

The North Carolina **COMMON FOLLOW-UP SYSTEM** Operations & Evaluation Report

2017



The North Carolina Common Follow-Up System
Operations & Evaluation Report

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THE NORTH CAROLINA COMMON FOLLOW-UP SYSTEM (CFS) 2017 OPERATIONS AND EVALUATION REPORT

MAY 2018

BACKGROUND 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 publicly supported educational, employment, and training programs for use in policy-making, program evaluation, resource allocation, and career planning.

Chapter 96 of the North Carolina General Statute requires the North Carolina Department of Commerce's Labor and Economic Analysis Division (LEAD) to develop, implement, and maintain a common follow-up information management system (CFS) for tracking performance measures related to current and former participants in State job training, education, and placement programs. LEAD is also charged with evaluating the effectiveness of programs and determining if specific program goals and objectives are attained, determining placement rates for each program, and with making recommendations regarding programs evaluated.

Each year, the participating agencies supply data files in a program year. For the 2015-2016 CFS year, the participating agencies submitted data files covering the time period July 1, 2015 through June 30, 2016. These formatted input files are created from existing information systems at each of the participating agencies and contain information on demographics, program enrollment and completion, and other relevant program data for individuals participating in programs and services operated by each of the contributing agencies.

Once the agency data files are received, a series of edit checks are performed to ensure comparability and accuracy. Data quality edit reports are produced and made available to each participating agency within the Government Data Analytics Center (GDAC) environment. Staff from the participating agencies review their own edit reports, make corrections to any data errors, and provide approval for loading data to the system. After the data files are approved by the contributing agencies, the LEAD staff review the agency edit reports and confer with the contributing agencies regarding any additional corrections. Once the data review is completed,

LEAD provides final approval and data are loaded to data warehouses within the GDAC environment.

In addition to the information supplied by the contributing agencies, the Division of Employment Security provides unemployment insurance wage and benefit-related information. These data, along with additional industry information available through LEAD's Quarterly Census of Employment and Wage program, are loaded to the CFS warehouses.

EVALUATION HIGHLIGHTS

The Common Follow-up System provides the mechanism for carrying out longitudinal analyses that can be utilized to develop measures of program performance. These measures can provide information to be used in assessing program effectiveness. As part of its responsibility for evaluating programs contained in the CFS, the North Carolina Department of Commerce's Labor and Economic Analysis Division (LEAD) undertook a series of analyses to measure the educational and employment outcomes of individuals participating in several of North Carolina's public education, employment, and training programs. The goal was to develop key evaluative performance indicators related to employment and wage outcomes, as well as further participation in education and employment programs. It is intended that these measures can be utilized in concert with other programmatic information to aid in the assessment of program effectiveness.

Analyses focused on addressing four key questions: What percentage of former participants and completers of publicly supported education, employment, and training programs are employed in North Carolina during the years following their participation in these programs? What are the wage outcomes of these individuals? How do employment and wage outcomes vary by industry? To what extent do these individuals enroll in subsequent education, employment, or training programs?

The outcome measures were calculated for five program year-based cohort groups for each program and include

outcome measures for up to five years post-exit/graduation. Relevant employment and wage statistics include the number and percent employed in North Carolina, median and average wages for each program, along with summary employment and wage statistics by industry. Post-enrollment measures include post participation in education, employment, and training programs.

METHODOLOGY

Data from the North Carolina Common Follow-up System were utilized to perform a series of longitudinal analyses that focused on assessing the educational and employment outcomes of individuals participating in publicly supported education, employment, or training-related programs. Participating entities supply data files to the CFS that encompass a program year. These formatted files are created from existing information systems at each of the entities and contain demographic and program-related information for individuals participating in programs and services operated by each of the contributing entities. In addition to the agency data, the CFS contains information provided by the Division of Employment Security including quarterly unemployment insurance wage files and unemployment insurance claims-related information.

Analyses were accomplished by matching individual program participant data across programs and agencies to information in the unemployment insurance (UI) wage file. Specifically, CFS data were used to compile outcome information for five program year cohorts. Each of the participating agencies operates a diverse set of programs and services. These programs vary in terms of participant characteristics, operational guidelines and procedures, and program goals. As a result, program definitions - including participation, exit and completion - can differ across programs. These operational differences provide some inherent challenges when assessing outcomes across programs. This report includes outcome information for exit and completion cohorts, utilizing definitions specific to each of the assessed programs. Therefore, the specific definitions of participant, exiter, and/or completer are provided in each of the corresponding program sections of this report.

Employment and wage outcomes were derived for each program exiter/completer cohort. Information from the quarterly UI wage data was utilized to develop employment and wage statistics. Wage data for each exiter was summed across the four quarters immediately following the exit/completion quarter to produce a one year post-exit/completion wage. Wage information from the subsequent

four quarters were summed to produce a two-year post-exit/completion wage. Successive four quarters were summed to produce subsequent post-exit/completion wage statistics. If an individual had wages in any of the four quarters of the corresponding year, they were counted as employed. Employment and wage outcomes were compiled separately for each cohort.

Further analyses of industry employment and wage patterns were also undertaken. Each employer in the state who is covered by the state's unemployment insurance laws is assigned a North American Industry Classification (NAICS) code. Codes are assigned to each employer based on the primary industry function of the employing unit. The NAICS coding system provides a hierarchical coding scheme that allows for the grouping of codes into broader industry sectors. Post-employment statistics were calculated for each program exit/completion cohort by 13 different industry sectors. Individuals can be employed in more than one industry within a year or even within a quarter. In those instances where an individual was found to be employed in more than one industry sector, they were counted separately in each sector but only once in the total employment statistics.

Analysis of post participation in additional education, employment, and training was completed by cross-matching the information across entities and programs. Three measures were developed; the first measure included the number and percentage of individuals who participated in public higher education. This was compiled by cross-matching the exit or completion cohort to records from the North Carolina Community College System and to records from the University of North Carolina System. If an individual was found to be participating in any program through either of those systems, they were counted as being enrolled in public higher education. The second measure of post participation in education, employment, or training programs was compiled by matching each exit/completion cohort to data from each of the other participating entities. If an individual was found to be enrolled or receiving services at any of those entities, they were counted as being enrolled in further public education, employment, or training. The third measure integrates the information from the second measure along with the employment-related information. The result is a measure of whether individuals were either employed or enrolled in further public education, employment, or training programs.

LIMITATIONS

While the CFS provides a rich source of information regarding the participation of individuals in various education, employment and training programs, the data are not without limitations. Information supplied by each of the agencies participating in the CFS comes from existing systems within each agency. Any data limitations that exist in those source systems, data repositories, and corresponding data elements are transferred along with the data to the CFS. CFS does not include information from North Carolina's private educational institutions, out-of-state colleges and universities, or other employment and training-related service providers that do not provide information to the system.

In addition to limitations in agency data, the unemployment insurance wage data has its own limitations. Available wage files include information on individuals working in jobs covered by North Carolina's unemployment insurance laws. Available employment-related information includes: quarterly wages paid to an individual, size of the employing firm, and the NAICS code of the firm. Wage information reflects total quarterly wages and is not available for individuals who work outside of North Carolina; are employed in North Carolina but not covered by North Carolina's unemployment insurance laws (e.g., the self-employed, church and religious organization employees, summer camp employees, and other non-covered workers); are enrolled in the military; or are employed by the federal government. Employment-related data that cannot be determined include: the entry-on-duty date of employment for the person; the employment type (i.e., permanent, temporary, part- or full-time); how much the person worked during the quarter; the number of hours worked; and the person's occupation.

Additionally, the CFS relies on the use of Social Security Numbers (SSNs) to match program participation with employment-related information. If SSNs are not available, the matching of data across agency and employment sources is problematic. LEAD is currently working with the GDAC to enhance system capability to match data utilizing additional identity resolution methodologies, which will assist in future analytical efforts.

PROGRAMS ASSESSED

The Common Follow-up System contains information on a diverse set of education, employment, and training programs and services. Analyses included in this report focused on 17 programs across four agencies. These included the following:

DEPARTMENT OF COMMERCE

Division of Workforce Solutions:

1. Workforce Investment Act (WIA) Title I Adult Program
2. Workforce Investment Act (WIA) Title I Dislocated Worker Program
3. Workforce Investment Act (WIA) Title I Youth Program
4. Wagner-Peyser Program

DEPARTMENT OF HEALTH AND HUMAN SERVICES

5. Division of Social Services - Work First - Temporary Assistance for Needy Families (TANF)
6. Division of Vocational Rehabilitation Services
7. Division of Services for the Blind

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

8. Career and Technical Education Programs
9. Workforce Continuing Education Training
10. Human Resources Development Programs
11. Basic Skills Programs
12. Customized Training Program
13. Apprenticeship Program

UNIVERSITY OF NORTH CAROLINA SYSTEM

14. Bachelors Programs
15. Masters Programs
16. Doctoral (Research) Programs
17. Doctoral (Professional Practice) Programs

THE DEPARTMENT OF COMMERCE

DIVISION OF WORKFORCE SOLUTIONS

OVERVIEW OF WIA AND WIOA TITLE I PROGRAMS

The Workforce Investment Act (WIA) of 1998 authorized the nation's federally funded workforce development system and provided funding for services to employers and job seekers. WIA Title I programs consisted of three distinct funding streams: Adult, Dislocated Workers, and Youth. In July of 2014, the Workforce Innovation and Opportunity Act (WIOA) was signed into law, and superseded WIA. WIOA is designed to help job seekers access the employment, education, training, and support services they need to succeed in the labor market, and to match employers with the skilled workers they need to compete in the global economy. Part of the goal of WIOA is to provide opportunity for reforms of local service centers, known as the American Job Center system, and to ensure that the system is responding to the needs of employers and preparing workers for jobs that are available now and in the future.¹ The act took effect on July 1, 2015.

WIA Title I Adult and Dislocated Worker programs were designed to increase employment and employment retention, increase earnings of dislocated workers, and enhance customer satisfaction for both participants and employers.² Both WIOA and WIA Adult and Dislocated Worker programs, a variety of education, employment-related, and training services are provided to eligible customers. Changes implemented with WIOA include the provision of both career and training services, replacing the WIA service levels of core, intensive, and training services. The Adult and Dislocated Worker programs provide comprehensive assessments, career and labor market information, job search and placement assistance, counseling, and occupational and basic skills training. Additional supportive services, including assistance with transportation, childcare, dependent care, housing, and other needs-related payments, are available to help facilitate program participation. Funds also help to support Rapid Response services that assist employers and workers in the event of company layoffs and closings.³

The WIOA Title I Youth program is designed to serve low-income youth who face barriers to continued education and employment. Specific services that are made available include case management, tutoring, alternative secondary school offerings, the provision of work experience, occupational skill training, leadership development opportunities, mentoring, guidance, counseling, and support. Eligibility is defined separately for out-of-school youth aged 16-24 and in-school youth aged 14-21. Funds for youth services are allocated to states and local areas based on a formula. At least 75% of state and local youth funding must be allocated for out-of-school youth and a minimum 20% of local youth formula funds must be used for work experiences, such as summer and year-round employment, pre-apprenticeship, on-the-job training, or internships and job shadowing.⁴

¹ U.S. Department of Labor Employment and Training Administration website, doleta.gov/wioa

² U.S. Department of Labor Employment and Training Administration website, doleta.gov/programs/general_info.cfm

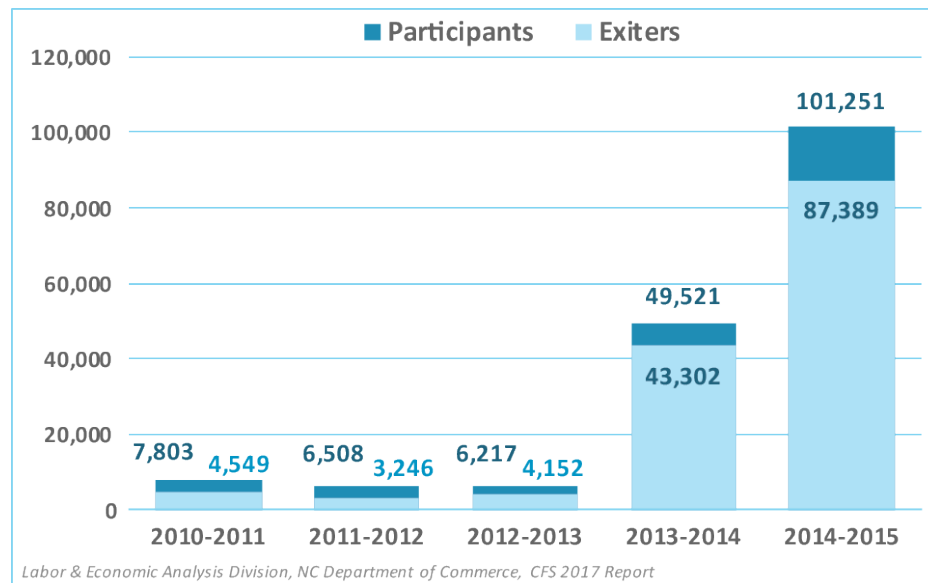
³ Ibid.

⁴ U.S. Department of Labor Employment and Training Administration website, doleta.gov/wioa/Docs/WIOA_YouthProgram_FactSheet.pdf

WIA/WIOA TITLE I ADULT PROGRAM OUTCOMES

Analyses of program participant counts revealed that there was a slight decline in the number of WIA and WIOA Adult program participants between the 2009-2010 and 2012-2013 program years, followed by very large increases in both 2013-2014 and 2014-2015 program years (*Figure 1*). Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

FIGURE 1.
WIA/WIOA Title I Adult Program Participants and Exiters by Program Year

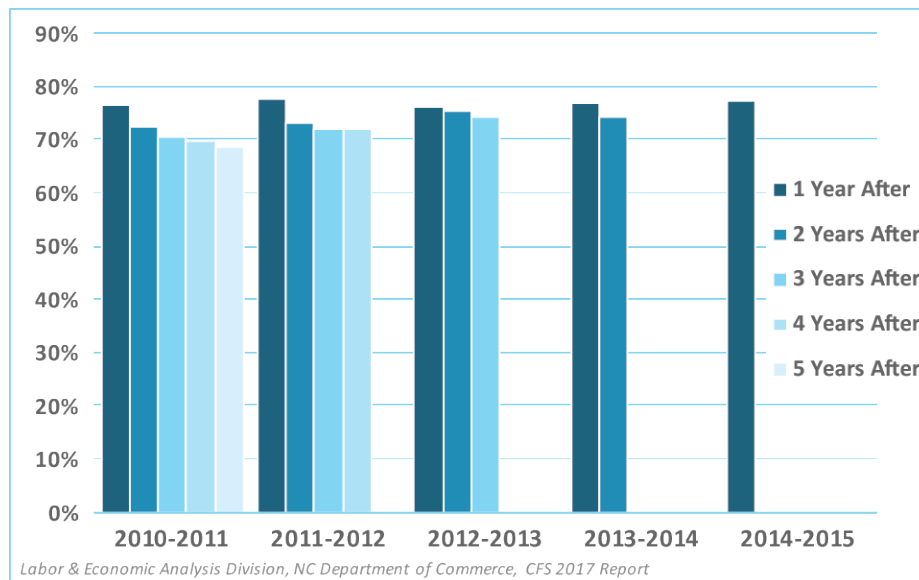


WIOA was implemented in July 2015, therefore post-exit wage and employment statistics for the first WIOA exit cohort will be included in future reports. Employment and wage outcomes were derived for each cohort of WIA program exiters. These included analyses of post-exit employment rates (*Figure 2*) and wages (*Figure 3*) for up to five years after exit (*also see Table 1*). These measures include only those individuals who were employed in North Carolina in jobs covered by the state's unemployment insurance laws.

One-year post-exit employment rates have been relatively stable across the five program years (*Figure 2*) while enrollment in North Carolina public higher education one year after exit declined during the same program years (*Table 1*).

As shown in Figure 2, longer term post-exit employment measures show a slight decline in the percentage of WIA Title I Adult exiters employed in North Carolina, which may be due in part to former participants leaving the state or entering employment not covered by unemployment insurance.

FIGURE 2.
Percentage of WIA Title I Adult Exiters Employed in North Carolina After Exit, by Year of Exit



One-year post-exit median annual wages ranged from \$13,322 for the 2013-2014 program year exiters to a high of \$15,043 for the 2014-2015 exiters (*Figure 3, Table 1*). For all cohorts, the median wage of former participants rose consistently in each subsequent year following program exit. For example, the median wages of participants who exited in program year 2010-2011 increased from \$14,012 one year after exit to \$21,446 five years after exit.

FIGURE 3.
Median Wage of WIA Title I Adult Program Exiters in North Carolina, by Year of Exit

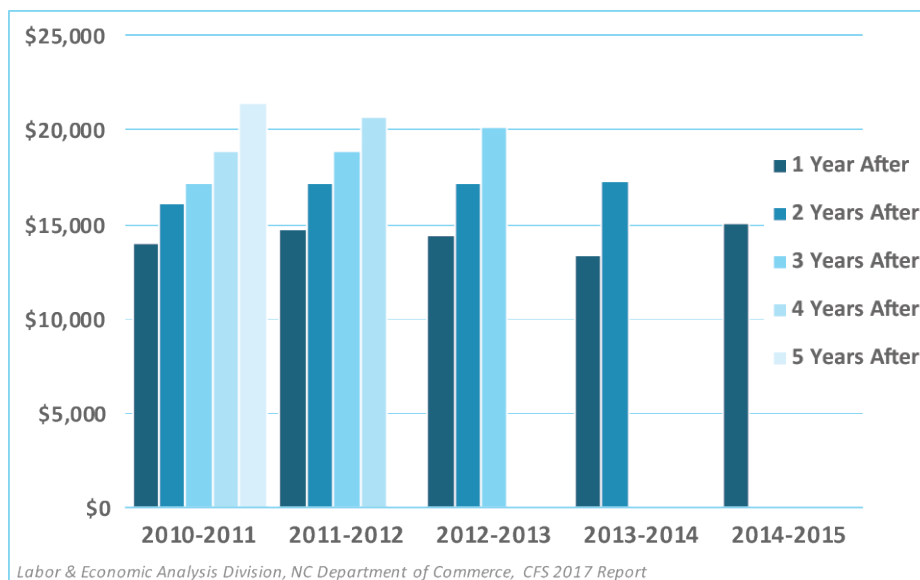
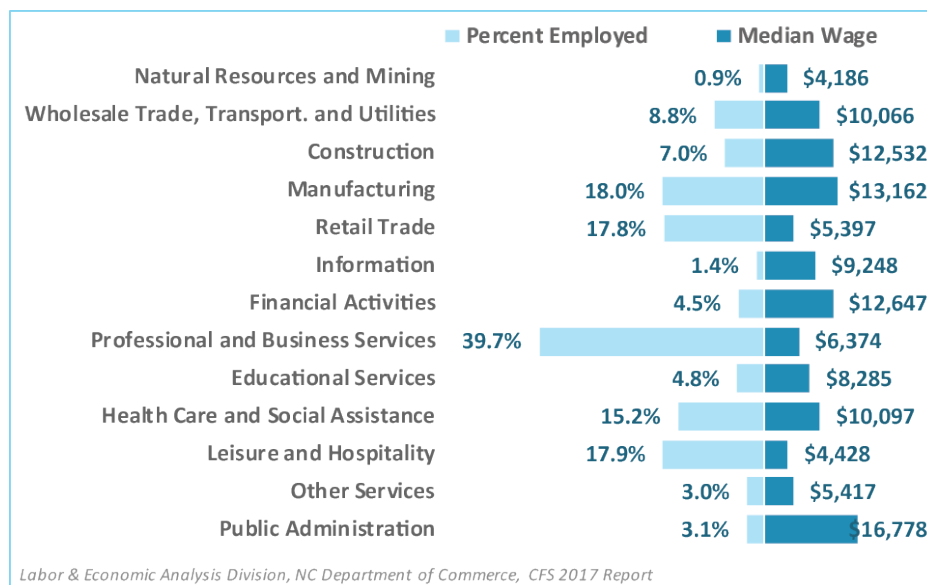


FIGURE 4.
2014-2015 WIA Title I Adult Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



Employment outcomes by industry one year after exit for the 2014-2015 cohort show 40% of WIA Adult program exiters were employed in the Professional and Business Services industry, earning a median annual wage of \$6,374. Other industries employing the 2014-2015 cohort exiters include Manufacturing (18%), Leisure and Hospitality (18%), Retail Trade (18%), and Health Care and Social Assistance (15%). Of these industries, Manufacturing had the highest median annual wage (\$13,162) (Figure 4, Table 1).

Overall, the results indicate that there have been fairly stable short-term employment rates and some fluctuation in wages for WIA Adult program exiters. This is indicated by the one-year post-employment and wage trends. When exiters are followed over time, the employment rate tends to decline somewhat, while the median wages continue to rise over time. The median wage of the 2010-2011 WIA Adult exiters was \$14,012 during first year after exit; by the fifth year after exit the median wages rose to \$21,446. By contrast, the 2015 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.⁵

⁵ Source of wage data: Common Follow-up System. For comparison, the 2015 median annual wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 1.

WIA/WIOA Title I Adult Program Participants and Exitters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

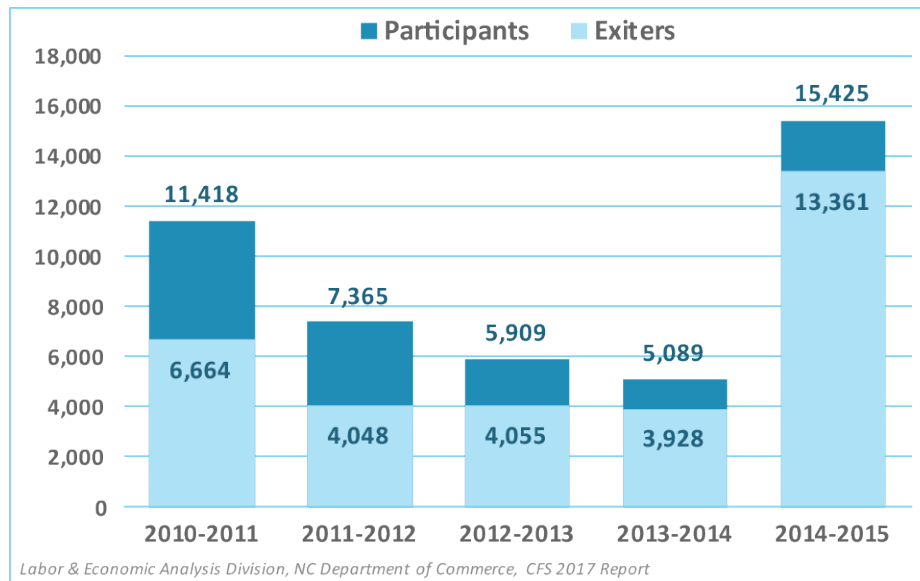
North Carolina Department of Commerce, Division of Workforce Solutions										Common Follow-up System: Evaluative Measures, 2017 Report						
Workforce Investment Act - Adult Program										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce						
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		7,803	6,508	6,217	49,521	101,251	7,803	6,508	6,217	49,521	7,803	6,508	6,217	7,803	6,508	7,803
Exiters		4,549	3,246	4,152	43,302	87,389	4,549	3,246	4,152	43,302	4,549	3,246	4,152	4,549	3,246	4,549
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N	3,476	2,513	3,160	33,297	67,633	3,289	2,378	3,130	32,075	3,207	2,337	3,076	3,173	2,337	3,128
	%	76%	77%	76%	77%	77%	72%	73%	75%	74%	70%	72%	74%	70%	72%	69%
Exiters' Wages in North Carolina	Mean	\$17,448	\$17,746	\$17,517	\$16,722	\$18,743	\$19,366	\$19,955	\$20,291	\$20,740	\$20,671	\$21,884	\$23,080	\$22,110	\$23,959	\$24,534
	Median	\$14,012	\$14,719	\$14,476	\$13,322	\$15,043	\$16,116	\$17,164	\$17,231	\$17,239	\$17,167	\$18,882	\$20,143	\$18,852	\$20,686	\$21,446
Exiters Enrolled in NC Public Higher Education	N	1,356	952	1,330	8,093	12,676	1,144	791	1,066	5,794	971	668	800	859	523	670
	%	30%	29%	32%	19%	15%	25%	24%	26%	13%	21%	21%	19%	19%	16%	15%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	2,419	1,681	2,586	24,655	40,752	2,008	1,407	1,875	16,195	1,692	1,249	1,932	1,582	1,205	1,565
	%	53%	52%	62%	57%	47%	44%	43%	45%	37%	37%	38%	47%	35%	37%	34%
Exiters Enrolled or Employed in NC	N	3,971	2,840	3,764	37,982	74,708	3,725	2,678	3,455	34,595	3,568	2,584	3,431	3,457	2,547	3,427
	%	87%	87%	91%	88%	85%	82%	83%	83%	80%	78%	80%	83%	76%	78%	75%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.6%	0.4%	0.5%	1.1%	0.9%	0.4%	0.6%	0.5%	1.1%	0.3%	0.6%	0.5%	0.4%	0.5%	0.3%
Wholesale Trade, Transport. and Utilities		5.2%	7.2%	6.2%	7.8%	8.8%	5.6%	6.8%	7.1%	8.4%	6.6%	7.5%	7.6%	6.6%	8.6%	7.6%
Construction		3.6%	3.7%	3.1%	6.6%	7.0%	3.0%	3.5%	3.6%	6.5%	3.2%	3.3%	3.7%	3.6%	3.4%	3.9%
Manufacturing		10.2%	10.6%	9.4%	20.0%	18.0%	10.8%	10.7%	10.6%	20.7%	10.6%	11.3%	11.5%	11.7%	11.2%	12.1%
Retail Trade		15.0%	13.9%	15.4%	17.7%	17.8%	13.8%	14.7%	14.3%	16.6%	13.8%	14.3%	12.9%	13.8%	14.2%	12.8%
Information		1.2%	0.8%	0.8%	1.1%	1.4%	1.1%	0.8%	1.2%	1.1%	1.2%	1.1%	1.1%	1.1%	1.0%	1.0%
Financial Activities		3.0%	3.8%	4.7%	4.4%	4.5%	3.1%	4.2%	4.0%	4.1%	3.3%	5.2%	4.9%	4.4%	5.3%	4.2%
Professional and Business Services		28.9%	29.4%	29.4%	39.5%	39.7%	25.3%	26.4%	26.0%	32.8%	24.4%	25.1%	23.1%	24.5%	24.6%	24.0%
Educational Services		5.5%	6.0%	6.6%	4.5%	4.8%	5.9%	6.3%	6.5%	4.6%	6.1%	6.7%	6.5%	6.6%	7.3%	7.0%
Health Care and Social Assistance		43.2%	38.0%	37.1%	16.1%	15.2%	40.5%	38.0%	38.6%	17.1%	39.0%	36.9%	38.6%	38.2%	35.6%	38.7%
Leisure and Hospitality		13.3%	13.5%	15.1%	18.0%	17.9%	13.2%	12.7%	13.5%	16.9%	13.1%	12.6%	13.1%	12.7%	12.5%	12.3%
Other Services		2.6%	2.4%	2.8%	2.8%	3.0%	2.3%	2.1%	2.6%	2.9%	2.8%	2.1%	2.9%	2.5%	2.4%	2.5%
Public Administration		3.6%	3.5%	4.3%	3.2%	3.1%	3.6%	4.0%	4.9%	3.7%	3.9%	4.4%	5.1%	4.6%	4.7%	4.9%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$1,745	\$12,911	\$1,918	\$3,495	\$4,186	\$3,252	\$4,560	\$4,579	\$4,686	\$6,046	\$4,010	\$5,874	\$2,521	\$9,669	\$3,410
Wholesale Trade, Transport. and Utilities		\$9,870	\$7,931	\$8,860	\$9,665	\$10,066	\$12,167	\$12,313	\$10,670	\$13,292	\$13,809	\$19,758	\$12,401	\$19,704	\$10,183	\$16,070
Construction		\$8,826	\$9,675	\$11,754	\$11,124	\$12,532	\$10,076	\$7,613	\$13,680	\$15,335	\$10,941	\$10,775	\$11,232	\$9,353	\$10,497	\$16,225
Manufacturing		\$11,144	\$13,047	\$16,383	\$11,779	\$13,162	\$15,943	\$18,870	\$18,856	\$17,424	\$18,348	\$17,832	\$21,296	\$19,597	\$22,920	\$22,871
Retail Trade		\$4,867	\$4,760	\$3,950	\$4,896	\$5,397	\$5,383	\$5,287	\$4,220	\$6,631	\$5,485	\$6,161	\$5,493	\$5,220	\$6,494	\$5,506
Information		\$13,781	\$9,924	\$22,593	\$9,405	\$9,248	\$14,964	\$7,981	\$15,077	\$12,203	\$12,089	\$11,363	\$20,406	\$12,085	\$8,853	\$12,412
Financial Activities		\$7,183	\$7,822	\$4,384	\$5,876	\$12,647	\$10,542	\$16,982	\$11,923	\$15,277	\$10,156	\$13,800	\$8,957	\$6,390	\$17,571	\$16,997
Professional and Business Services		\$4,497	\$5,165	\$4,970	\$5,561	\$6,374	\$4,407	\$5,567	\$5,263	\$6,216	\$5,256	\$6,083	\$5,326	\$5,451	\$6,103	\$5,954
Educational Services		\$7,984	\$8,496	\$6,106	\$7,690	\$8,285	\$7,527	\$9,646	\$8,348	\$10,801	\$7,420	\$14,350	\$10,264	\$7,856	\$14,355	\$10,402
Health Care and Social Assistance		\$14,736	\$15,123	\$14,419	\$9,208	\$10,097	\$17,712	\$16,837	\$17,130	\$13,152	\$18,904	\$18,433	\$20,130	\$19,908	\$21,488	\$21,685
Leisure and Hospitality		\$2,798	\$4,053	\$3,916	\$3,901	\$4,428	\$4,238	\$3,482	\$4,140	\$4,520	\$3,398	\$3,689	\$3,586	\$4,067	\$3,623	\$4,386
Other Services		\$4,780	\$5,132	\$5,459	\$3,859	\$5,417	\$5,906	\$4,619	\$7,480	\$5,759	\$4,707	\$6,001	\$3,418	\$5,495	\$5,239	\$6,965
Public Administration		\$13,431	\$13,610	\$15,958	\$14,168	\$16,778	\$21,995	\$19,324	\$19,164	\$21,718	\$25,118	\$22,656	\$24,270	\$24,480	\$24,906	\$27,451
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$4,363	\$12,062	\$7,146	\$8,017	\$9,801	\$6,392	\$8,022	\$7,378	\$9,880	\$10,189	\$7,472	\$9,375	\$7,835	\$8,900	\$9,719
Wholesale Trade, Transport. and Utilities		\$14,359	\$12,572	\$12,548	\$14,549	\$15,948	\$17,070	\$16,722	\$15,208	\$18,699	\$18,496	\$19,471	\$17,425	\$21,610	\$17,027	\$20,444
Construction		\$12,507	\$12,976	\$15,017	\$15,797	\$17,270	\$14,921	\$13,706	\$16,460	\$19,700	\$15,868	\$15,826	\$16,430	\$15,558	\$17,245	\$20,746
Manufacturing		\$16,032	\$17,053	\$17,954	\$15,920	\$16,759	\$18,801	\$20,633	\$20,916	\$20,353	\$21,865	\$22,184	\$22,547	\$22,636	\$25,849	\$25,300
Retail Trade		\$7,704	\$7,747	\$7,136	\$8,056	\$9,197	\$8,647	\$9,040	\$7,854	\$10,730	\$9,179	\$9,996	\$9,588	\$9,156	\$10,231	\$10,179
Information		\$17,073	\$15,350	\$21,033	\$17,519	\$17,932	\$21,730	\$15,525	\$20,883	\$20,198	\$21,267	\$17,052	\$27,754	\$22,848	\$17,997	\$24,893
Financial Activities		\$12,401	\$13,136	\$11,325	\$13,536	\$19,205	\$14,588	\$18,058	\$17,759	\$21,914	\$15,744	\$17,337	\$18,399	\$14,265	\$19,649	\$20,170
Professional and Business Services		\$8,059	\$9,276	\$9,759	\$10,014	\$11,638	\$8,912	\$10,137	\$10,541	\$11,971	\$9,709	\$11,149	\$11,735	\$10,309	\$12,258	\$11,260
Educational Services		\$9,864	\$11,729	\$10,498	\$11,751	\$12,984	\$11,105	\$13,462	\$11,930	\$14,913	\$11,539	\$15,753	\$14,196	\$13,145	\$17,373	\$14,849
Health Care and Social Assistance		\$18,735	\$18,975	\$17,827	\$12,669	\$13,546	\$21,414	\$20,757	\$20,721	\$16,451	\$22,589	\$22,381	\$23,763	\$23,474	\$25,054	\$24,913
Leisure and Hospitality		\$5,430	\$6,239	\$6,256	\$6,559	\$7,625	\$6,494	\$6,380	\$6,805	\$7,961	\$6,587	\$6,808	\$6,910	\$6,995	\$6,827	\$7,423
Other Services		\$8,067	\$7,370	\$8,665	\$8,844	\$10,103	\$9,983	\$9,256	\$9,637	\$11,541	\$9,083	\$10,311	\$9,158	\$10,675	\$8,985	\$11,818
Public Administration		\$16,195	\$15,936	\$16,797	\$16,070	\$18,322	\$21,025	\$19,036	\$18,356	\$20,744	\$22,241	\$20,652	\$22,299	\$22,739	\$23,387	\$24,490

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

WIA/WIOA TITLE I DISLOCATED WORKER PROGRAM OUTCOMES

As shown in Figure 5, analyses indicate a progressive decrease in the number of participants in the WIA Dislocated Worker program between the 2010-2011 and 2013-2014 program years, followed by a large increase in the 2014-2015 program year. Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

FIGURE 5.
WIA/WIOA Title I Dislocated Worker Program Participants and Exiters by Program Year

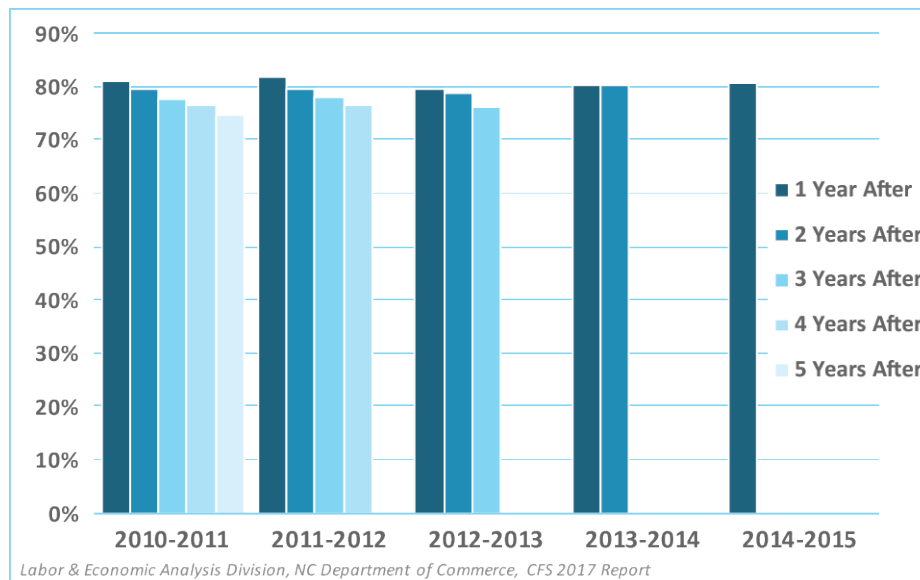


WIOA was implemented in July 2015, therefore post-exit wage and employment statistics for the first WIOA exit cohort will be included in future reports. Employment and wage outcomes were derived for each WIA Title I Dislocated Worker exit cohort between 2010-2011 and 2014-2015. These included measures of post-exit employment rates (*Figure 6*) and wages (*Figure 7*) for up to five years after exit (*also see Table 2*). These measures include only those individuals who are employed in North Carolina in jobs covered by the state's unemployment insurance laws.

One-year post-exit employment rates were relatively stable across the five cohorts, ranging from 79% to 82% (*Figure 6, Table 2*), while subsequent enrollment in NC public higher education declined across cohorts (*Table 2*). Longer term post-exit employment measures indicate that even five years after exit, three-quarters of the 2010-2011 exiting cohort were employed in North Carolina. Post-exit employment rates were relatively steady across cohorts for a given post-exit year.

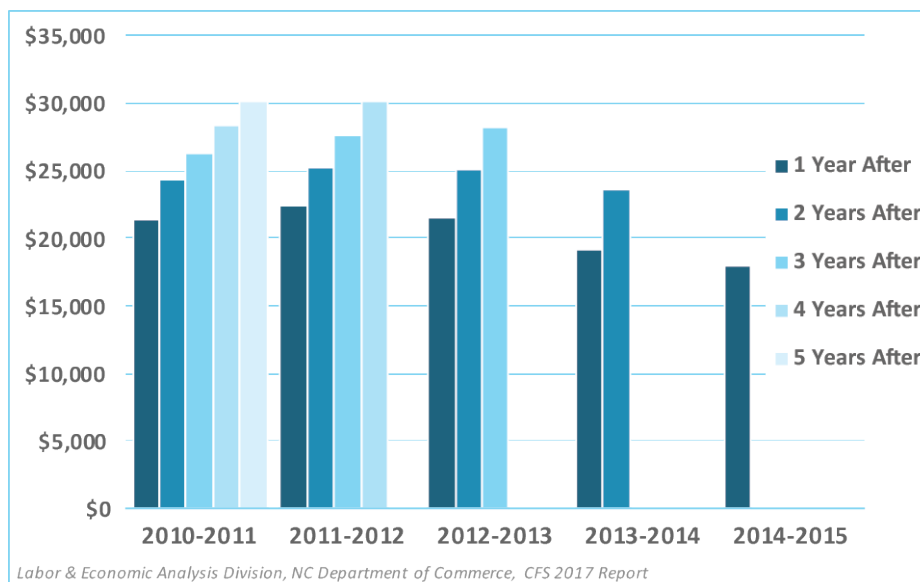
One-year post-exit median wages increased slightly from \$21,390 in the 2010-2011 cohort to \$22,382 in the 2011-2012 cohort, and then declined in subsequent cohorts. The 2012-2013 cohort earned a median wage of \$21,466 one year after exiting the program, while the 2013-2014 and 2014-2015 cohorts earned median annual wages of \$19,143 and \$18,026, respectively (Figure 7).

FIGURE 6.
Percentage of WIA Title I Dislocated Worker Program Exiters Employed in North Carolina After Completion, by Year of Exit



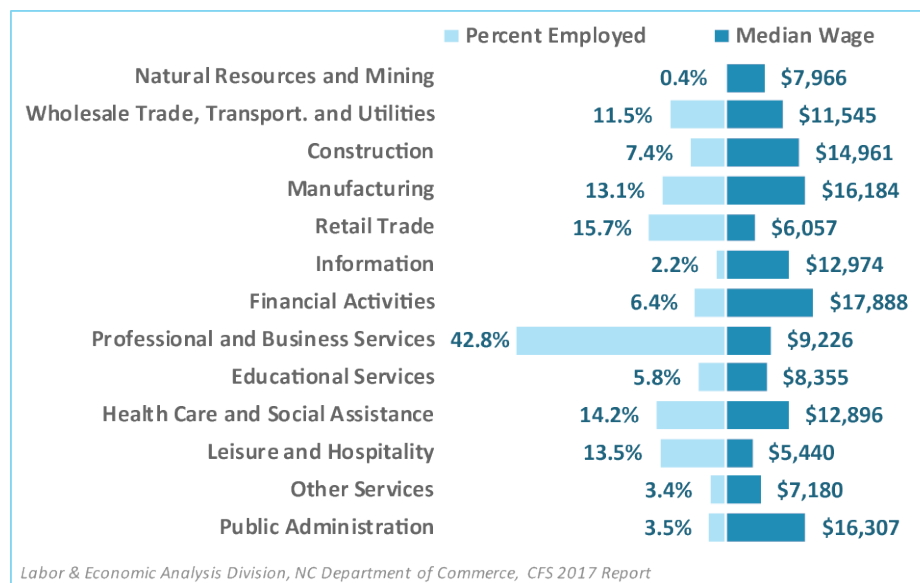
However, median post-exit wages increased over time within all cohorts. The 2010-2011 exiters experienced a growth in median wages from \$21,390 one year after exit to \$26,213 three years after exit and \$30,175 at the five-year mark, while the 2012-2013 exiters saw median wages grow from \$21,466 one year post exit to \$28,173 three years post exit.

FIGURE 7.
Median Wage of WIA Title I Dislocated Worker Program Exiters in North Carolina, by Year of Exit



As shown in Figure 8 and Table 2, one-year employment outcomes by industry for the 2014-2015 cohort exiters indicate 43% of exited WIA Dislocated Worker program participants were employed in the Professional and Business Services industry, earning a median annual wage of \$9,226. Other industries employing this cohort one year after exiting the program include Retail Trade (16%), Health Care and Social Assistance (14%), Leisure and Hospitality (14%), Manufacturing (13%), and Wholesale Trade, Transportation, and Utilities (12%). Of these industries, Manufacturing was associated with the highest median annual wage (\$16,184).

FIGURE 8.
2014-2015 WIA Title I Dislocated Worker Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



Overall, the results reveal that there have been fairly stable and positive short-term employment rates and some short-term fluctuation in wages for WIA Dislocated Worker program exiters. This is indicated by the one-year post-employment and wage trends. When exiting cohorts are followed over time, the employment rate tends to decline somewhat, while the median wages rise. The median wage of WIA Dislocated Worker participants who exited in the 2010-2011 program year was \$30,175 five years after exit. By contrast, the 2015 annual median wage in North Carolina for all wage earners covered in unemployment insurance was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.⁶

⁶ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 2.

WIA/WIOA Title I Dislocated Worker Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

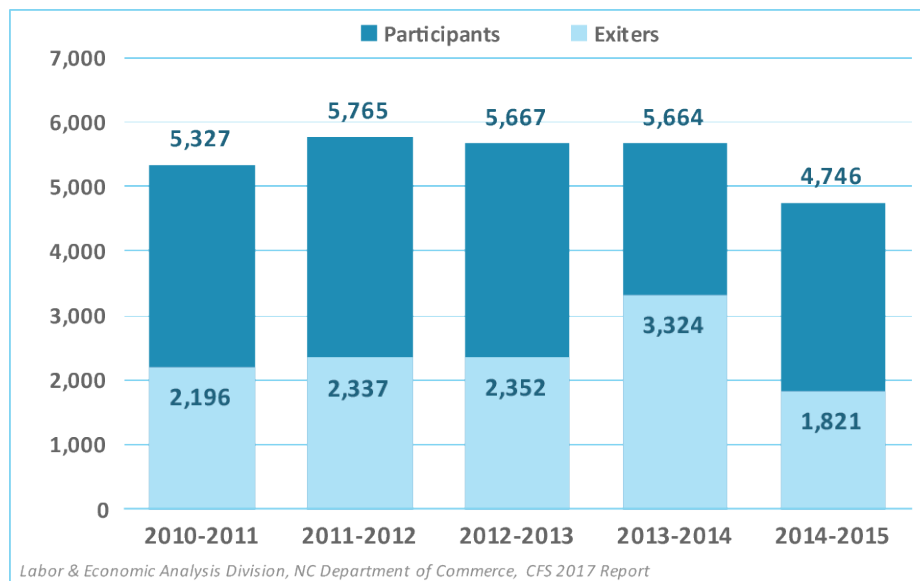
North Carolina Department of Commerce, Division of Workforce Solutions											Common Follow-up System: Evaluative Measures, 2017 Report					
Workforce Investment Act - Dislocated Worker Program											Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce					
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		11,418	7,365	5,909	5,089	15,425	11,418	7,365	5,909	5,089	11,418	7,365	5,909	11,418	7,365	11,418
Exiters		6,664	4,048	4,055	3,928	13,361	6,664	4,048	4,055	3,928	6,664	4,048	4,055	6,664	4,048	6,664
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N %	5,387 81%	3,315 82%	3,220 79%	3,151 80%	10,757 81%	5,288 79%	3,216 79%	3,187 79%	3,150 80%	5,165 78%	3,153 78%	3,084 76%	5,086 76%	3,091 76%	4,966 75%
Exiters' Wages in North Carolina	Mean Median	\$24,974 \$21,390	\$24,921 \$22,382	\$23,956 \$21,466	\$22,903 \$19,143	\$22,614 \$18,026	\$27,310 \$24,358	\$27,786 \$25,207	\$27,484 \$25,030	\$27,571 \$23,641	\$29,562 \$26,213	\$30,544 \$27,575	\$30,674 \$28,173	\$31,725 \$28,315	\$32,854 \$30,089	\$33,429 \$30,175
Exiters Enrolled in NC Public Higher Education	N %	1,520 23%	936 23%	1,081 27%	1,086 28%	1,775 13%	1,255 19%	692 17%	785 19%	690 18%	1,085 16%	593 15%	581 14%	889 13%	499 12%	723 11%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	3,315 50%	1,841 45%	2,430 60%	2,321 59%	5,773 43%	2,388 36%	1,328 33%	1,497 37%	1,616 41%	2,018 30%	1,168 29%	1,595 39%	1,753 26%	1,251 31%	1,821 27%
Exiters Enrolled or Employed in NC	N %	5,968 90%	3,569 88%	3,699 91%	3,575 91%	11,563 87%	5,668 85%	3,410 84%	3,401 84%	3,352 85%	5,477 82%	3,297 81%	3,357 83%	5,302 80%	3,295 81%	5,245 79%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.4%	0.5%	0.3%	0.6%	0.4%	0.5%	0.4%	0.4%	0.6%	0.5%	0.3%	0.5%	0.6%	0.4%	0.5%
Wholesale Trade, Transport. and Utilities		9.2%	11.0%	9.7%	12.4%	11.5%	8.9%	10.1%	9.7%	12.3%	8.8%	9.5%	9.8%	9.2%	10.3%	9.9%
Construction		6.2%	5.3%	5.4%	6.2%	7.4%	5.3%	5.0%	5.8%	6.2%	5.2%	4.8%	5.5%	5.3%	4.7%	5.2%
Manufacturing		23.3%	20.8%	17.4%	21.4%	13.1%	25.0%	21.8%	18.4%	20.5%	25.9%	22.5%	18.9%	26.6%	23.1%	27.3%
Retail Trade		12.5%	13.4%	13.5%	14.2%	15.7%	11.4%	13.3%	12.5%	13.4%	11.3%	12.4%	11.3%	10.9%	11.5%	10.4%
Information		1.5%	1.7%	1.5%	1.7%	2.2%	1.2%	1.4%	1.7%	1.6%	1.3%	1.8%	1.7%	1.5%	1.7%	1.4%
Financial Activities		4.1%	4.6%	4.8%	5.3%	6.4%	4.2%	4.9%	5.0%	5.3%	4.6%	5.1%	5.1%	4.9%	5.3%	4.9%
Professional and Business Services		32.0%	29.3%	35.1%	36.4%	42.8%	26.2%	25.6%	29.1%	29.1%	23.5%	24.8%	25.7%	22.0%	22.3%	20.8%
Educational Services		5.8%	7.2%	8.0%	5.5%	5.8%	6.0%	7.3%	8.1%	5.3%	6.3%	7.5%	7.8%	6.1%	7.2%	6.2%
Health Care and Social Assistance		25.8%	23.8%	25.1%	18.6%	14.2%	24.8%	23.4%	24.1%	20.4%	24.8%	22.4%	24.8%	23.8%	22.3%	23.6%
Leisure and Hospitality		6.1%	6.0%	7.6%	10.2%	13.5%	5.8%	5.8%	6.7%	9.3%	5.6%	5.7%	6.2%	5.4%	5.8%	5.5%
Other Services		2.5%	2.7%	3.0%	2.9%	3.4%	2.4%	2.7%	2.9%	2.6%	2.3%	2.9%	2.7%	2.0%	2.7%	2.2%
Public Administration		4.4%	4.6%	5.2%	4.2%	3.5%	4.3%	5.0%	5.3%	4.6%	4.7%	5.4%	5.7%	4.8%	5.8%	4.7%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$10,718	\$8,414	\$7,365	\$7,479	\$7,966	\$11,670	\$32,129	\$2,895	\$20,245	\$16,861	\$27,973	\$5,175	\$11,254	\$25,357	\$20,495
Wholesale Trade, Transport. and Utilities		\$16,004	\$17,464	\$17,272	\$12,904	\$11,545	\$21,298	\$23,218	\$20,641	\$19,324	\$24,984	\$27,305	\$25,902	\$28,478	\$28,393	\$26,445
Construction		\$14,309	\$14,606	\$13,946	\$14,109	\$14,961	\$16,929	\$19,187	\$17,456	\$20,963	\$19,716	\$21,407	\$21,995	\$22,349	\$25,412	\$25,843
Manufacturing		\$29,319	\$27,615	\$23,948	\$19,437	\$16,184	\$33,455	\$31,090	\$28,678	\$27,326	\$35,808	\$34,298	\$32,353	\$38,042	\$35,967	\$39,525
Retail Trade		\$6,293	\$8,852	\$6,750	\$5,294	\$6,057	\$9,454	\$9,947	\$7,405	\$8,738	\$10,503	\$11,622	\$10,294	\$9,933	\$12,030	\$10,603
Information		\$16,510	\$11,644	\$25,421	\$12,577	\$12,974	\$15,118	\$27,125	\$32,057	\$20,590	\$20,714	\$20,569	\$22,358	\$27,937	\$31,756	\$24,612
Financial Activities		\$18,717	\$19,921	\$17,246	\$12,732	\$17,888	\$22,078	\$22,751	\$24,079	\$24,470	\$24,783	\$24,346	\$28,502	\$24,852	\$27,314	\$27,000
Professional and Business Services		\$9,078	\$10,423	\$10,203	\$8,371	\$9,226	\$9,758	\$11,284	\$12,829	\$10,949	\$11,244	\$13,253	\$14,550	\$12,286	\$12,748	\$12,330
Educational Services		\$8,600	\$8,654	\$9,362	\$6,429	\$8,355	\$14,363	\$12,563	\$14,918	\$8,818	\$14,151	\$15,913	\$19,777	\$16,997	\$20,235	\$18,373
Health Care and Social Assistance		\$15,922	\$17,499	\$16,461	\$14,744	\$12,896	\$18,643	\$20,455	\$20,383	\$17,514	\$20,105	\$22,225	\$22,502	\$21,470	\$23,610	\$22,574
Leisure and Hospitality		\$3,643	\$4,480	\$3,509	\$4,184	\$5,440	\$4,635	\$3,973	\$4,900	\$5,301	\$4,184	\$4,509	\$4,569	\$4,917	\$6,150	\$6,043
Other Services		\$6,651	\$7,667	\$9,113	\$7,418	\$7,180	\$8,917	\$11,531	\$10,751	\$9,489	\$11,676	\$11,319	\$8,286	\$13,261	\$16,384	\$13,734
Public Administration		\$20,541	\$23,608	\$19,542	\$20,286	\$16,307	\$26,767	\$26,880	\$27,127	\$25,819	\$27,227	\$28,540	\$28,346	\$28,466	\$29,538	\$30,005
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$14,607	\$15,959	\$9,963	\$12,795	\$10,322	\$16,623	\$27,314	\$14,448	\$18,853	\$17,900	\$23,009	\$12,192	\$17,391	\$23,472	\$22,394
Wholesale Trade, Transport. and Utilities		\$18,709	\$21,253	\$20,092	\$18,243	\$17,587	\$23,438	\$24,252	\$23,574	\$24,185	\$26,876	\$29,737	\$27,418	\$28,880	\$30,752	\$28,932
Construction		\$19,043	\$18,688	\$18,566	\$18,290	\$18,513	\$21,014	\$22,546	\$21,287	\$21,655	\$22,111	\$24,283	\$25,583	\$23,942	\$27,995	\$26,746
Manufacturing		\$33,240	\$28,485	\$25,969	\$23,241	\$21,048	\$35,335	\$31,916	\$30,776	\$29,496	\$37,946	\$35,734	\$34,204	\$40,748	\$37,309	\$42,079
Retail Trade		\$9,961	\$12,434	\$10,374	\$8,524	\$10,460	\$12,428	\$14,245	\$12,413	\$11,787	\$13,482	\$15,635	\$15,276	\$14,470	\$15,988	\$15,369
Information		\$19,318	\$20,630	\$26,711	\$19,487	\$20,838	\$21,151	\$32,771	\$31,294	\$26,043	\$24,758	\$31,698	\$30,264	\$28,559	\$37,758	\$30,944
Financial Activities		\$24,207	\$23,662	\$20,603	\$19,206	\$22,397	\$26,713	\$25,857	\$28,380	\$27,233	\$27,598	\$27,143	\$32,955	\$28,201	\$29,415	\$31,436
Professional and Business Services		\$14,363	\$15,661	\$16,239	\$14,946	\$16,094	\$16,187	\$16,775	\$18,244	\$18,865	\$17,580	\$18,797	\$21,053	\$19,575	\$20,982	\$20,046
Educational Services		\$13,473	\$13,060	\$13,002	\$12,298	\$14,012	\$16,758	\$16,280	\$16,543	\$14,133	\$17,743	\$18,723	\$20,083	\$19,741	\$21,445	\$19,968
Health Care and Social Assistance		\$17,092	\$19,500	\$18,455	\$17,790	\$16,655	\$19,791	\$22,552	\$21,938	\$21,489	\$21,441	\$24,125	\$23,483	\$22,803	\$25,833	\$24,090
Leisure and Hospitality		\$7,606	\$8,130	\$6,937	\$6,821	\$8,389	\$8,733	\$8,757	\$8,532	\$8,760	\$8,710	\$9,652	\$9,521	\$9,580	\$12,066	\$10,772
Other Services		\$10,041	\$13,568	\$12,092	\$13,801	\$12,054	\$12,989	\$16,975	\$14,024	\$17,366	\$14,848	\$17,084	\$15,557	\$16,007	\$20,849	\$15,730
Public Administration		\$19,734	\$20,442	\$18,437	\$19,517	\$18,973	\$23,104	\$24,030	\$22,831	\$23,690	\$24,005	\$24,976	\$26,175	\$24,523	\$26,636	\$26,902

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

WIA/WIOA TITLE I YOUTH PROGRAM OUTCOMES

Analyses show small fluctuations in the numbers of WIA Youth program participants across the 2010-2011 through 2013-2014 program years, followed by a noticeable decline in the 2014-2015 program year (*Figure 9*). Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

FIGURE 9.
WIA/WIOA Title I Youth Program Participants and Exiters by Program Year



WIOA was implemented in July 2015, therefore post-exit wage and employment statistics for the first WIOA exit cohort will be included in future reports. Employment and wage outcomes were derived for each WIA Title I Youth program exit cohort, and included post-exit employment rates (*Figure 10*) and wages (*Figure 11*) for up to five years after exit (*Table 3*).

One year post-participation employment rates reflect a steady increase across the five program years. This indicates that the percentage of exiters who were employed one year after exiting the program increased for each subsequent cohort. Rates across the five program years rose from 63% for the 2010-2011 program year exiters to 76% for the 2014-2015 program year exiters (*Figure 10, Table 3*). At the same time, one-year post-exit enrollment in NC public higher education declined across cohorts (*Table 3*).

One-year post-exit median wages did not show a clear trend across cohorts (*Figure 11*). It is important to note that WIA Title I Youth participants range in age from 14 to 21 and are more likely to be in school and less likely to be working full time.

Longer term post-exit employment and wage measures for the WIA Title I Youth program indicate that both employment rates and wages rose over time within each cohort. For example, for the 2010-2011 cohort exiters employment rates increased from 63% one year after exit to 71% five years after. At the same time, median wages for this cohort nearly doubled over the same period – from \$5,450 to \$10,979 one year and five years after the exit, respectively.

FIGURE 10.
Percentage of WIA Title I Youth Program Exiters Employed
in North Carolina After Exit, by Year of Exit

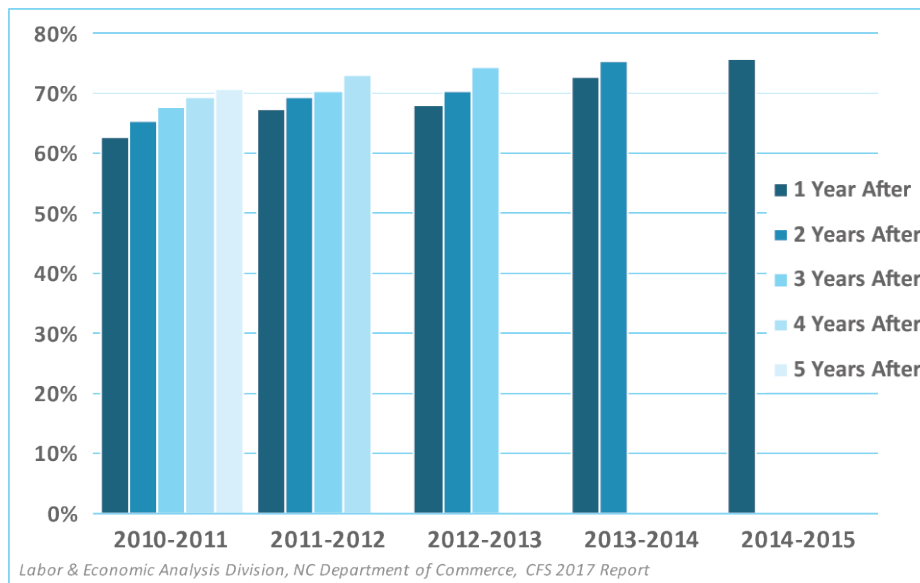
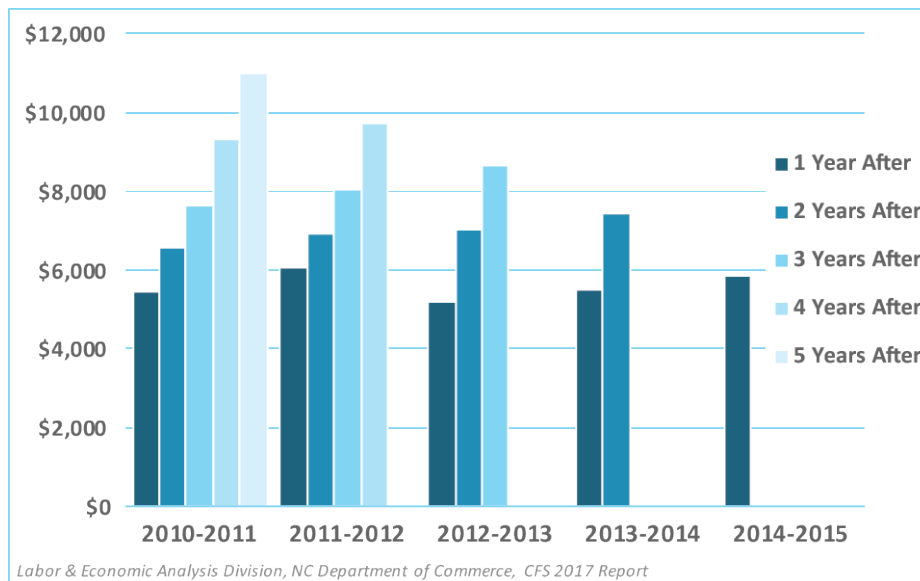
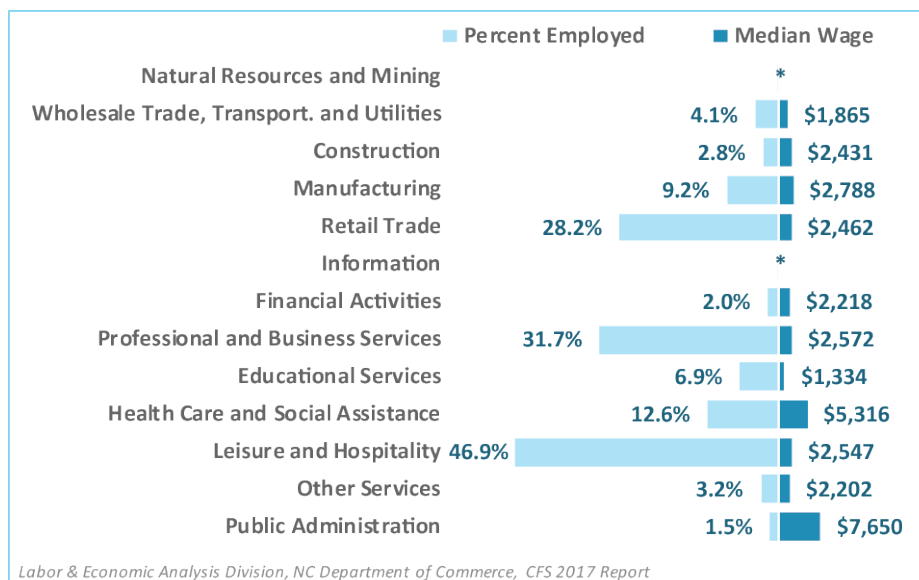


FIGURE 11.
Median Wage of WIA Title I Youth Program Exiters in North Carolina,
by Year of Exit



As shown in Figure 12 and Table 3, one-year employment outcomes by industry for the 2014-2015 cohort exiters indicate 47% of the Youth program exiters found employment in the Leisure and Hospitality industry, earning a median wage of \$2,547. Other industries employing this cohort one year after exiting the program include Professional and Business Services (32%), Retail Trade (28%), Health Care and Social Assistance (13%), and Manufacturing (9%).

FIGURE 12.
WIA/WIOA Title I Youth Program Participants and Exiters,
Showing Outcomes One Through Five Years After Exit, Overall and By Industry



Overall, the results show that there have been increasing short-term employment rates and some short-term fluctuation in median wages for the WIA Youth program exiters. This is indicated by the one-year post-employment and wage trends. When exiting cohorts are followed over time, the employment rate tends to be fairly stable. In addition, while the median wages of WIA Youth exiters are low, they continue to rise over time. It is important to keep in mind that the WIA/WIOA Youth program serves individuals aged 14 to 21 and are more likely to be in school and less likely to be working full time.

TABLE 3.

WIA/WIOA Title I Youth Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Department of Commerce, Division of Workforce Solutions										Common Follow-up System: Evaluative Measures, 2017 Report						
Workforce Investment Act - Youth Program										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce						
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		5,327	5,765	5,667	5,664	4,746	5,327	5,765	5,667	5,664	5,327	5,765	5,667	5,327	5,765	5,327
Exiters		2,196	2,337	2,352	3,324	1,821	2,196	2,337	2,352	3,324	2,196	2,337	2,352	2,196	2,337	2,196
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N	1,376	1,575	1,599	2,411	1,376	1,433	1,619	1,650	2,504	1,482	1,646	1,744	1,521	1,708	1,549
	%	63%	67%	68%	73%	76%	65%	69%	70%	75%	67%	70%	74%	69%	73%	71%
Exiters' Wages in North Carolina	Mean	\$7,514	\$7,864	\$7,468	\$7,538	\$7,986	\$8,813	\$9,199	\$9,297	\$9,705	\$9,857	\$10,662	\$10,968	\$11,470	\$12,433	\$13,127
	Median	\$5,450	\$6,057	\$5,191	\$5,486	\$5,844	\$6,545	\$6,937	\$7,001	\$7,452	\$7,641	\$8,048	\$8,640	\$9,308	\$9,740	\$10,979
Exiters Enrolled in NC Public Higher Education	N	921	939	880	1,264	603	735	685	669	891	639	569	523	510	444	413
	%	42%	40%	37%	38%	33%	33%	29%	28%	27%	29%	24%	22%	23%	19%	19%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	1,318	1,311	1,666	2,053	1,124	1,124	1,150	1,244	1,769	1,027	1,018	1,405	911	1,352	1,058
	%	60%	56%	71%	62%	62%	51%	49%	53%	53%	47%	44%	60%	41%	58%	48%
Exiters Enrolled or Employed in NC	N	1,822	1,956	2,113	2,922	1,624	1,756	1,905	1,964	2,867	1,731	1,847	2,036	1,689	1,987	1,780
	%	83%	84%	90%	88%	89%	80%	82%	84%	86%	79%	79%	87%	77%	85%	81%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	0.8%	1.0%	*	0.7%	0.7%	*	0.8%	*	*	*	*	0.8%	*
Wholesale Trade, Transport, and Utilities		3.4%	3.9%	4.1%	3.2%	4.1%	4.3%	3.5%	4.9%	3.8%	4.5%	5.1%	5.3%	4.9%	6.1%	6.1%
Construction		2.1%	2.2%	2.5%	2.6%	2.8%	2.3%	2.5%	3.6%	3.4%	2.1%	2.9%	4.1%	2.7%	3.0%	3.7%
Manufacturing		8.4%	7.3%	9.3%	9.7%	9.2%	9.1%	9.7%	11.0%	11.7%	10.0%	11.2%	12.9%	10.9%	12.9%	13.0%
Retail Trade		30.9%	29.0%	26.8%	28.9%	28.2%	29.0%	27.7%	28.1%	28.6%	28.3%	26.9%	27.6%	25.8%	24.4%	23.8%
Information		1.1%	0.9%	*	0.5%	*	0.8%	0.7%	*	0.8%	1.3%	1.2%	0.7%	1.2%	1.0%	1.4%
Financial Activities		2.0%	1.6%	1.4%	1.8%	2.0%	2.6%	2.3%	2.4%	2.4%	3.4%	3.6%	1.9%	3.9%	2.8%	3.6%
Professional and Business Services		27.9%	29.5%	32.2%	31.9%	31.7%	31.5%	32.6%	35.0%	35.9%	33.6%	36.1%	37.2%	35.0%	36.8%	37.1%
Educational Services		3.4%	2.3%	3.2%	6.1%	6.9%	2.9%	1.9%	2.2%	2.9%	3.0%	1.9%	2.5%	3.2%	2.7%	2.9%
Health Care and Social Assistance		18.5%	15.7%	14.5%	14.1%	12.6%	17.6%	15.6%	14.3%	14.8%	16.8%	15.7%	15.1%	18.3%	18.0%	19.4%
Leisure and Hospitality		37.6%	39.5%	40.4%	41.5%	46.9%	34.8%	37.9%	40.4%	40.0%	33.7%	37.3%	38.2%	32.9%	34.1%	32.4%
Other Services		2.3%	2.6%	2.8%	2.2%	3.2%	2.4%	2.2%	3.1%	2.6%	2.3%	2.5%	3.0%	2.7%	2.9%	3.0%
Public Administration		1.0%	1.7%	2.2%	2.0%	1.5%	1.0%	2.0%	1.9%	2.3%	1.1%	2.2%	2.4%	1.6%	2.4%	2.3%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	\$589	\$748	*	\$1,380	\$1,578	*	\$788	*	*	*	*	\$1,548	*
Wholesale Trade, Transport, and Utilities		\$2,370	\$2,335	\$2,258	\$2,216	\$1,865	\$2,885	\$5,910	\$2,108	\$2,578	\$2,599	\$4,011	\$3,248	\$4,513	\$2,837	\$5,220
Construction		\$2,679	\$3,600	\$4,123	\$3,402	\$2,431	\$3,157	\$3,635	\$7,030	\$3,782	\$3,445	\$4,028	\$5,973	\$5,100	\$6,439	\$10,047
Manufacturing		\$4,771	\$4,935	\$4,411	\$3,126	\$2,788	\$5,887	\$4,159	\$5,416	\$5,341	\$4,407	\$6,505	\$6,000	\$7,912	\$7,008	\$8,975
Retail Trade		\$3,108	\$3,054	\$2,834	\$2,904	\$2,462	\$3,708	\$3,495	\$3,285	\$3,019	\$3,903	\$3,711	\$3,744	\$4,266	\$4,329	\$3,773
Information		\$1,485	\$5,512	*	\$5,539	*	\$2,404	\$5,043	*	\$2,609	\$2,846	\$4,380	\$1,964	\$12,103	\$3,581	\$11,471
Financial Activities		\$3,116	\$5,405	\$1,676	\$3,206	\$2,218	\$7,054	\$5,275	\$3,139	\$2,240	\$4,827	\$2,415	\$5,959	\$3,980	\$5,252	\$7,457
Professional and Business Services		\$1,524	\$2,174	\$1,866	\$1,937	\$2,572	\$2,169	\$2,478	\$2,635	\$2,066	\$2,570	\$2,610	\$2,598	\$2,956	\$3,013	\$2,826
Educational Services		\$1,126	\$3,209	\$1,380	\$1,242	\$1,334	\$3,237	\$3,536	\$2,171	\$3,537	\$3,836	\$7,646	\$2,609	\$7,942	\$5,119	\$6,203
Health Care and Social Assistance		\$6,123	\$5,604	\$6,257	\$5,578	\$5,316	\$7,761	\$7,158	\$7,976	\$7,103	\$8,205	\$7,931	\$7,410	\$8,810	\$8,723	\$10,424
Leisure and Hospitality		\$2,599	\$3,083	\$2,360	\$2,459	\$2,547	\$2,866	\$3,142	\$2,511	\$2,843	\$2,983	\$2,946	\$3,176	\$3,187	\$3,321	\$3,332
Other Services		\$1,741	\$1,747	\$2,128	\$2,272	\$2,202	\$2,200	\$1,795	\$3,092	\$2,197	\$3,345	\$3,452	\$3,888	\$6,306	\$2,870	\$2,601
Public Administration		\$4,942	\$2,434	\$8,078	\$6,356	\$7,650	\$10,035	\$4,323	\$14,114	\$8,421	\$12,761	\$8,791	\$14,579	\$9,286	\$9,681	\$11,796
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	\$1,174	\$2,327	*	\$2,524	\$2,913	*	\$4,923	*	*	*	*	\$4,184	*
Wholesale Trade, Transport, and Utilities		\$6,384	\$6,232	\$4,957	\$4,552	\$4,717	\$7,260	\$10,309	\$5,718	\$6,497	\$9,923	\$7,665	\$6,652	\$11,821	\$8,675	\$11,653
Construction		\$10,657	\$6,134	\$7,429	\$6,390	\$6,430	\$8,512	\$7,122	\$10,834	\$7,492	\$10,305	\$7,024	\$10,787	\$10,359	\$10,409	\$12,541
Manufacturing		\$7,525	\$9,184	\$8,003	\$6,206	\$6,989	\$9,796	\$8,182	\$9,321	\$9,404	\$8,667	\$10,959	\$10,537	\$11,843	\$12,268	\$13,014
Retail Trade		\$4,974	\$5,168	\$4,600	\$4,890	\$5,058	\$5,877	\$5,975	\$5,594	\$5,539	\$6,208	\$6,525	\$6,144	\$6,480	\$7,890	\$6,565
Information		\$5,040	\$16,983	*	\$8,775	*	\$5,506	\$10,387	*	\$8,906	\$5,387	\$7,899	\$5,392	\$16,532	\$9,503	\$15,000
Financial Activities		\$5,459	\$9,193	\$7,599	\$5,584	\$6,625	\$10,046	\$9,647	\$7,190	\$6,749	\$9,065	\$6,835	\$10,860	\$8,147	\$10,574	\$12,097
Professional and Business Services		\$3,666	\$4,133	\$3,951	\$4,589	\$4,852	\$4,290	\$4,945	\$4,859	\$5,056	\$4,804	\$5,359	\$5,223	\$5,622	\$5,700	\$5,865
Educational Services		\$3,998	\$4,752	\$3,513	\$3,252	\$2,656	\$7,332	\$5,230	\$4,365	\$7,008	\$8,737	\$8,990	\$6,367	\$9,898	\$9,387	\$9,720
Health Care and Social Assistance		\$8,564	\$8,798	\$8,421	\$7,978	\$8,353	\$9,632	\$10,254	\$9,943	\$9,690	\$10,572	\$10,780	\$10,879	\$10,995	\$11,157	\$12,668
Leisure and Hospitality		\$4,060	\$4,499	\$4,031	\$4,001	\$3,972	\$4,505	\$4,595	\$4,388	\$4,600	\$4,930	\$4,901	\$5,169	\$5,224	\$5,552	\$5,489
Other Services		\$5,199	\$3,991	\$4,545	\$3,827	\$4,119	\$4,744	\$5,604	\$6,458	\$3,956	\$5,959	\$6,618	\$7,121	\$8,643	\$6,764	\$7,066
Public Administration		\$8,698	\$7,944	\$11,700	\$11,033	\$12,747	\$12,515	\$9,828	\$15,293	\$13,870	\$15,217	\$14,090	\$15,996	\$13,117	\$16,097	\$15,193

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

WAGNER-PEYSER PROGRAM OVERVIEW

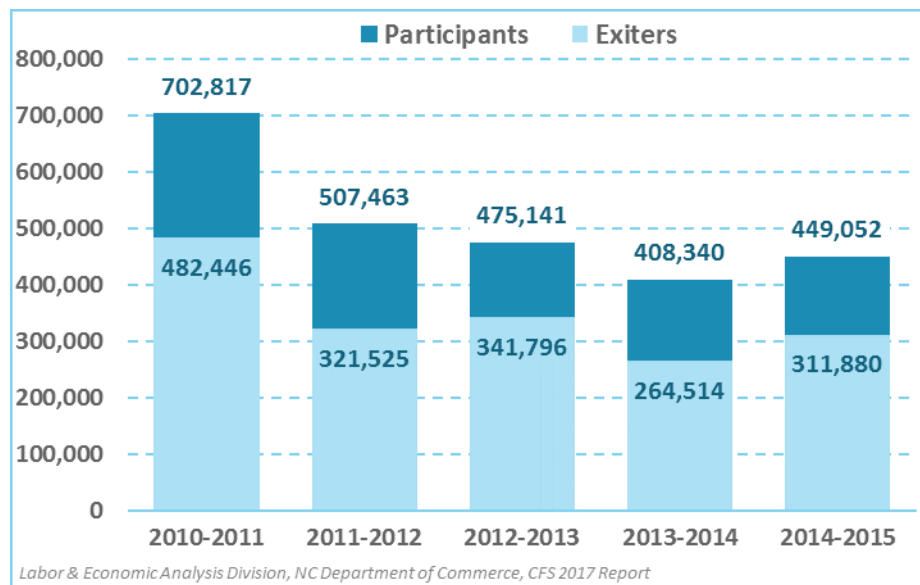
The Wagner-Peyser Act of 1933 established a nationwide system of public employment offices known as the Employment Service. In North Carolina, the Division of Workforce Solutions provides oversight and operational responsibility for the state's Wagner-Peyser Act program. This program provides labor exchange services such as job search assistance, job referral, and placement assistance for job seekers; re-employment services for unemployment insurance claimants; and job recruitment assistance for employers. Specialized services are offered to veterans, individuals with disabilities, migrant and seasonal farmworkers, ex-offenders, youth, minorities and older workers. A range of other services are also available to meet the needs of both job seekers and employers, including skill, ability, and aptitude assessments; career guidance; assistance with job restructuring; and helping employers deal with layoffs.⁷

In 2015, the Workforce Innovation and Opportunity Act (WIOA) took effect, with the Wagner-Peyser Program designated as a core program participant providing services at American Job Centers. The WIOA integrated service delivery model emphasizes co-enrollment of customers in both Wagner-Peyser and WIA/WIOA Adult program when eligibility criteria permit.

WAGNER-PEYSER PROGRAM OUTCOMES

As shown in Figure 13, the number of program participants in the Wagner-Peyser program decreased between the 2010-2011 and 2013-2014 program years, then increased in 2014-2015. Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

FIGURE 13.
Wagner-Peyser Program Participants and Exiters by Program Year

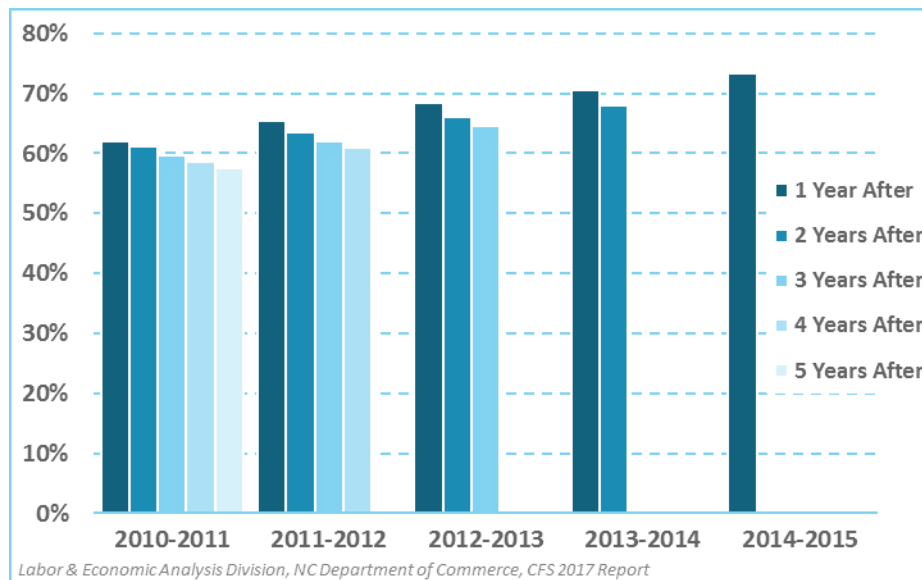


Employment and wage outcomes were derived for each cohort of Wagner-Peyser program exiters. Analyses included the post-exit employment rates (*Figure 14*) and wages (*Figure 15*) for up to five years after exit (*also see Table 4*).

One-year post-exit employment rates increased across cohorts, ranging from a low of 62% for the 2010-2011 program year exiters to a high of 73% for the 2014-2015 program year exiters (*Figure 14, Table 4*). The percentage of exiters subsequently enrolling in NC public higher education one year after exiting the program remained steady until the 2014-2015 cohort, in which enrollment declined to 12% (*Table 4*). Longer term post-exit employment measures indicate that each cohort had decreasing percentages of exiters employed in North Carolina over time.

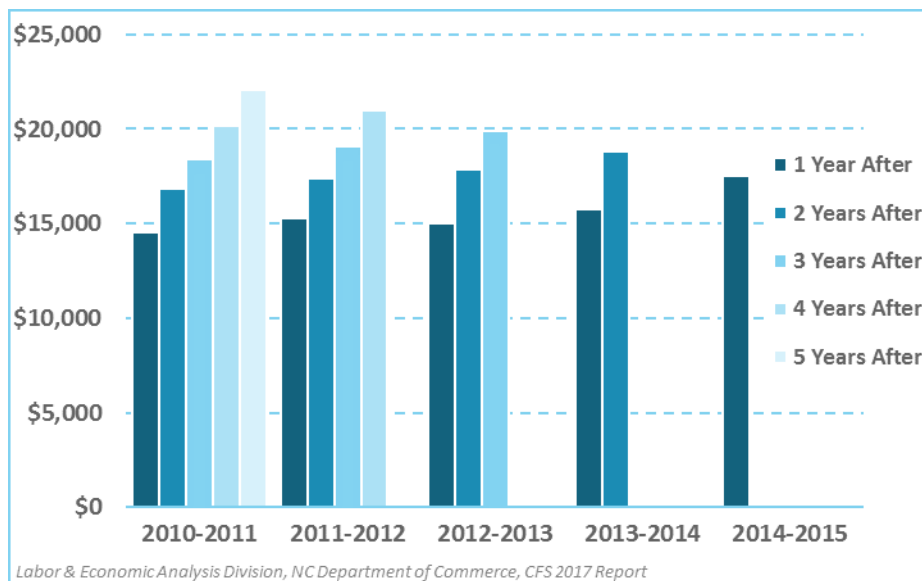
⁷ U.S. Department of Labor Employment and Training Administration, doleta.gov/wioa

FIGURE 14.
Percentage of Wagner-Peyser Exiters Employed in North Carolina After Exit, by Year of Exit



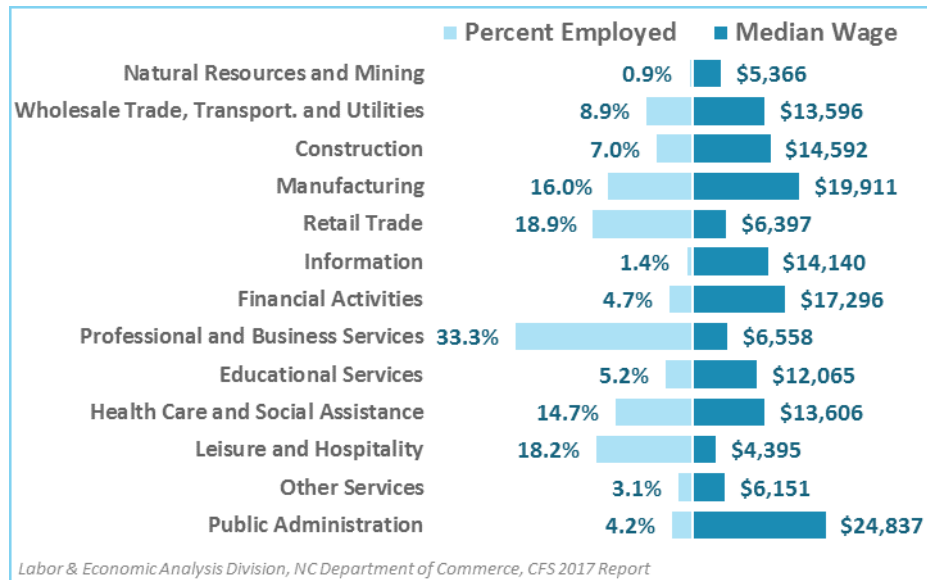
One-year post-exit median wages show some fluctuation, but increased overall, ranging from \$14,539 for the 2010-2011 program year exiters to a high of \$17,502 for the 2014-2015 exiters (*Figure 15, Table 4*). Within all cohorts, median annual wages increased over time. The 2010-2011 cohort experienced wage growth from \$14,539 one year after exit to \$18,383 three years after exit and \$22,060 five years after. The median wage of the 2011-2012 cohort rose from \$15,284 one year post exit to \$19,073 three years post exit, while the 2012-2013 cohort saw a change in median annual wage from \$15,039 to \$19,907 at post-exit years one and three, respectively.

FIGURE 15.
Median Wage of Wagner-Peyser Program Exiters in North Carolina, by Year of Exit



As shown in Figure 16, one-year employment outcomes by industry for the 2014-2015 cohort exiters indicate that 33% of Wagner-Peyser program exiters were employed in the Professional and Business Services industry, earning a median annual wage of \$6,558. Other industries employing this cohort one year after exiting the program include Retail Trade (19%), Leisure and Hospitality (18%), Manufacturing (16%), Health Care and Social Assistance (15%), Wholesale Trade, Transportation, and Utilities (9%), as well as Construction (7%). Of these industries, Manufacturing accounted for the highest median annual wage (\$19,911).

FIGURE 16.
2014-2015 Wagner-Peyser Exiters One Year After Exit:
Employment and Median Wage by Industry



Overall, analyses show increasing one-year post-exit employment rates and median wages for Wagner-Peyser exiters. When cohorts are followed over time, employment rates tend to decline, while median wages continue to rise. The median wage of Wagner-Peyser participants one year after exiting the 2010-2011 program year was \$14,539 one year after exit and \$22,060 after five years. By contrast, the 2015 annual median wage in North Carolina for all wage earners covered by unemployment insurance was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.⁸

⁸ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 4.

Wagner-Peyser Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Department of Commerce, Division of Workforce Solutions										Common Follow-up System: Evaluative Measures, 2017 Report						
Wagner-Peyser Program										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce						
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		702,817	507,463	475,141	408,340	449,052	702,817	507,463	475,141	408,340	702,817	507,463	475,141	702,817	507,463	702,817
Exiters		482,446	321,525	341,796	264,514	311,880	482,446	321,525	341,796	264,514	482,446	321,525	341,796	482,446	321,525	482,446
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N %	299,500 62%	210,597 65%	234,015 68%	186,789 71%	228,792 73%	295,208 61%	204,021 63%	226,083 66%	179,934 68%	288,316 60%	199,532 62%	220,959 65%	282,420 59%	195,684 61%	277,188 57%
Exiters' Wages in North Carolina	Mean Median	\$18,430 \$14,539	\$18,457 \$15,284	\$18,402 \$15,039	\$19,353 \$15,756	\$21,118 \$17,502	\$20,923 \$16,818	\$20,691 \$17,354	\$21,363 \$17,892	\$22,449 \$18,810	\$22,529 \$18,383	\$22,548 \$19,073	\$23,444 \$19,907	\$24,468 \$20,186	\$24,539 \$20,980	\$26,425 \$22,060
Exiters Enrolled in NC Public Higher Education	N %	78,789 16%	53,736 17%	53,346 16%	41,341 16%	38,433 12%	68,182 14%	45,680 14%	43,999 13%	33,573 13%	59,043 12%	37,706 12%	36,146 11%	48,925 10%	31,001 10%	40,769 8%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	91,575 19%	62,823 20%	61,455 18%	49,873 19%	48,261 15%	134,194 28%	87,043 27%	92,451 27%	72,450 27%	111,948 23%	80,100 25%	82,137 24%	102,140 21%	70,060 22%	91,469 19%
Exiters Enrolled or Employed in NC	N %	329,419 68%	229,212 71%	250,601 73%	199,046 75%	239,291 77%	331,394 69%	225,357 70%	244,835 72%	193,783 73%	315,799 65%	216,315 67%	235,891 69%	303,658 63%	208,988 65%	294,633 61%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		1.0%	1.1%	1.1%	1.0%	0.9%	0.9%	1.1%	1.1%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%	0.9%
Wholesale Trade, Transport. and Utilities		8.0%	7.9%	8.1%	8.2%	8.9%	8.5%	8.2%	8.7%	8.9%	8.6%	8.5%	9.2%	8.9%	9.1%	9.4%
Construction		8.1%	7.0%	7.3%	6.4%	7.0%	7.8%	7.0%	7.6%	6.7%	7.7%	7.2%	7.7%	7.9%	7.4%	8.1%
Manufacturing		14.4%	15.0%	14.3%	15.4%	16.0%	15.3%	16.0%	15.9%	16.8%	15.8%	16.7%	16.9%	16.4%	17.5%	17.1%
Retail Trade		17.7%	17.6%	18.2%	19.2%	18.9%	16.8%	16.8%	17.3%	17.8%	16.5%	16.3%	16.5%	16.1%	15.7%	15.4%
Information		1.3%	1.2%	1.3%	1.4%	1.4%	1.3%	1.2%	1.5%	1.4%	1.3%	1.4%	1.4%	1.5%	1.3%	1.5%
Financial Activities		4.2%	4.2%	4.7%	4.7%	4.7%	4.5%	4.8%	5.1%	4.7%	5.1%	5.1%	4.9%	5.4%	4.8%	5.0%
Professional and Business Services		30.7%	30.8%	33.1%	33.5%	33.3%	27.3%	27.7%	29.6%	29.1%	27.0%	27.5%	28.2%	26.8%	26.3%	25.7%
Educational Services		5.2%	5.9%	5.5%	5.8%	5.2%	5.4%	6.0%	5.6%	5.8%	5.5%	6.2%	5.7%	5.6%	6.3%	5.7%
Health Care and Social Assistance		14.6%	14.6%	14.1%	14.7%	14.7%	14.9%	15.1%	14.5%	15.3%	15.1%	15.2%	15.0%	15.1%	15.5%	15.3%
Leisure and Hospitality		16.5%	16.8%	17.2%	18.1%	18.2%	15.6%	15.8%	15.9%	17.1%	15.2%	15.2%	15.5%	14.6%	14.8%	14.4%
Other Services		3.1%	3.1%	3.1%	3.0%	3.1%	3.2%	3.1%	3.1%	3.1%	3.3%	3.1%	3.2%	3.2%	3.1%	3.2%
Public Administration		3.8%	4.4%	4.3%	4.5%	4.2%	3.9%	4.5%	4.5%	4.9%	4.0%	4.8%	4.7%	4.2%	4.9%	4.4%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$5,860	\$6,609	\$5,224	\$5,280	\$5,366	\$7,750	\$7,390	\$6,976	\$6,234	\$7,748	\$7,687	\$7,820	\$8,746	\$8,928	\$9,907
Wholesale Trade, Transport. and Utilities		\$14,143	\$14,134	\$13,284	\$13,840	\$13,596	\$17,185	\$17,446	\$16,925	\$16,182	\$19,117	\$18,995	\$18,063	\$21,001	\$19,298	\$21,421
Construction		\$14,075	\$13,722	\$13,320	\$12,940	\$14,592	\$15,664	\$14,874	\$15,766	\$15,903	\$17,213	\$16,624	\$17,955	\$19,426	\$18,655	\$21,832
Manufacturing		\$19,017	\$18,999	\$17,883	\$19,310	\$19,911	\$22,046	\$21,657	\$20,830	\$22,522	\$23,461	\$23,160	\$22,564	\$24,973	\$24,784	\$26,393
Retail Trade		\$6,444	\$6,792	\$6,272	\$5,866	\$6,397	\$7,984	\$7,834	\$7,523	\$7,100	\$8,356	\$8,241	\$8,127	\$8,919	\$8,802	\$9,397
Information		\$12,601	\$12,464	\$13,012	\$14,026	\$14,140	\$15,733	\$16,554	\$16,246	\$18,320	\$19,393	\$19,228	\$18,899	\$19,887	\$21,895	\$23,470
Financial Activities		\$15,261	\$15,245	\$13,210	\$12,915	\$17,296	\$18,933	\$17,096	\$16,176	\$20,390	\$19,347	\$17,247	\$21,501	\$19,256	\$22,866	\$24,925
Professional and Business Services		\$6,616	\$6,622	\$6,648	\$6,224	\$6,558	\$7,201	\$6,888	\$7,217	\$6,584	\$7,384	\$7,171	\$7,224	\$7,829	\$7,315	\$7,983
Educational Services		\$9,438	\$11,820	\$10,720	\$10,678	\$12,065	\$12,742	\$14,832	\$13,830	\$14,703	\$14,748	\$16,267	\$15,637	\$16,403	\$18,121	\$17,984
Health Care and Social Assistance		\$11,735	\$12,507	\$11,977	\$12,496	\$13,606	\$14,169	\$14,310	\$14,330	\$15,020	\$15,302	\$15,266	\$15,454	\$16,258	\$16,510	\$17,494
Leisure and Hospitality		\$4,620	\$4,601	\$4,513	\$3,963	\$4,395	\$5,448	\$5,272	\$5,171	\$4,439	\$5,619	\$5,409	\$5,326	\$5,905	\$5,492	\$6,105
Other Services		\$6,087	\$6,482	\$6,861	\$5,819	\$6,151	\$7,410	\$7,695	\$7,836	\$6,892	\$8,443	\$7,861	\$8,261	\$9,105	\$8,491	\$9,703
Public Administration		\$20,930	\$21,962	\$22,704	\$23,667	\$24,837	\$25,031	\$26,568	\$26,659	\$28,014	\$27,447	\$27,858	\$28,832	\$28,501	\$29,829	\$30,194
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$10,986	\$11,331	\$10,401	\$10,700	\$11,379	\$13,298	\$12,435	\$12,585	\$12,501	\$13,956	\$13,673	\$13,811	\$15,180	\$14,862	\$16,495
Wholesale Trade, Transport. and Utilities		\$18,819	\$18,276	\$18,126	\$18,423	\$18,999	\$21,449	\$21,139	\$21,441	\$21,067	\$23,246	\$22,998	\$22,828	\$25,332	\$23,875	\$26,444
Construction		\$17,952	\$17,646	\$17,458	\$17,579	\$19,139	\$19,787	\$19,242	\$20,054	\$20,637	\$21,396	\$21,043	\$22,284	\$23,465	\$23,233	\$25,828
Manufacturing		\$21,953	\$21,064	\$20,139	\$21,758	\$22,065	\$24,612	\$23,744	\$23,006	\$24,425	\$26,404	\$25,535	\$24,715	\$28,263	\$27,119	\$29,519
Retail Trade		\$9,722	\$9,879	\$9,664	\$9,390	\$10,477	\$11,659	\$11,408	\$11,367	\$11,287	\$12,535	\$12,283	\$12,591	\$13,392	\$13,262	\$14,405
Information		\$18,969	\$18,508	\$19,682	\$21,001	\$22,069	\$23,436	\$22,920	\$23,417	\$25,531	\$26,600	\$25,750	\$25,302	\$27,593	\$28,292	\$29,982
Financial Activities		\$19,530	\$18,843	\$17,620	\$18,403	\$22,090	\$23,209	\$20,855	\$20,894	\$24,574	\$23,971	\$21,856	\$25,267	\$24,743	\$26,498	\$30,074
Professional and Business Services		\$12,330	\$11,839	\$11,669	\$11,700	\$12,864	\$13,910	\$12,850	\$13,349	\$13,198	\$14,464	\$13,605	\$13,920	\$15,469	\$14,321	\$16,213
Educational Services		\$14,002	\$15,253	\$14,847	\$15,693	\$16,763	\$16,739	\$17,317	\$17,492	\$18,700	\$18,048	\$18,816	\$19,207	\$19,462	\$20,513	\$20,967
Health Care and Social Assistance		\$14,771	\$15,225	\$15,015	\$15,756	\$16,987	\$17,065	\$17,052	\$17,101	\$18,195	\$18,246	\$18,036	\$18,475	\$19,324	\$19,481	\$20,676
Leisure and Hospitality		\$7,290	\$7,230	\$7,081	\$6,713	\$7,578	\$8,533	\$8,134	\$8,075	\$7,726	\$8,900	\$8,606	\$8,724	\$9,380	\$9,138	\$9,988
Other Services		\$10,690	\$10,988	\$11,493	\$10,809	\$11,490	\$12,458	\$12,744	\$12,951	\$12,763	\$13,739	\$13,228	\$13,844	\$14,480	\$14,208	\$15,395
Public Administration		\$20,394	\$21,014	\$21,646	\$22,712	\$23,637	\$22,912	\$24,200	\$24,401	\$26,045	\$25,044	\$25,438	\$26,435	\$26,201	\$27,565	\$28,039

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

SUMMARY AND RECOMMENDATIONS

DWS offers a broad spectrum of services to several customer groups, and those described in this section provide different types of services to different customers. Although there is some overlap between programs, and some common trends indicating their interrelationship, caution should be exercised when comparing the outcome measures of these programs.

The number of participants served under the WIA/WIOA Adult program increased nearly eight-fold between the 2012-2013 and 2013-2014 program years, and more than doubled between 2013-2014 and 2014-2015. Likewise, the number of participants served under the WIA/WIOA Dislocated Worker program more than tripled in the most recent year, while the Wagner-Peyser program saw an increase after several years of declining participation. These increases likely reflect recent efforts to integrate service delivery and leverage resources across the multiple programs that a given customer may be eligible for.

These sharp increases in program participation occurred alongside shifts in the outcomes of program exiters, particularly for the WIA Adult program. This program saw a sudden decline in the share of exiters subsequently enrolling in public higher education in their post-2013 cohorts. The shift in outcomes was also apparent in these exiters' industry of employment; while earlier cohorts were concentrated in the Health Care and Social Assistance sector, post-2013 cohorts were more likely to be employed in Manufacturing and lower-paying Professional and Business Services jobs (a sector which includes temporary help agencies).

More research is needed to determine whether these shifts in outcomes reflect changes in the nature of services provided or merely reflect the changing composition of program participants under service integration. Further study of service integration is recommended, including changes in the types of services provided and customers served and the relative performance of different types of services (or combinations thereof). The shift in industries employing WIA Adult program exiters away from the high-demand Health Care and Social Assistance sector also suggests that an examination of the alignment between workforce programs and the needs of the labor market may be merited.

Both the WIA Youth and Wagner-Peyser programs exhibited outcome trends that were consistent with a tightening labor market. These programs saw nearly continuous increases in wage earnings, increasing rates of employment in the state, and declining rates of enrollment in public higher education between the 2010-2011 and 2014-2015 cohorts, which may be due in part to the gradual expansion of employment opportunities for young, unemployed, and underemployed workers. However, the outcomes of WIA Adult and WIA Dislocated Worker program exiters demonstrated no such continuous change during the same time period, with the exception of the sharp post-2013 shifts mentioned above. WIA Adult and WIA Dislocated Worker programs focus on participants with barriers to employment that make it difficult for these individuals to benefit from the general improvement in the labor market.

Further study of the services received by and the outcomes of WIA Adult and WIA Dislocated Worker participants, as well as other DWS customer groups that are underemployed or unemployed, may be beneficial. As the labor market continues to tighten and employers struggle to fill positions, providing workforce services that bring workers off the sidelines will become an even more urgent priority for North Carolina's workforce system.

THE DEPARTMENT OF HEALTH AND HUMAN SERVICES

DIVISION OF SOCIAL SERVICES

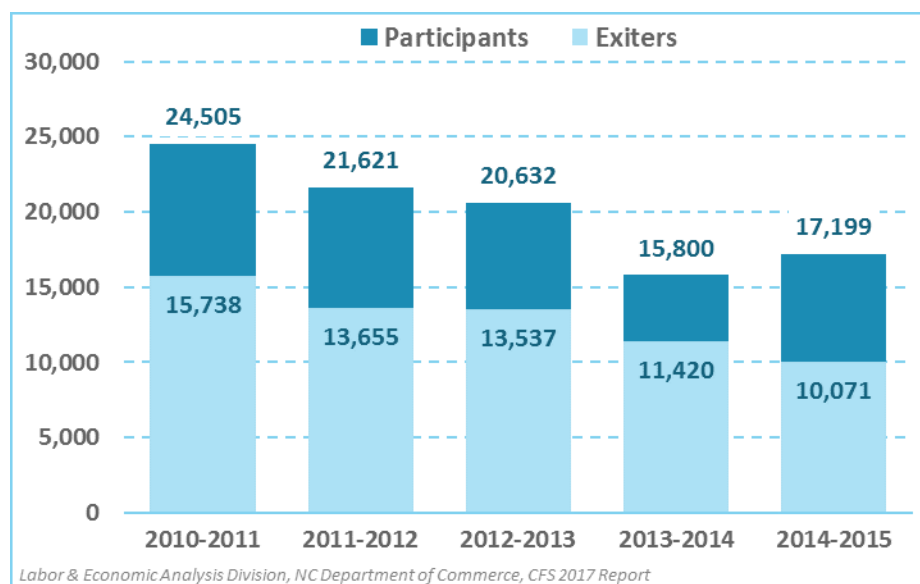
WORK FIRST PROGRAM OVERVIEW

North Carolina's Temporary Assistance for Needy Families (TANF) program is called Work First. Work First provides time-limited cash assistance (up to 24 months) to needy families with children who meet eligibility requirements. Work First is based on the foundational premise that parents have a responsibility to support themselves and their children. Through Work First, parents can receive short-term training and other related services that can help them become employed and self-sufficient.⁹ Work First emphasizes three strategies: diversion, shortening the time of assistance, and retention. Diversion strategies focus on keeping families off cash assistance by helping them with unexpected emergencies and setbacks. Strategies to shorten assistance include making work mandatory and limiting the time a family can receive assistance. Retention strategies to help keep families off assistance encourage savings and provide employment-related services, transportation assistance, short-term skills training, and family enrichment services.¹⁰ With the implementation of WIOA, Work First became a required partner in the One-Stop Career Centers.

WORK FIRST PROGRAM OUTCOMES

Analyses revealed a decrease in the number of Work First program participants and exiters between the 2010-2011 and 2013-2014 program years, followed by a slight increase in the 2014-2015 program year (*Figure 17*). Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

FIGURE 17.
Work First Program Participants and Exiters by Program Year



⁹ North Carolina Division of Social Services, ncdhhs.gov/dss/workfirst/index.htm

¹⁰ *Ibid.*

Figures 18 and 19 show employment and wage outcomes for Work First program participants by year of exit (*also see Table 5*). One-year post-exit employment rates increased progressively across the five program years, ranging from 59% for the 2010-2011 program year exiters to 71% for the 2014-2015 program year exiters. One-year post-exit median wages also increased across the five program years from \$6,808 for the 2010-2011 program year exiters to \$8,168 for the 2014-2015 program year exiters.

FIGURE 18.
Percentage of Work First Program Exiters Employed in North Carolina After Exit, by Year of Exit

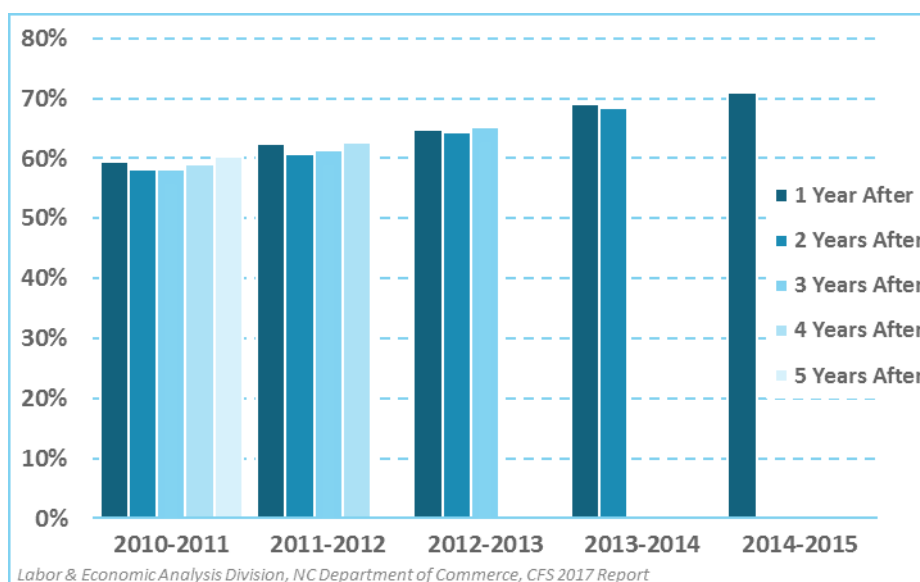
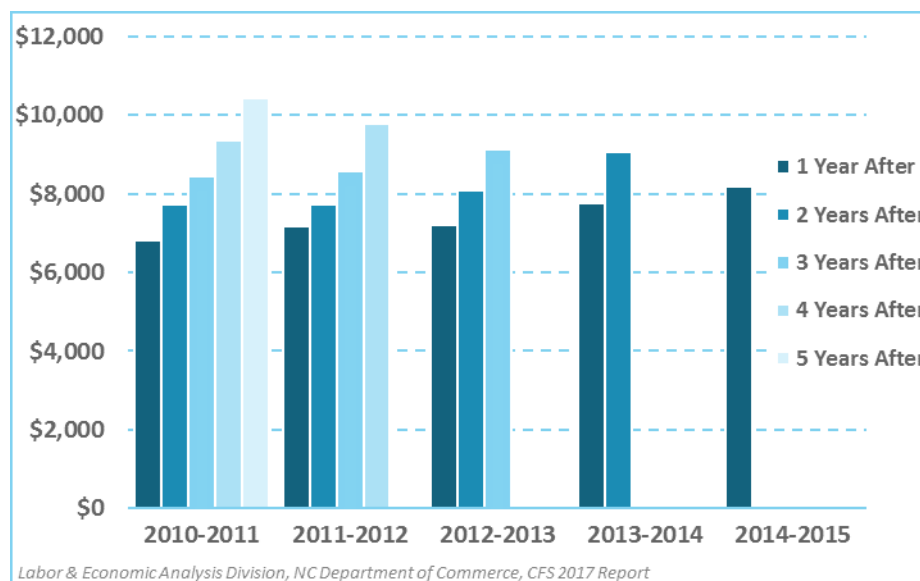


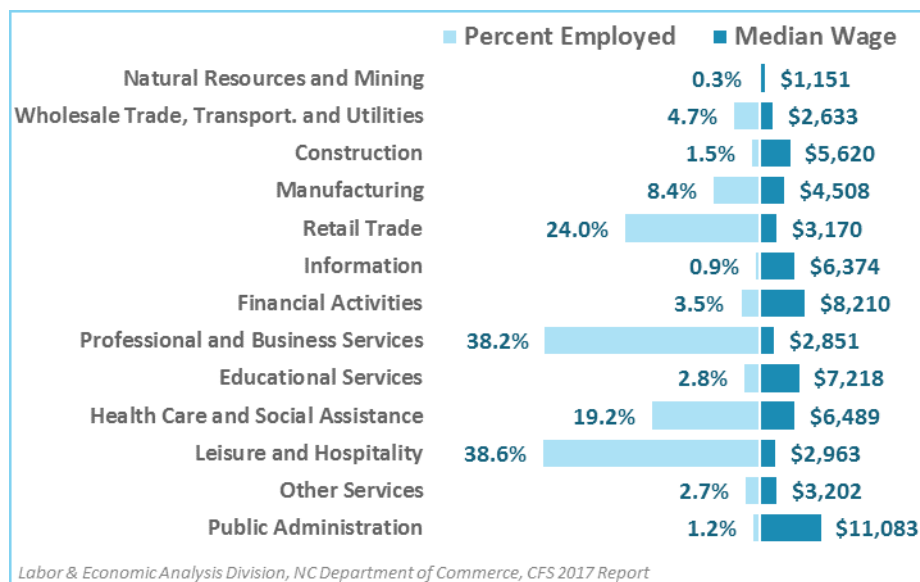
FIGURE 19.
Median Wage of Work First Program Exiters in North Carolina, by Year of Exit



Within cohorts, employment rates fluctuated slightly while median wages increased over time. The employment rates of the 2010-2011 cohort stayed within one percentage point of 59% from year one to year five after exit; the 2011-2012 cohort stayed within one percentage point of 62% from year one to year four; the 2012-2013 cohort stayed within one percentage point of 65% from year one to year three. The cohort of participants who exited the Work First program in 2010-2011 saw their median annual wages increase from \$6,808 one year after exit to \$8,428 at year three and \$10,414 at year five. The 2011-2012 exiting cohort had an increase in post-exit wages from \$7,166 at year one and \$8,589 at year three, while the 2012-2013 exiting cohort had median annual wages of \$7,196 one year after exit, which increased to \$9,130 at year three.

Work First program exiters experienced low wages across all industries. As shown in Figure 20 and Table 5, wage and employment outcomes by industry show that 39% of the 2014-2015 cohort exiters were employed in Leisure and Hospitality, followed by Professional and Business Services (38%), Retail Trade (24%), Health Care and Social Assistance (19%), and Manufacturing (8%). Of these industries, Health Care and Social Assistance paid the highest median annual wage (\$6,489).

FIGURE 20.
2014-2015 Work First Program Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



SUMMARY AND RECOMMENDATIONS

Overall, the results indicate that there was a decrease in the number of Work First participants over time, and an increase in short-term employment rates and median wages for program exiters across cohorts. Additionally, while employment rates showed little change over time within cohorts, median wages increased over time within each cohort.

A stated goal of the Work First program is to assist individuals in becoming economically self-sufficient. Results of the analyses for Work First program exiters show low employment and wage outcomes, with wages below established federal poverty guidelines. It is recommended that the Division of Social Services may need to focus efforts to assist Work First participants in attaining higher employment and wage outcomes. This may be achieved through improved coordination with other workforce development related programs that focus on enhancing employability skills, gaining occupational skills, and accessing additional educational programs that may lead to increased educational credentials.

TABLE 5.

Work First Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

Department of Health and Human Services							Common Follow-up System: Evaluative Measures, 2017 Report									
Work First - Employment and Training Program							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		24,505	21,621	20,632	15,800	17,199	24,505	21,621	20,632	15,800	24,505	21,621	20,632	24,505	21,621	24,505
Exiters		15,738	13,655	13,537	11,420	10,071	15,738	13,655	13,537	11,420	15,738	13,655	13,537	15,738	13,655	15,738
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N %	9,344 59%	8,525 62%	8,762 65%	7,888 69%	7,156 71%	9,159 58%	8,286 61%	8,713 64%	7,813 68%	9,154 58%	8,381 61%	8,832 65%	9,279 59%	8,559 63%	9,481 60%
Exiters' Wages in North Carolina	Mean Median	\$8,695 \$6,808	\$8,932 \$7,166	\$9,137 \$7,196	\$9,659 \$7,745	\$10,051 \$8,168	\$9,889 \$7,743	\$9,964 \$7,728	\$10,502 \$8,086	\$11,298 \$9,059	\$10,841 \$8,428	\$10,967 \$8,589	\$11,773 \$9,130	\$11,772 \$9,355	\$12,264 \$9,769	\$13,021 \$10,414
Exiters Enrolled in NC Public Higher Education	N %	4,106 26%	3,451 25%	3,132 23%	2,422 21%	1,708 17%	3,449 22%	2,895 21%	2,465 18%	1,829 16%	3,015 19%	2,312 17%	1,993 15%	2,567 16%	1,839 13%	2,061 13%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	6,866 44%	5,955 44%	5,525 41%	4,991 44%	3,897 39%	6,723 43%	5,557 41%	5,552 41%	4,575 40%	5,902 38%	5,191 38%	5,061 37%	5,448 35%	4,763 35%	5,007 32%
Exiters Enrolled or Employed in NC	N %	11,559 73%	10,215 75%	10,245 76%	8,996 79%	7,885 78%	11,240 71%	9,890 72%	9,975 74%	8,684 76%	10,832 69%	9,569 70%	9,820 73%	10,591 67%	9,486 69%	10,540 67%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.3%	0.4%	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.2%	0.4%	0.3%	0.2%	0.4%	0.2%
Wholesale Trade, Transport. and Utilities		3.3%	3.4%	3.1%	3.7%	4.7%	3.8%	3.9%	3.3%	4.6%	3.7%	3.7%	4.3%	4.0%	4.4%	5.0%
Construction		1.7%	1.5%	1.4%	1.3%	1.5%	1.7%	1.5%	1.5%	1.2%	1.7%	1.5%	1.7%	2.1%	1.5%	2.0%
Manufacturing		7.2%	7.8%	7.2%	8.1%	8.4%	7.9%	8.6%	8.0%	9.8%	8.0%	9.0%	8.5%	8.5%	10.7%	9.7%
Retail Trade		23.4%	22.3%	23.0%	23.8%	24.0%	21.0%	21.2%	22.6%	22.9%	20.9%	21.2%	22.1%	20.6%	20.9%	20.7%
Information		0.8%	0.7%	1.0%	0.8%	0.9%	0.9%	0.7%	1.2%	0.9%	1.0%	0.9%	1.2%	1.2%	1.0%	1.2%
Financial Activities		2.7%	2.8%	3.7%	4.2%	3.5%	3.4%	3.8%	4.4%	4.3%	4.1%	4.2%	4.0%	5.0%	3.6%	4.3%
Professional and Business Services		32.9%	34.3%	36.1%	39.3%	38.2%	31.5%	33.6%	37.0%	37.1%	33.5%	34.6%	36.2%	34.6%	35.0%	33.3%
Educational Services		3.3%	3.2%	3.0%	3.1%	2.8%	3.4%	3.4%	3.3%	3.3%	3.6%	3.8%	3.5%	3.9%	3.9%	4.3%
Health Care and Social Assistance		21.1%	20.8%	19.8%	20.1%	19.2%	22.1%	21.9%	20.9%	21.9%	22.7%	22.6%	22.2%	22.6%	23.0%	23.3%
Leisure and Hospitality		31.5%	33.4%	34.9%	34.2%	38.6%	31.2%	33.0%	33.3%	34.5%	30.6%	32.5%	33.5%	30.3%	32.5%	30.3%
Other Services		2.2%	2.6%	2.1%	2.7%	2.7%	2.7%	2.5%	2.7%	2.5%	2.4%	2.4%	2.8%	2.7%	2.7%	2.5%
Public Administration		1.4%	1.2%	1.3%	1.5%	1.2%	1.4%	1.4%	1.7%	1.7%	1.5%	1.5%	1.8%	1.8%	1.7%	1.9%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$1,588	\$2,208	\$1,206	\$1,212	\$1,151	\$1,876	\$1,565	\$3,233	\$1,511	\$4,079	\$953	\$2,762	\$1,510	\$1,386	\$4,005
Wholesale Trade, Transport. and Utilities		\$3,624	\$3,244	\$3,575	\$3,430	\$2,633	\$4,877	\$4,050	\$3,930	\$2,451	\$5,509	\$6,429	\$3,728	\$4,985	\$5,490	\$4,451
Construction		\$4,175	\$5,913	\$4,600	\$2,548	\$5,620	\$6,177	\$6,027	\$5,022	\$4,475	\$5,397	\$4,737	\$7,074	\$5,036	\$6,081	\$8,143
Manufacturing		\$6,180	\$4,587	\$4,545	\$4,776	\$4,508	\$6,525	\$5,382	\$6,338	\$5,913	\$7,061	\$6,423	\$6,465	\$9,567	\$6,798	\$8,257
Retail Trade		\$3,438	\$3,750	\$3,426	\$3,207	\$3,170	\$3,983	\$3,277	\$3,408	\$3,715	\$3,960	\$3,663	\$3,327	\$3,848	\$3,654	\$4,056
Information		\$6,636	\$6,693	\$4,710	\$8,725	\$6,374	\$7,897	\$13,868	\$10,262	\$9,757	\$8,516	\$12,895	\$10,026	\$11,949	\$9,424	\$13,197
Financial Activities		\$7,543	\$5,384	\$4,867	\$2,460	\$8,210	\$8,980	\$3,845	\$3,749	\$4,828	\$5,815	\$3,050	\$5,791	\$3,776	\$8,949	\$8,841
Professional and Business Services		\$2,515	\$2,712	\$2,840	\$3,228	\$2,851	\$2,674	\$2,761	\$2,932	\$2,755	\$2,951	\$2,985	\$3,032	\$2,959	\$2,999	\$3,244
Educational Services		\$5,554	\$7,136	\$7,388	\$6,341	\$7,218	\$6,308	\$7,143	\$9,108	\$7,997	\$8,199	\$7,112	\$9,474	\$9,463	\$10,318	\$10,258
Health Care and Social Assistance		\$6,380	\$6,472	\$6,860	\$6,498	\$6,489	\$6,986	\$7,570	\$7,799	\$7,408	\$8,007	\$8,089	\$8,222	\$8,437	\$9,285	\$8,957
Leisure and Hospitality		\$3,513	\$3,340	\$3,271	\$3,198	\$2,963	\$3,545	\$3,324	\$3,255	\$2,987	\$3,846	\$3,286	\$3,265	\$3,803	\$3,337	\$3,789
Other Services		\$2,344	\$3,040	\$3,613	\$3,053	\$3,202	\$3,384	\$3,111	\$3,001	\$5,183	\$5,368	\$3,397	\$2,564	\$3,472	\$2,879	\$5,393
Public Administration		\$12,632	\$11,013	\$10,682	\$12,335	\$11,083	\$21,322	\$14,568	\$15,620	\$18,125	\$21,731	\$14,586	\$22,108	\$20,758	\$17,985	\$22,185
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$3,827	\$4,921	\$3,767	\$3,872	\$6,232	\$4,306	\$4,339	\$5,053	\$7,445	\$9,665	\$3,381	\$5,185	\$9,098	\$5,475	\$8,156
Wholesale Trade, Transport. and Utilities		\$7,059	\$6,679	\$7,052	\$7,180	\$6,070	\$7,940	\$8,228	\$8,147	\$7,559	\$9,485	\$9,793	\$8,069	\$9,383	\$9,486	\$9,347
Construction		\$8,471	\$8,082	\$8,926	\$7,036	\$10,127	\$10,533	\$9,408	\$9,748	\$9,538	\$9,970	\$9,599	\$11,458	\$10,220	\$11,953	\$13,478
Manufacturing		\$8,691	\$8,453	\$7,907	\$8,547	\$8,269	\$10,237	\$9,411	\$10,035	\$10,029	\$11,208	\$10,992	\$10,797	\$12,630	\$11,556	\$12,926
Retail Trade		\$5,513	\$5,600	\$5,461	\$5,399	\$5,626	\$6,354	\$5,794	\$5,746	\$6,420	\$6,501	\$6,109	\$6,273	\$6,817	\$6,752	\$7,134
Information		\$10,582	\$10,331	\$10,906	\$12,930	\$14,558	\$13,178	\$14,509	\$14,345	\$14,481	\$13,831	\$16,058	\$15,249	\$15,444	\$13,150	\$17,960
Financial Activities		\$10,829	\$9,976	\$9,730	\$8,751	\$11,755	\$12,684	\$9,524	\$9,478	\$11,268	\$12,181	\$10,032	\$11,962	\$10,962	\$13,746	\$14,893
Professional and Business Services		\$5,429	\$5,426	\$5,793	\$6,056	\$5,707	\$5,785	\$5,814	\$6,101	\$6,133	\$5,929	\$6,038	\$6,337	\$6,168	\$6,279	\$6,619
Educational Services		\$7,987	\$9,604	\$9,301	\$8,947	\$10,361	\$9,431	\$10,098	\$11,549	\$10,590	\$11,083	\$10,277	\$12,873	\$11,744	\$12,104	\$12,688
Health Care and Social Assistance		\$8,516	\$8,727	\$9,204	\$8,999	\$9,093	\$9,562	\$10,210	\$10,335	\$10,340	\$10,563	\$10,878	\$11,383	\$11,355	\$11,868	\$12,196
Leisure and Hospitality		\$5,095	\$5,059	\$4,848	\$4,909	\$4,746	\$5,471	\$5,228	\$5,155	\$5,057	\$5,838	\$5,471	\$5,375	\$5,943	\$5,738	\$6,145
Other Services		\$5,574	\$5,840	\$5,907	\$6,182	\$6,863	\$6,291	\$5,967	\$6,240	\$8,766	\$7,711	\$6,852	\$6,606	\$7,379	\$6,488	\$8,782
Public Administration		\$14,595	\$13,914	\$15,330	\$14,269	\$15,470	\$18,570	\$16,966	\$17,630	\$18,871	\$19,190	\$18,000	\$20,895	\$18,787	\$19,703	\$20,837

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

DIVISION OF VOCATIONAL REHABILITATION SERVICES

PROGRAM OVERVIEW

The North Carolina Division of Vocational Rehabilitation Services (DVRS) is responsible for the general state vocational rehabilitation services program under Title I, Part B of the Rehabilitation Act of 1973 as amended. It is also responsible for the state supported employment services program under Title VI, Part B, of this same act. The Rehabilitation Act of 1973, as amended, was part of the Workforce Information Act. In July of 2014, the Workforce Innovation and Opportunity Act (WIOA) was signed into law and made significant changes to title I of the Act that affect the VR program. WIOA strengthens the alignment of the VR program with other core components of the workforce development system and emphasizes the achievement of competitive integrated employment as well as the provision of services to students and youth with disabilities.

The Division of Vocational Rehabilitation Services provides counseling, training, education, transportation, job placement, assistive technology, and other support services to people with disabilities through seventy-two local offices, two vocational rehabilitation training facilities, and public school systems throughout North Carolina.¹¹ These services are provided to people with a wide range of physical, psychiatric, or intellectual disabilities, deafness or auditory impairment, and other communicative disorders. Services are provided to individuals to assist them with finding a job and staying on the job. Some services are provided based on economic need, while others are provided regardless of income.

For a person to be eligible for Vocational Rehabilitation services they must have a physical, mental, or intellectual impairment that limits their opportunities to find or keep a job, and require Vocational Rehabilitation program services for job preparation, search, or retention. Individuals who are receiving Social Security Disability Insurance or Supplemental Security Income benefits are presumed eligible for Vocational Rehabilitation program services if they intend to get or keep a job.¹²

VOCATIONAL REHABILITATION PROGRAM OUTCOMES

As shown in Figure 21, the number of individuals exiting the Vocational Rehabilitation program has stayed relatively stable throughout the period studied, with the exception of a notable increase in 2013-2014. A decline in the number of participants reported for 2014-2015 was due to a change in the reporting definition of program participants.

Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

Employment (*Figure 22*) and wage outcomes (*Figure 23*) were examined separately for each cohort exiting the Vocational Rehabilitation program, for up to five years after exit (*also see Table 6*). One-year post-exit employment rates fluctuated but overall increased across cohorts, ranging from a low of 41% for 2010-2011 program year exiters to a high of 51% for 2014-2015 program year exiters. One year post exit median annual wages fluctuated, ranging from \$8,158 for 2010-2011 exiters to \$8,854 for 2014-2015 exiters.

¹¹ North Carolina Division of Vocational Rehabilitation Services, ncdhhs.gov/dvrs/aboutus.htm

¹² North Carolina Division of Vocational Rehabilitation Services, ncdhhs.gov/dvrs/pwd/faqs.htm

Longer term post-exit employment and wage measures indicate a slight decrease in the percentage of each exiting cohort who were employed in North Carolina over time. Wages, however, increased over time within each exiting cohort. The 2010-2011 exiters saw median annual wages increase from \$8,158 at one year post exit to \$9,210 and \$11,371 at three and five years post exit, respectively. The 2011-2012 exiters had an increase in median wages from \$8,389 one year after exit to \$9,594 in year three and \$10,621 in year four, while the 2012-2013 exiters experienced a median wage increase from \$8,298 in year one to \$9,828 in year three.

FIGURE 21.
Vocational Rehabilitation Program Participants and Exiters by Program Year

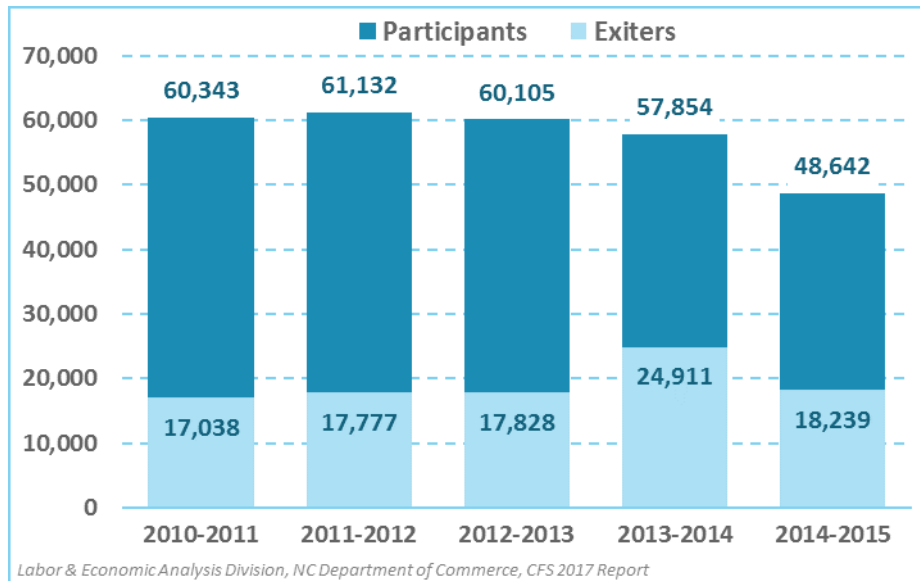


FIGURE 22.
Percentage of Vocational Rehabilitation Program Exiters Employed in North Carolina After Exit, by Year of Exit

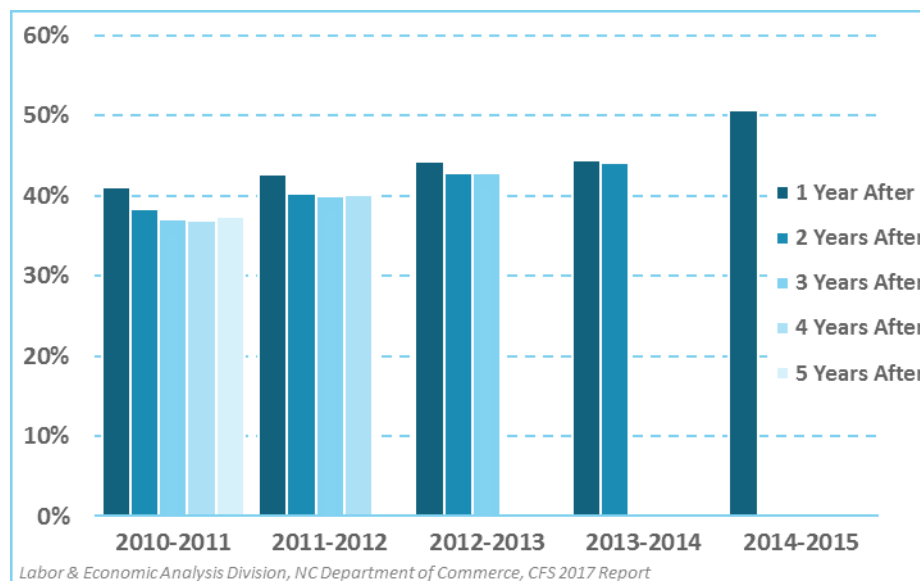
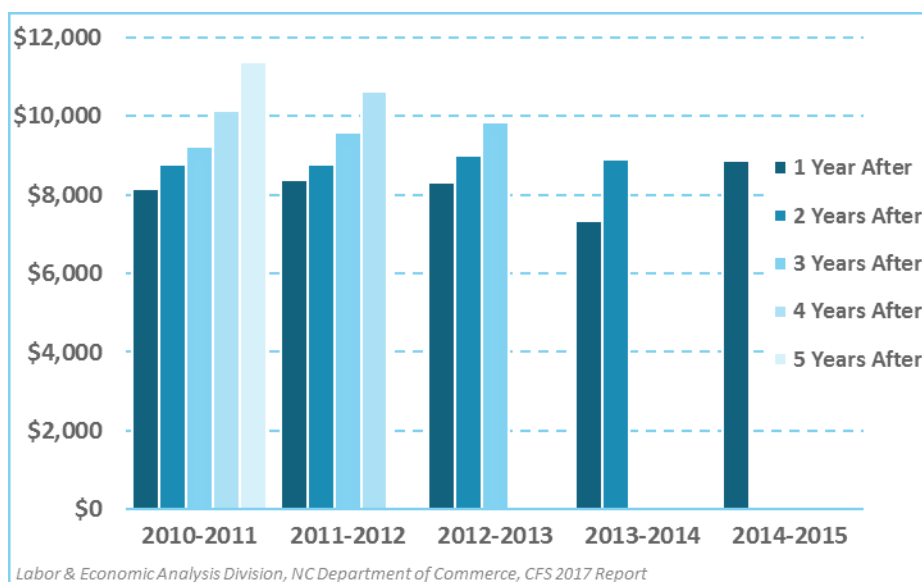
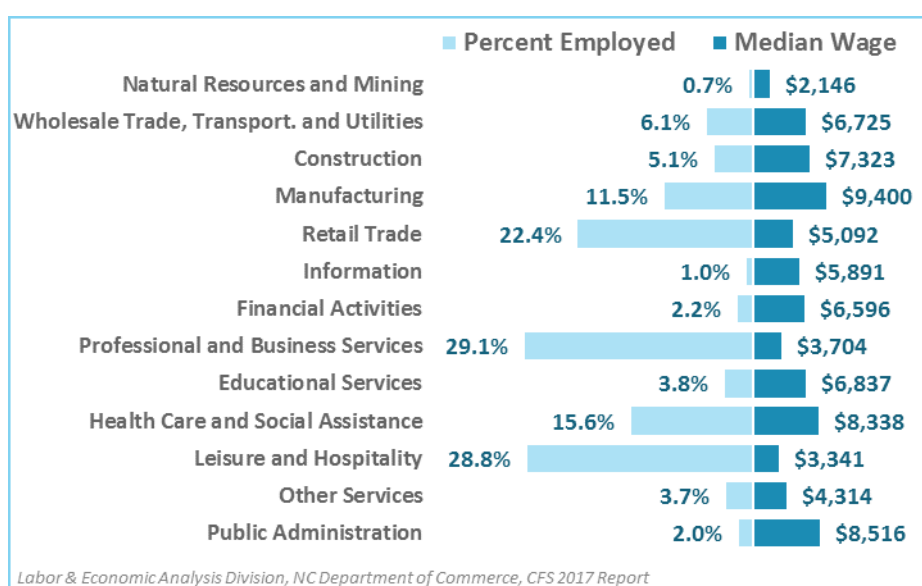


FIGURE 23.
Median Wage of Vocational Rehabilitation Program Exiters in North Carolina,
by Year of Exit



In examining one year post exit wage and employment outcomes by industry (*Figure 24*) for the most recent cohort of Vocational Rehabilitation program exiters (2014-2015) examined in this report, industries employing these former program participants include Retail Trade (22%), Professional and Business Services (29%), Leisure and Hospitality (29%), Health Care and Social Assistance (16%), and Manufacturing (12%). Of these, the least prevalent have the highest median wage (Manufacturing, \$9,400, and Health Care and Social Assistance, \$8,338).

FIGURE 24.
2014-2015 Vocational Rehabilitation Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



SUMMARY AND RECOMMENDATIONS

Overall, the results indicate that there have been relatively stable short-term employment rates and median wages for Vocational Rehabilitation program exiters, as indicated by the one-year post employment and wage trends. However, when exiters are followed over time, median wages rise while the employment rate declines somewhat. This decline could be attributable to several factors including people not sustaining employment, moving out of state, or finding employment in jobs not covered by North Carolina's unemployment insurance laws. There are a variety of reasons why individuals are not found in covered employment including retirement, death, and inability to find employment, or leaving the labor force.

The 2015 annual median wage in North Carolina for all persons employed in unemployment insurance-covered jobs was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.¹³ Median wages for DVRS program exiters are shown in Table 6, and range from \$7,332 for 2013-2014 program exiters one year after exit, to \$11,371 for 2010-2011 exiters five years post exit. These are well below the typical annual income in North Carolina and below the U.S. poverty line.

It is important to keep in mind that persons participating in rehabilitation services through the DVRS have disabilities or communicative disorders which may impact the number of hours they can work and their ability to maintain employment. These factors contribute to the low post-exit wage rates for this program. Further analyses are recommended to assess the various disability categories to determine if there are differential outcomes by type or severity of disability. In addition, further analyses by region are needed in order to determine if there are geographical disparities in outcomes.

Part of the requirement of the new WIOA is the development of an integrated service delivery plan that includes the coordination between WIOA, Wagner-Peyser, Adult Basic Education and Vocational Rehabilitation programs. It is recommended that North Carolina's integrated service delivery plan and implementation continue to focus on the leveraging of resources and services across these programs and focus on achieving higher employment and wage outcomes for all participants and the acquisition of increased occupational skills and educational credentials.

¹³ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 6.

Vocational Rehabilitation Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

Department of Health and Human Services							Common Follow-up System: Evaluative Measures, 2017 Report									
Vocational Rehabilitation - Employment and Training Program							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		60,343	61,132	60,105	57,854	48,642	60,343	61,132	60,105	57,854	60,343	61,132	60,105	60,343	61,132	60,343
Exiters		17,038	17,777	17,828	24,911	18,239	17,038	17,777	17,828	24,911	17,038	17,777	17,828	17,038	17,777	17,038
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina		N 6,999 41%	7,585 43%	7,898 44%	11,075 44%	9,238 51%	6,529 38%	7,143 40%	7,625 43%	10,993 44%	6,308 37%	7,104 40%	7,622 43%	6,298 37%	7,129 40%	6,365 37%
Exiters' Wages in North Carolina		Mean \$11,016 Median \$8,158	\$11,220 \$8,389	\$10,869 \$8,298	\$10,194 \$7,332	\$11,784 \$8,854	\$11,962 \$8,766	\$12,038 \$8,764	\$11,764 \$8,986	\$12,003 \$8,903	\$12,797 \$9,210	\$13,030 \$9,594	\$12,984 \$9,828	\$13,982 \$10,140	\$14,285 \$10,621	\$15,186 \$11,371
Exiters Enrolled in NC Public Higher Education		N 2,966 17%	3,020 17%	2,823 16%	3,791 15%	2,482 14%	2,704 16%	2,600 15%	2,334 13%	3,009 12%	2,276 13%	2,087 12%	2,026 11%	1,919 11%	1,751 10%	1,541 9%
Exiters Enrolled in NC Public Education, Employment, or Training Program		N 4,848 28%	4,955 28%	4,727 27%	6,820 27%	4,695 26%	4,856 29%	4,810 27%	4,684 26%	10,694 43%	4,518 27%	4,591 26%	4,717 26%	4,127 24%	4,368 25%	3,829 22%
Exiters Enrolled or Employed in NC		N 9,140 54%	9,680 54%	9,776 55%	13,666 55%	10,694 59%	8,730 51%	9,249 52%	9,425 53%	15,893 64%	8,375 49%	8,945 50%	9,362 53%	8,004 47%	8,796 49%	7,899 46%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.8%	0.8%	0.7%	0.8%	0.7%	0.8%	0.9%	0.8%	0.8%	1.0%	0.9%	1.0%	1.0%	0.9%	1.0%
Wholesale Trade, Transport. and Utilities		4.7%	5.3%	4.8%	5.3%	6.1%	5.1%	5.6%	5.4%	6.1%	5.7%	6.3%	6.2%	5.5%	6.4%	6.9%
Construction		4.8%	4.5%	4.6%	4.5%	5.1%	5.2%	5.1%	5.1%	4.9%	5.5%	5.7%	5.2%	5.6%	5.9%	6.2%
Manufacturing		10.3%	10.6%	9.0%	9.4%	11.5%	11.0%	10.9%	10.1%	10.6%	11.2%	12.1%	11.4%	12.0%	13.6%	12.8%
Retail Trade		20.1%	20.3%	22.4%	23.1%	22.4%	19.7%	20.3%	21.6%	21.8%	19.9%	20.3%	20.3%	19.6%	19.7%	18.9%
Information		0.9%	0.9%	0.7%	0.9%	1.0%	1.0%	0.9%	0.8%	1.0%	1.0%	1.0%	0.8%	1.0%	1.0%	1.0%
Financial Activities		1.8%	2.1%	2.2%	2.3%	2.2%	2.1%	2.4%	2.5%	2.1%	2.6%	2.4%	2.3%	3.0%	2.2%	2.5%
Professional and Business Services		26.1%	27.2%	27.3%	29.0%	29.1%	26.8%	28.7%	28.0%	28.6%	26.4%	28.1%	27.7%	27.2%	28.0%	27.7%
Educational Services		3.9%	4.3%	4.1%	3.9%	3.8%	4.2%	4.4%	4.3%	3.6%	4.2%	4.2%	4.3%	4.5%	4.1%	4.4%
Health Care and Social Assistance		17.7%	15.6%	17.1%	15.9%	15.6%	17.5%	15.8%	17.1%	15.9%	17.3%	16.2%	16.9%	16.7%	16.4%	16.7%
Leisure and Hospitality		24.6%	26.2%	28.1%	28.8%	28.8%	23.8%	25.4%	26.5%	28.3%	23.9%	25.0%	26.5%	23.5%	25.2%	24.0%
Other Services		3.8%	3.5%	3.3%	3.7%	3.7%	3.8%	3.5%	3.4%	3.6%	3.7%	3.4%	3.3%	3.5%	3.4%	3.6%
Public Administration		2.4%	2.3%	1.8%	2.1%	2.0%	2.6%	2.2%	2.0%	2.3%	2.6%	2.3%	2.2%	2.8%	2.3%	3.2%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$4,298	\$3,213	\$3,827	\$1,821	\$2,146	\$4,738	\$4,164	\$4,771	\$2,728	\$5,175	\$6,499	\$4,599	\$7,477	\$5,035	\$4,802
Wholesale Trade, Transport. and Utilities		\$8,469	\$7,779	\$7,321	\$5,220	\$6,725	\$7,245	\$8,508	\$8,602	\$6,007	\$7,227	\$8,738	\$8,802	\$8,567	\$9,631	\$6,628
Construction		\$6,907	\$6,970	\$6,240	\$5,961	\$7,323	\$7,012	\$6,864	\$6,950	\$6,006	\$7,148	\$9,660	\$8,260	\$9,225	\$9,825	\$9,119
Manufacturing		\$9,748	\$10,449	\$8,706	\$8,171	\$9,400	\$11,587	\$11,825	\$10,677	\$9,731	\$13,292	\$11,600	\$10,832	\$13,703	\$12,589	\$14,569
Retail Trade		\$5,771	\$5,514	\$5,294	\$4,435	\$5,092	\$5,781	\$5,493	\$5,698	\$5,452	\$5,471	\$5,491	\$5,648	\$6,185	\$5,902	\$5,356
Information		\$6,478	\$5,001	\$7,202	\$5,302	\$5,891	\$6,368	\$6,287	\$7,611	\$4,621	\$6,372	\$7,088	\$7,827	\$7,326	\$7,468	\$4,993
Financial Activities		\$9,021	\$7,606	\$4,970	\$3,588	\$6,596	\$8,452	\$7,142	\$3,932	\$4,802	\$8,572	\$4,536	\$6,719	\$5,082	\$9,873	\$8,124
Professional and Business Services		\$3,950	\$3,998	\$4,060	\$3,228	\$3,704	\$3,683	\$3,940	\$3,500	\$3,389	\$3,784	\$3,845	\$3,638	\$3,721	\$3,972	\$4,088
Educational Services		\$6,785	\$7,344	\$7,356	\$5,660	\$6,837	\$7,698	\$7,578	\$8,254	\$7,677	\$8,621	\$7,909	\$9,262	\$8,385	\$9,139	\$10,715
Health Care and Social Assistance		\$7,796	\$8,196	\$7,702	\$6,663	\$8,338	\$8,204	\$7,757	\$8,792	\$7,875	\$8,118	\$7,708	\$9,404	\$10,133	\$8,772	\$10,771
Leisure and Hospitality		\$3,864	\$3,893	\$3,495	\$2,840	\$3,341	\$3,757	\$3,945	\$3,650	\$3,685	\$3,883	\$4,091	\$3,563	\$4,121	\$4,063	\$4,024
Other Services		\$5,379	\$3,552	\$4,580	\$2,884	\$4,314	\$5,483	\$3,734	\$4,710	\$4,527	\$6,496	\$4,620	\$3,856	\$5,364	\$4,369	\$5,522
Public Administration		\$8,773	\$8,039	\$10,284	\$8,364	\$8,516	\$11,061	\$11,060	\$9,803	\$13,096	\$13,766	\$11,252	\$11,753	\$17,055	\$17,251	\$15,173
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$9,738	\$9,605	\$7,595	\$5,822	\$6,917	\$10,190	\$9,199	\$9,762	\$7,705	\$9,753	\$10,570	\$9,700	\$10,338	\$11,757	\$10,688
Wholesale Trade, Transport. and Utilities		\$13,619	\$12,492	\$11,753	\$9,651	\$11,620	\$12,746	\$13,464	\$12,695	\$11,474	\$12,675	\$14,665	\$13,373	\$14,334	\$15,487	\$13,517
Construction		\$11,395	\$10,448	\$10,756	\$10,616	\$12,122	\$11,537	\$11,418	\$12,228	\$11,618	\$12,811	\$13,437	\$14,213	\$14,483	\$14,637	\$15,460
Manufacturing		\$12,667	\$13,540	\$12,257	\$12,109	\$13,224	\$14,395	\$15,132	\$13,533	\$13,764	\$15,864	\$15,480	\$14,836	\$16,984	\$16,250	\$17,508
Retail Trade		\$7,747	\$7,812	\$7,395	\$6,843	\$7,484	\$8,226	\$7,997	\$7,897	\$7,995	\$8,245	\$8,251	\$8,678	\$9,026	\$9,080	\$9,258
Information		\$11,192	\$12,294	\$12,222	\$10,454	\$9,205	\$10,209	\$12,553	\$13,887	\$12,263	\$12,597	\$13,255	\$13,406	\$16,471	\$14,146	\$15,373
Financial Activities		\$13,967	\$13,392	\$10,823	\$9,761	\$11,563	\$16,246	\$13,233	\$10,709	\$11,987	\$16,019	\$13,420	\$13,864	\$15,872	\$17,341	\$21,679
Professional and Business Services		\$7,243	\$7,122	\$7,373	\$6,605	\$6,986	\$7,431	\$7,226	\$7,134	\$7,099	\$7,753	\$7,607	\$7,409	\$7,936	\$7,802	\$8,234
Educational Services		\$11,226	\$12,507	\$10,542	\$10,042	\$10,853	\$12,191	\$12,879	\$12,243	\$12,351	\$13,210	\$13,630	\$13,190	\$13,606	\$15,369	\$15,788
Health Care and Social Assistance		\$11,015	\$11,326	\$10,749	\$9,921	\$11,664	\$11,897	\$11,561	\$11,514	\$11,663	\$12,381	\$11,687	\$12,317	\$13,910	\$12,433	\$14,561
Leisure and Hospitality		\$5,479	\$5,754	\$5,459	\$4,885	\$5,480	\$5,807	\$6,000	\$5,763	\$5,676	\$5,922	\$6,323	\$6,024	\$6,435	\$6,577	\$6,657
Other Services		\$8,115	\$7,894	\$8,779	\$6,897	\$7,364	\$8,836	\$8,014	\$8,338	\$8,749	\$10,240	\$8,876	\$7,768	\$10,101	\$9,364	\$9,840
Public Administration		\$15,132	\$13,003	\$16,036	\$14,344	\$14,632	\$15,545	\$15,460	\$15,119	\$16,583	\$17,620	\$16,515	\$16,473	\$18,439	\$19,577	\$19,233

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

DIVISION OF SERVICES FOR THE BLIND

PROGRAM OVERVIEW

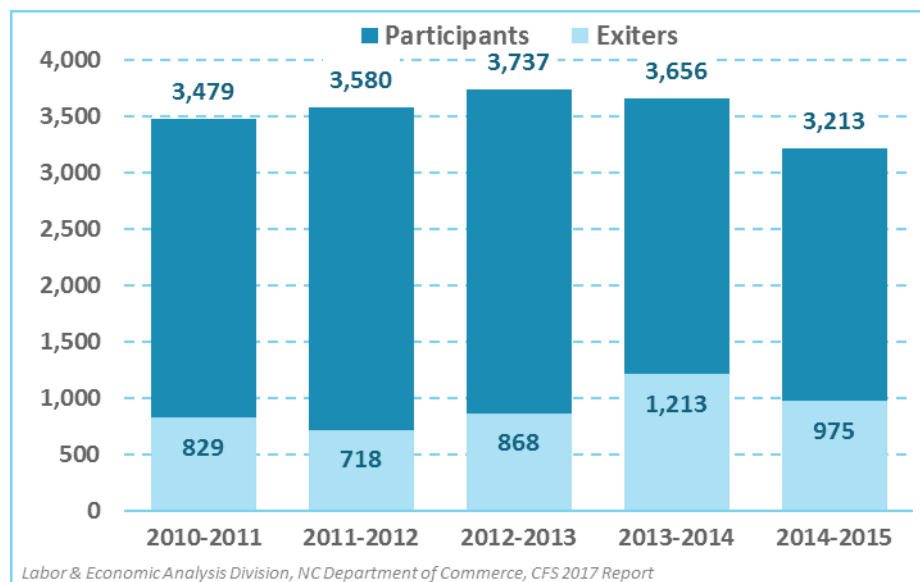
The Division of Services for the Blind (DSB) provides vocational rehabilitation services to enable the blind or visually impaired – including individuals who are deafblind – to reach their goals of independence and employment.¹⁴ Together with DVRS, DSB is responsible for the state vocational rehabilitation services program under Title I, Part B of the Rehabilitation Act of 1973; for the state-supported employment services program under Title VI, Part B of this act; and for providing partner services under WIOA.

DSB services help individuals find a job, keep a job, or return to work, and are tailored to the unique vocational assistance needs of those with vision loss or impairment. Individuals can choose from an array of programs and services that best suit their individual vocational needs.¹⁵ DSB services tackle the skills and technologies required by workers and job-seekers with visual loss or impairment, encompassing a wide range of job and mobility trainings, coaching services, assistive technologies, and medical assistance with vision loss or impairment. Some services are provided based on economic need, while others are provided regardless of income. Services are provided through staff located in district offices, through third-party agreements with local Department of Social Services offices and local school districts, and through the Rehabilitation Center for the Blind.

DSB VOCATIONAL REHABILITATION PROGRAM OUTCOMES

As shown in Figure 25, the number of individuals receiving vocational rehabilitation services through DSB has fluctuated little between the 2010-2011 and 2014-2015 program years. Between 3,213 and 3,737 individuals were served during each program year during this time.

FIGURE 25.
DSB Vocational Rehabilitation Program Participants and Exiters by Program Year



¹⁴ Division of Services for the Blind, ncdhs.gov/dsb

¹⁵ Division of Services for the Blind, ncdhs.gov/assistance/vision-loss/vocational-rehabilitation-for-blind

Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit. Analyses included the development of post-exit employment rates (*Figure 26*) and wage statistics (*Figure 27*) for up to five years after exit (*also see Table 7*). One-year post-exit employment rates ranged from a low of 46% for the 2012-2013 exiters to a high of 51% for the 2011-2012 exiters. One-year post-exit median wages were fairly stable over time, ranging from \$13,547 for the 2010-2011 program year exiters to a high of \$15,708 for the 2012-2013 exiters.

FIGURE 26.
Percentage of DSB Vocational Rehabilitation Program Exiters Employed in North Carolina After Exit, by Year of Exit

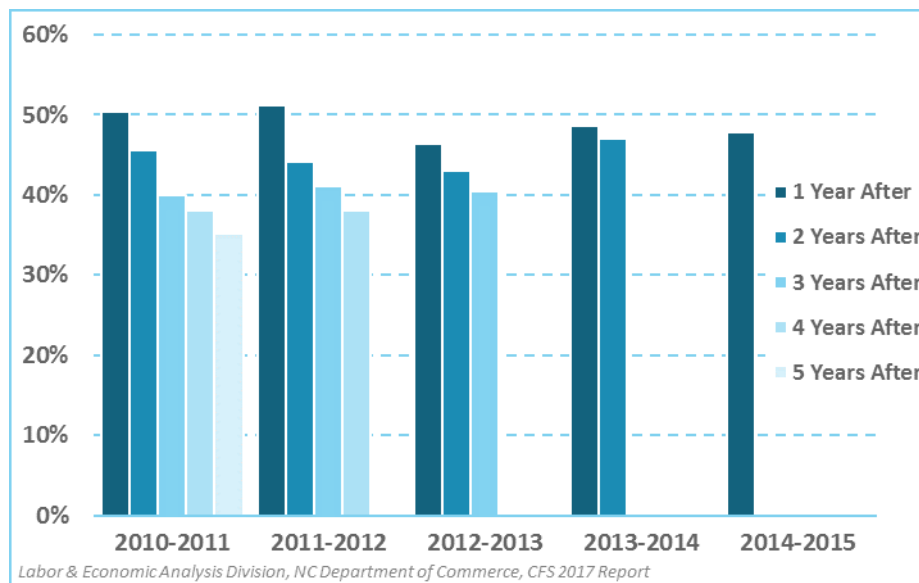
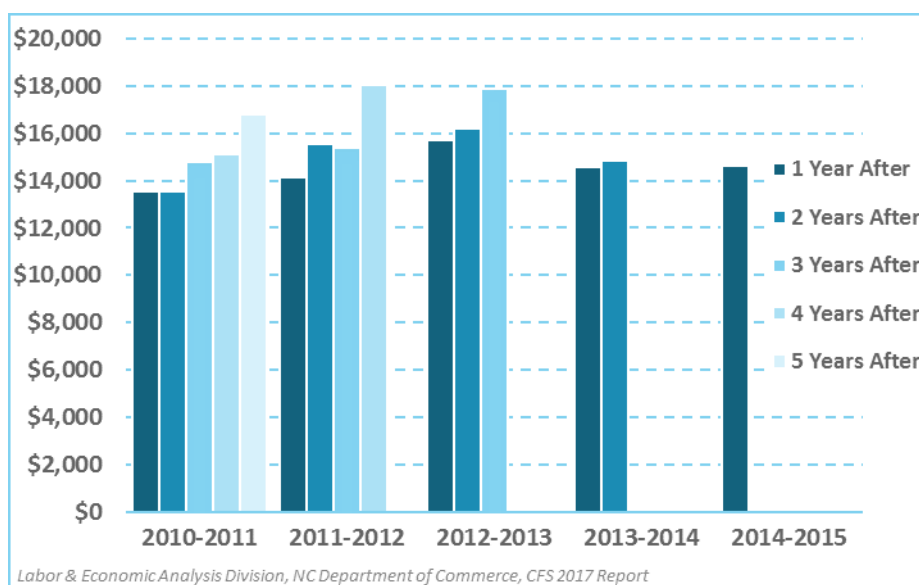


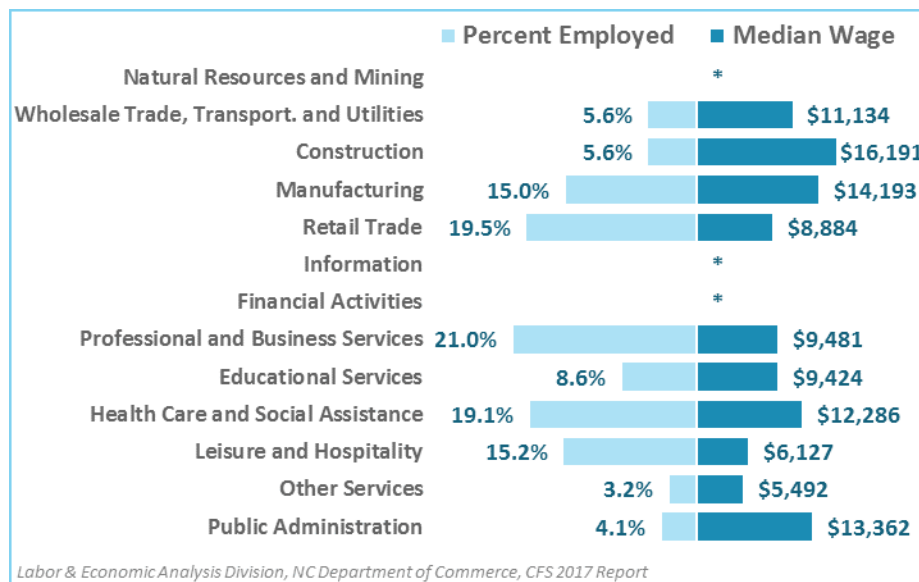
FIGURE 27.
Median Wage of DSB Vocational Rehabilitation Program Exiters in North Carolina, by Year of Exit



Longer term post-exit employment and wage measures show decreasing employment rates, combined with increasing wages over time, for all cohorts. Earlier cohorts show steeper decreases in employment rates compared to recent ones, while wage growth rates do not show a clear pattern across cohorts. However, earlier cohorts have data on as many as five years after program exit, whereas recent cohorts have fewer years of outcomes available. Emerging cohort-based patterns may change or become less prominent in the future.

In examining one-year post-exit wage and employment outcomes by industry (*Figure 28*) for the most recent cohort of Services for the Blind Vocational Rehabilitation program exiters (2014-2015), industries employing these former program participants include Professional and Business Services (21%), Retail Trade (20%), Health Care and Social Assistance (19%), Leisure and Hospitality (15%), and Manufacturing (15%). Of these, Manufacturing and Health Care and Social Assistance have the highest annual median wage among program exiters (\$14,193 and \$12,286, respectively).

FIGURE 28.
2014-2015 DSB Vocational Rehabilitation Program Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



SUMMARY AND RECOMMENDATIONS

Overall, the results show fluctuations in the short-term employment rates, and increases in the short-term median wages, for DSB program exiters. This is indicated by the one-year post-exit employment and wage trends. However, when exiters are followed over longer periods of time the employment rate tends to decline. This decline could be attributable to several factors, including people not sustaining employment, moving out of state, or finding employment in jobs not covered by North Carolina's unemployment insurance laws.

Over time, the median wages of DSB exiters increased within each cohort. For example, the 2011-2012 cohort saw one-year post-exit median wages of \$14,147 increase to \$18,051 four years post exit. By contrast, the 2015 annual median wage in North Carolina for all persons employed in unemployment insurance-covered jobs was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household. While the annual median post-exit wage of DSB clients is below the state's annual median, it exceeds the federal poverty guidelines for a one- or two-person household, and shows annual growth for those individuals who are employed after exit.

As previously noted, part of the requirement of the new WIOA is the development of an integrated service delivery plan that includes the coordination between WIOA, Wagner-Peyser, Adult Basic Education, and Vocational Rehabilitation programs. It is recommended that North Carolina's integrated service delivery plan and implementation continue to focus on the leveraging of resources and services across these programs and focus on achieving higher employment and wage outcomes for all participants and the acquisition of increased occupational skills and educational credentials.

¹⁶ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 7.

DSB Vocational Rehabilitation Program Participants and Exiters, Outcomes One Through Five Years After Exit, Overall and By Industry

Department of Health and Human Services										Common Follow-up System: Evaluative Measures, 2017 Report						
Services for the Blind - Employment and Training Program										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce						
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		3,479	3,580	3,737	3,656	3,213	3,479	3,580	3,737	3,656	3,479	3,580	3,737	3,479	3,580	3,479
Exiters		829	718	868	1,213	975	829	718	868	1,213	829	718	868	829	718	829
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N	418	368	403	590	466	378	317	374	571	331	295	351	316	273	292
	%	50%	51%	46%	49%	48%	46%	44%	43%	47%	40%	41%	40%	38%	38%	35%
Exiters' Wages in North Carolina		Mean Median	\$15,868 \$13,547	\$16,687 \$14,147	\$17,776 \$15,708	\$16,771 \$14,571	\$15,939 \$13,520	\$17,798 \$15,569	\$18,474 \$16,211	\$17,796 \$14,858	\$17,774 \$14,809	\$18,802 \$15,402	\$20,234 \$17,864	\$18,382 \$15,134	\$20,996 \$18,051	\$20,128 \$16,791
Exiters Enrolled in NC Public Higher Education	N	64	50	54	97	67	56	56	51	62	59	46	36	52	29	35
	%	8%	7%	6%	8%	7%	7%	8%	6%	5%	7%	6%	4%	6%	4%	4%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	148	111	103	218	176	154	102	124	365	142	114	107	123	88	112
	%	18%	15%	12%	18%	18%	19%	14%	14%	30%	17%	16%	12%	15%	12%	14%
Exiters Enrolled or Employed in NC	N	463	395	430	664	520	433	350	417	736	397	330	387	366	303	338
	%	56%	55%	50%	55%	53%	52%	49%	48%	61%	48%	46%	45%	44%	42%	41%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		5.3%	3.0%	5.7%	5.4%	5.6%	5.8%	3.8%	5.6%	5.6%	6.3%	5.1%	4.0%	6.0%	5.9%	7.5%
Construction		4.3%	4.1%	4.7%	3.4%	5.6%	3.7%	5.0%	4.8%	5.6%	3.6%	3.7%	4.3%	4.7%	5.9%	4.1%
Manufacturing		13.4%	10.6%	12.9%	12.5%	15.0%	11.9%	11.0%	15.2%	13.0%	13.9%	14.6%	14.0%	13.0%	12.1%	13.0%
Retail Trade		20.3%	20.4%	13.6%	19.5%	19.5%	18.8%	21.5%	15.0%	20.3%	16.9%	22.7%	15.1%	14.2%	21.2%	15.1%
Information		*	*	*	1.9%	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		4.5%	4.6%	2.5%	3.9%	*	3.7%	4.7%	2.9%	3.9%	3.6%	3.4%	3.4%	4.1%	4.4%	3.8%
Professional and Business Services		18.4%	17.7%	19.9%	20.0%	21.0%	18.3%	19.6%	19.8%	18.0%	19.3%	19.7%	19.7%	19.9%	18.3%	17.1%
Educational Services		7.2%	6.3%	5.2%	7.5%	8.6%	7.7%	5.4%	5.3%	8.1%	6.9%	7.1%	5.4%	7.3%	7.3%	7.2%
Health Care and Social Assistance		20.6%	20.7%	24.6%	19.0%	19.1%	18.8%	20.5%	21.9%	20.1%	20.2%	17.3%	22.5%	19.9%	18.3%	21.6%
Leisure and Hospitality		12.0%	15.8%	14.4%	18.0%	15.2%	14.3%	13.6%	13.9%	18.9%	12.4%	10.8%	12.5%	9.8%	10.3%	11.0%
Other Services		3.1%	3.0%	3.7%	4.6%	3.2%	2.6%	*	3.7%	3.9%	4.2%	*	5.4%	5.1%	5.1%	5.1%
Public Administration		2.9%	3.5%	4.7%	3.4%	4.1%	3.2%	4.7%	5.3%	3.5%	3.0%	4.4%	5.4%	*	4.0%	3.8%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$17,501	\$12,589	\$14,326	\$12,840	\$11,134	\$19,306	\$15,964	\$14,707	\$14,726	\$22,722	\$20,440	\$18,126	\$21,996	\$26,524	\$17,884
Construction		\$15,811	\$19,950	\$9,586	\$19,224	\$16,191	\$16,875	\$15,591	\$9,785	\$8,806	\$20,128	\$24,989	\$20,232	\$4,458	\$20,608	\$15,738
Manufacturing		\$15,751	\$16,370	\$16,268	\$17,208	\$14,193	\$19,891	\$18,346	\$16,185	\$17,689	\$15,310	\$15,833	\$16,629	\$18,320	\$19,526	\$19,080
Retail Trade		\$9,805	\$13,013	\$12,170	\$10,951	\$8,884	\$9,037	\$13,908	\$11,309	\$11,597	\$11,843	\$12,087	\$11,782	\$12,485	\$11,990	\$11,536
Information		*	*	*	\$11,415	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		\$15,087	\$20,501	\$19,687	\$18,525	*	\$16,982	\$16,682	\$20,174	\$16,478	\$17,387	\$17,910	\$27,966	\$14,273	\$21,300	\$27,756
Professional and Business Services		\$7,244	\$10,253	\$10,154	\$6,929	\$9,481	\$5,554	\$9,218	\$9,212	\$6,528	\$6,941	\$7,378	\$9,667	\$6,546	\$10,470	\$7,567
Educational Services		\$9,494	\$9,601	\$9,525	\$12,455	\$9,424	\$11,969	\$13,883	\$9,920	\$12,792	\$12,984	\$13,267	\$7,886	\$12,514	\$16,873	\$15,301
Health Care and Social Assistance		\$13,441	\$13,053	\$14,831	\$12,446	\$12,286	\$13,531	\$12,581	\$17,109	\$11,087	\$11,737	\$15,191	\$15,068	\$15,640	\$14,711	\$16,397
Leisure and Hospitality		\$9,177	\$7,064	\$6,325	\$7,403	\$6,127	\$8,714	\$3,879	\$7,976	\$6,146	\$10,283	\$6,650	\$11,412	\$12,908	\$8,044	\$8,379
Other Services		\$14,046	\$5,735	\$14,126	\$5,231	\$5,492	\$12,487	*	\$20,823	\$4,311	\$12,554	*	\$14,269	\$13,765	\$3,924	\$14,856
Public Administration		\$7,660	\$11,380	\$25,545	\$11,306	\$13,362	\$6,098	\$11,461	\$20,438	\$10,624	\$6,531	\$12,338	\$26,557	*	\$12,776	\$6,964
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$22,485	\$15,753	\$17,533	\$17,727	\$17,029	\$20,532	\$19,311	\$16,919	\$20,405	\$24,201	\$20,589	\$20,529	\$30,092	\$23,127	\$24,835
Construction		\$17,135	\$21,173	\$16,002	\$21,787	\$18,524	\$18,293	\$15,542	\$16,949	\$17,751	\$21,679	\$25,902	\$21,062	\$15,622	\$21,509	\$23,341
Manufacturing		\$16,197	\$18,546	\$18,336	\$19,346	\$15,286	\$20,222	\$22,783	\$15,339	\$22,611	\$18,165	\$19,775	\$17,978	\$21,424	\$25,018	\$21,715
Retail Trade		\$11,585	\$12,988	\$12,410	\$11,512	\$11,305	\$12,506	\$13,735	\$11,817	\$11,841	\$14,252	\$12,670	\$13,540	\$15,311	\$13,286	\$14,914
Information		*	*	*	\$10,841	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		\$19,728	\$28,199	\$20,052	\$28,621	*	\$20,336	\$23,283	\$19,464	\$26,784	\$18,385	\$29,732	\$26,753	\$22,913	\$31,636	\$33,772
Professional and Business Services		\$10,704	\$14,184	\$13,528	\$12,341	\$12,761	\$10,874	\$14,530	\$12,620	\$12,095	\$12,614	\$14,018	\$13,795	\$11,631	\$16,029	\$13,792
Educational Services		\$15,245	\$17,926	\$16,137	\$14,606	\$12,573	\$16,977	\$20,860	\$17,512	\$15,027	\$20,770	\$16,851	\$16,666	\$19,025	\$20,954	\$19,680
Health Care and Social Assistance		\$13,109	\$14,108	\$16,444	\$14,396	\$13,879	\$13,485	\$14,107	\$19,567	\$13,407	\$13,810	\$16,747	\$20,271	\$16,687	\$17,937	\$18,616
Leisure and Hospitality		\$10,939	\$8,526	\$8,483	\$8,070	\$9,482	\$9,483	\$7,597	\$9,449	\$8,020	\$11,674	\$8,733	\$12,780	\$12,749	\$10,658	\$11,407
Other Services		\$13,148	\$10,183	\$15,061	\$9,340	\$9,425	\$14,175	*	\$19,071	\$8,953	\$12,834	*	\$16,059	\$12,902	\$8,158	\$13,239
Public Administration		\$11,562	\$14,938	\$23,882	\$13,889	\$17,611	\$11,925	\$14,604	\$23,467	\$13,282	\$12,667	\$15,961	\$27,237	*	\$16,333	\$13,389

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM (NCCCS)

CAREER AND TECHNICAL EDUCATION (CTE) PROGRAMS

OVERVIEW OF CTE PROGRAMS

North Carolina's Community Colleges offer a diverse set of programs aimed at minimizing barriers to high-quality post-secondary education and developing a competent workforce. Curriculum programs range in length from one semester to two years, and include a wide variety of programs offered within the area of Applied Sciences, as well as College Transfer and General Education programs in areas including, but not limited to, Arts and Sciences.

Academic credentials conferred by curriculum programs may include certificates, diplomas, or associate degrees, depending on the specific area and program.¹⁷ Certificate programs are curriculum programs designed to provide entry-level, employment-related training, ranging from 12 to 18 semester credit hours, and with full-time enrollment can usually be completed within one semester. Diploma programs are longer curriculum programs also designed to provide entry-level employment-related training. They range from 36 to 48 semester credit hours, and with full-time enrollment can usually be completed within two semesters and one summer session. Associate degree programs are planned academic curriculum programs designed to provide students with employment-related training or academic preparation for college transfer to a four-year institution. Associate degree programs typically include 60 to 76 semester credit hours and can usually be completed within four semesters by a full-time student.

This report focuses on Career and Technical Education (CTE) programs as they are related to employment and workforce training. CTE programs are a subset of Applied Science curriculum programs.

All of North Carolina's community colleges offer Applied Science programs. Over 200 certificate, diploma, and associate degree programs are offered in Applied Sciences, with each of these courses of study falling into one of ten broad fields: agricultural and natural resource technologies, biological and chemical technologies, business technologies, commercial and artistic production technologies, construction technologies, engineering technologies, health sciences, industrial technologies, public service technologies, and transport systems technologies.

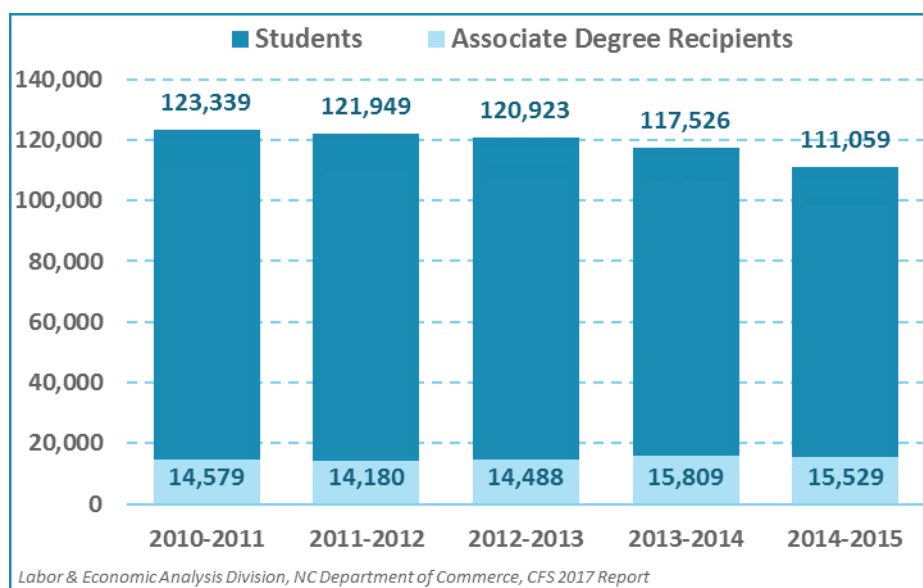
Nearly all of the curriculum programs in the Applied Sciences receive funding through the U.S. Department of Education's Carl D. Perkins Career and Technical Educational Act of 2006; in this report, these are referred to as Career and Technical Education programs. The Perkins Act is intended to more fully develop the academic, vocational, and technical skills of secondary and postsecondary students who elect to enroll in vocational and technical education programs. The North Carolina Department of Public Instruction (DPI) is the recipient of the Federal Perkins Act funds and works in collaboration with the North Carolina Community College System to implement and deliver the programs and activities required under the Perkins Act. Funding is split between DPI and NCCCS. Perkins Act programs are also required partners under WIOA.

¹⁷ North Carolina Community College System, ncccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog

CTE ASSOCIATE DEGREE PROGRAM OUTCOMES

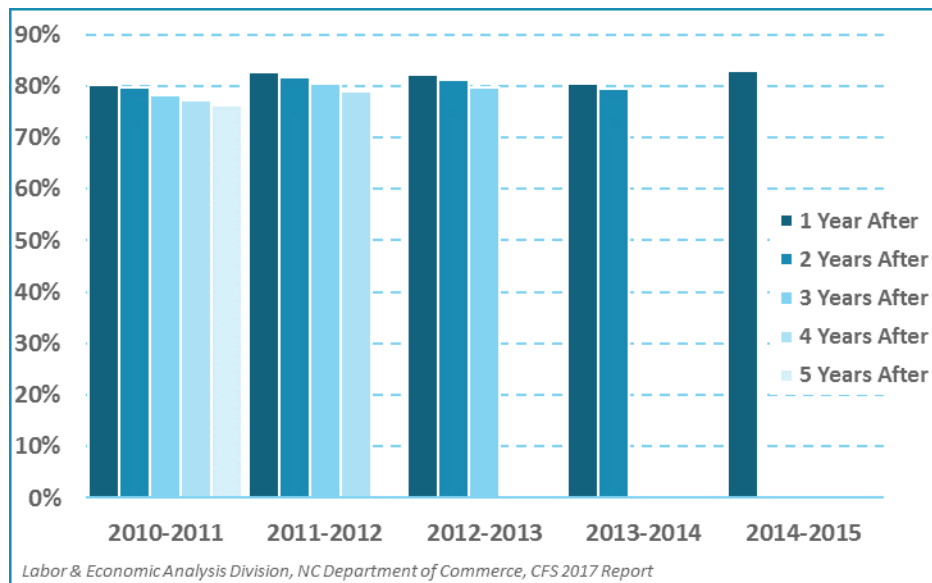
As shown in Figure 29, participation in CTE associate degree programs declined throughout the period studied, with the number of students decreasing from 123,339 in the 2010-2011 program year to 111,059 in 2014-2015. Students who were recorded as having graduated from an associate degree program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion. The number of CTE associate degree program completers trended slightly upward during the five program years, from 14,579 to 15,529.

FIGURE 29.
*NCCCS CTE Associate Degree Program Participants and Completers
by Program Year*



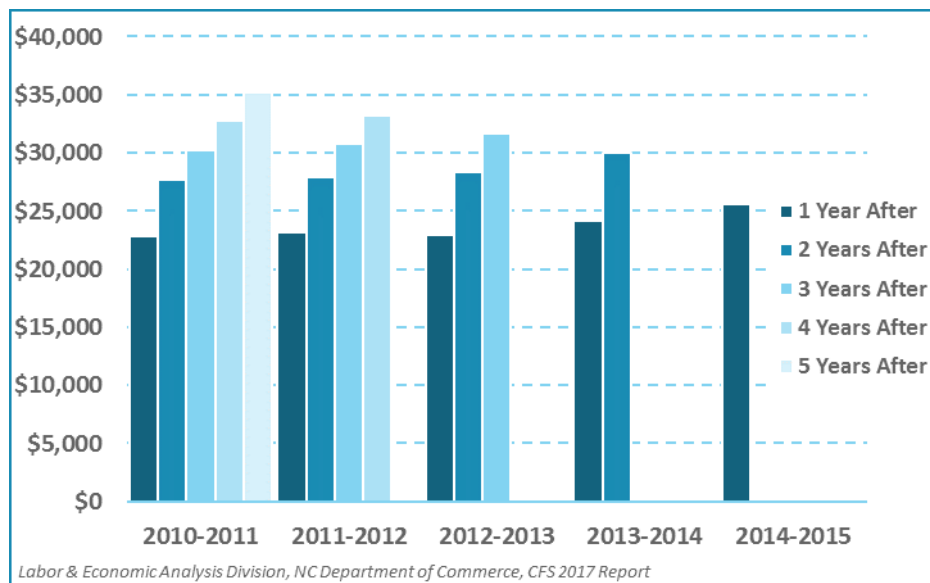
The rate of employment in North Carolina one year after graduation ranged from 80% to 83%, while the rate of subsequent enrollment in public higher education programs ranged from 31% to 35% (see Figure 30, Table 8). Both employment and subsequent enrollment one year after graduation fluctuated from cohort to cohort.

FIGURE 30.
Percentage of NCCCS CTE Associate Degree Completers Employed in North Carolina
After Degree Conferral, by Year of Graduation



Wage earnings at one year after graduation increased with each successive cohort (*Figure 31*). Median wage earnings increased from \$22,823 for the cohort graduating in 2010-2011 to \$25,612 for the cohort graduating in 2014-2015 (*Table 8*).

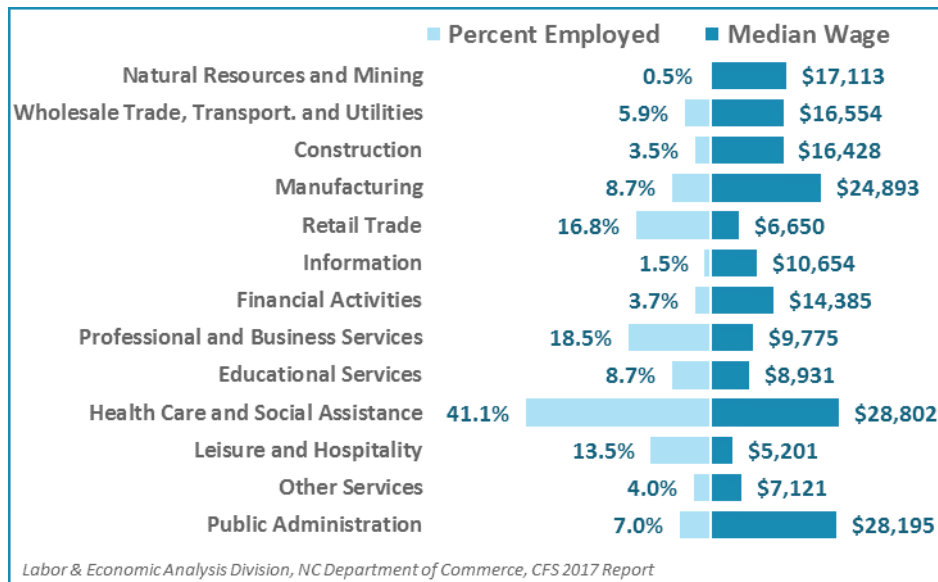
FIGURE 31.
Median Wage of NCCCS CTE Associate Degree Completers in North Carolina,
by Year of Graduation



In all cohorts examined here, the share of CTE associate degree recipients employed in North Carolina declined slightly; for instance, the employment rate for 2010-2011 graduates declined from 80% after one year to 76% after five years. Those who were employed in North Carolina saw their wages continue to increase in each year after graduation. These graduates were by far

most likely to be employed in the Health Care and Social Assistance sector, due in part to the large number of students graduating from health science programs; this was also one of the top-paying sectors for graduates across all cohorts (*Figure 32*).

FIGURE 32.
2014-2015 NCCCS CTE Associate Degree Completers One Year After Graduation:
Percentage Employed and Median Wage by Industry



The outcomes for CTE associate degree recipients varied by the program of study (*see Appendix Tables 1, 2, 3, and 4*). One year after graduation, the 2010-2011 cohort saw median wages ranging from \$15,633 for agricultural and natural resources technologies majors to \$33,321 for industrial technologies majors (*Appendix Table 1*). By the fifth year after graduation, industrial technologies majors earned a median wage of \$45,584. Health science majors earned the second-highest wage in the first (\$32,073) and fifth (\$44,874) years after graduation, and in all cohorts had the highest rate of employment within North Carolina. The employment rate within North Carolina for 2010-2011 NCCCS graduates earning an associate degree in the area of health sciences was 90% at year one and 83% in year five. This is consistent with the relatively higher employment rates and wages for associate degree recipients working in the Health Care and Social Assistance industry, as noted previously and shown above in Figure 32 for the most recent cohort (*also see Table 8*).

TABLE 8.

NCCCS CTE Associate Degree Participants and Completers, Outcomes One Through Five Years After Graduation, Overall and By Industry

North Carolina Community College System							Common Follow-up System: Evaluative Measures, 2017 Report									
Associate Degree																
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Students		123,339	121,949	120,923	117,526	111,059	123,339	121,949	120,923	117,526	123,339	121,949	120,923	123,339	121,949	123,339
Associate Degree Recipients		14,579	14,180	14,488	15,809	15,529	14,579	14,180	14,488	15,809	14,579	14,180	14,488	14,579	14,180	14,579
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Associate Degree Recipients Employed in North Carolina	N	11,701	11,735	11,888	12,703	12,885	11,601	11,578	11,762	12,576	11,405	11,404	11,546	11,261	11,201	11,107
	%	80%	83%	82%	80%	83%	80%	82%	81%	80%	78%	80%	80%	77%	79%	76%
Associate Degree Recipients' Wages in North Carolina	Mean	\$25,517	\$25,302	\$25,232	\$26,507	\$27,543	\$30,264	\$29,874	\$30,377	\$32,278	\$32,702	\$32,499	\$33,681	\$35,313	\$35,436	\$38,151
	Median	\$22,823	\$23,131	\$22,933	\$24,180	\$25,612	\$27,670	\$27,866	\$28,382	\$30,004	\$30,184	\$30,773	\$31,618	\$32,725	\$33,261	\$35,232
Graduates Enrolled in NC Public Higher Education	N	5,033	4,329	4,447	5,448	4,807	3,960	3,661	3,877	4,194	3,335	3,223	3,247	2,846	2,642	2,410
	%	35%	31%	31%	34%	31%	25%	26%	27%	27%	23%	23%	22%	20%	19%	17%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	7,009	6,172	6,097	6,983	6,267	5,254	4,861	5,138	5,313	4,393	4,318	4,266	3,858	3,696	3,290
	%	48%	44%	42%	44%	40%	36%	34%	35%	34%	30%	30%	29%	26%	26%	23%
Graduates Enrolled or Employed in NC	N	13,007	12,802	12,928	13,894	13,869	12,462	12,302	12,514	13,377	12,041	11,965	12,100	11,763	11,655	11,456
	%	89%	90%	89%	88%	89%	85%	87%	86%	85%	83%	84%	84%	81%	82%	79%
Graduates' Employment by Industry		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.4%	0.4%	0.4%	0.4%	0.5%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%
Wholesale Trade, Transport. and Utilities		5.3%	5.1%	5.3%	5.9%	5.9%	5.6%	5.0%	5.6%	5.9%	5.5%	5.2%	5.8%	5.7%	5.5%	5.8%
Construction		2.9%	2.5%	2.9%	3.4%	3.5%	2.6%	2.7%	3.1%	3.3%	2.7%	2.8%	3.1%	2.7%	2.7%	2.7%
Manufacturing		11.7%	9.1%	8.4%	8.8%	8.7%	12.4%	9.6%	9.1%	9.7%	12.6%	10.4%	9.7%	13.3%	11.0%	13.7%
Retail Trade		16.3%	16.7%	17.2%	17.2%	16.8%	12.8%	13.4%	14.2%	13.5%	11.8%	12.1%	12.3%	11.2%	11.2%	10.3%
Information		1.2%	1.2%	1.3%	1.3%	1.5%	1.2%	1.1%	1.6%	1.4%	1.2%	1.2%	1.6%	1.4%	1.2%	1.3%
Financial Activities		3.0%	3.3%	3.5%	3.5%	3.7%	3.4%	3.4%	3.5%	3.7%	3.5%	3.5%	3.7%	4.0%	3.4%	4.2%
Professional and Business Services		20.3%	20.0%	20.0%	20.0%	18.5%	17.5%	17.6%	18.1%	17.5%	16.7%	16.9%	16.8%	16.3%	16.0%	15.0%
Educational Services		9.6%	10.0%	9.2%	9.2%	8.7%	9.6%	10.0%	8.9%	8.9%	9.8%	10.4%	9.2%	9.8%	10.8%	9.9%
Health Care and Social Assistance		40.9%	42.1%	40.9%	40.9%	41.1%	40.7%	41.7%	40.9%	41.0%	40.8%	41.5%	41.1%	40.1%	40.6%	39.9%
Leisure and Hospitality		12.5%	12.6%	13.5%	14.3%	13.5%	9.0%	9.5%	10.3%	10.8%	8.2%	8.0%	8.7%	7.3%	7.4%	7.0%
Other Services		3.4%	3.0%	3.7%	3.4%	4.0%	2.9%	2.7%	3.2%	3.0%	2.8%	2.8%	3.1%	2.6%	2.7%	2.5%
Public Administration		6.5%	6.6%	7.1%	7.2%	7.0%	6.8%	7.5%	7.3%	7.7%	7.5%	8.0%	7.9%	8.0%	8.5%	8.2%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$5,647	\$8,871	\$9,986	\$11,075	\$17,113	\$5,850	\$14,978	\$12,880	\$14,806	\$6,919	\$20,499	\$15,633	\$12,798	\$15,918	\$23,295
Wholesale Trade, Transport. and Utilities		\$14,029	\$15,250	\$17,151	\$14,406	\$16,554	\$20,007	\$22,903	\$24,389	\$22,084	\$24,287	\$26,204	\$25,417	\$26,849	\$30,004	\$31,216
Construction		\$11,467	\$11,265	\$13,883	\$10,895	\$16,428	\$14,833	\$17,972	\$16,947	\$17,655	\$18,567	\$22,637	\$23,213	\$21,588	\$26,140	\$24,486
Manufacturing		\$25,216	\$24,018	\$22,260	\$25,008	\$24,893	\$33,050	\$30,199	\$30,296	\$32,527	\$36,187	\$34,211	\$34,418	\$38,720	\$36,088	\$41,240
Retail Trade		\$6,991	\$6,742	\$6,851	\$6,700	\$6,650	\$9,619	\$9,706	\$8,792	\$10,108	\$10,506	\$11,095	\$11,274	\$11,693	\$13,643	\$13,643
Information		\$12,747	\$9,224	\$18,764	\$14,625	\$10,654	\$20,413	\$22,383	\$23,417	\$19,540	\$23,654	\$25,624	\$28,178	\$21,177	\$29,989	\$28,690
Financial Activities		\$15,170	\$12,172	\$10,283	\$14,750	\$14,385	\$19,760	\$20,353	\$19,220	\$21,823	\$24,074	\$20,518	\$21,596	\$24,505	\$26,698	\$27,028
Professional and Business Services		\$8,635	\$9,868	\$8,746	\$9,700	\$9,775	\$11,961	\$12,649	\$11,490	\$13,210	\$13,250	\$14,441	\$14,749	\$14,048	\$16,794	\$16,107
Educational Services		\$7,692	\$8,853	\$8,725	\$8,337	\$8,931	\$12,151	\$15,187	\$13,460	\$11,275	\$13,917	\$17,714	\$16,599	\$16,631	\$19,859	\$19,093
Health Care and Social Assistance		\$26,098	\$26,526	\$26,212	\$25,860	\$28,802	\$32,401	\$32,543	\$33,008	\$33,891	\$34,175	\$33,152	\$34,691	\$35,373	\$35,662	\$37,239
Leisure and Hospitality		\$5,038	\$5,291	\$5,550	\$5,864	\$5,201	\$7,021	\$6,509	\$7,350	\$6,912	\$7,318	\$7,365	\$7,457	\$7,984	\$7,218	\$8,941
Other Services		\$6,723	\$7,667	\$7,024	\$7,203	\$7,121	\$10,963	\$10,500	\$9,694	\$10,585	\$13,139	\$11,311	\$12,393	\$14,935	\$9,834	\$20,130
Public Administration		\$23,057	\$25,593	\$24,979	\$28,228	\$28,195	\$29,517	\$30,574	\$32,619	\$33,388	\$30,768	\$32,764	\$34,605	\$32,816	\$35,046	\$35,175
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$12,011	\$13,243	\$18,109	\$13,227	\$17,712	\$13,910	\$15,462	\$21,450	\$16,682	\$15,243	\$16,502	\$20,413	\$17,136	\$18,526	\$21,323
Wholesale Trade, Transport. and Utilities		\$18,814	\$19,500	\$21,906	\$20,796	\$21,731	\$22,897	\$25,920	\$26,293	\$26,269	\$27,536	\$28,677	\$28,803	\$30,758	\$32,315	\$34,884
Construction		\$16,014	\$16,189	\$18,809	\$17,285	\$20,016	\$19,295	\$20,360	\$21,806	\$23,137	\$22,915	\$23,612	\$25,844	\$26,181	\$26,837	\$28,850
Manufacturing		\$29,260	\$26,177	\$26,296	\$28,267	\$28,057	\$34,741	\$31,869	\$31,929	\$34,625	\$39,051	\$35,823	\$36,059	\$42,115	\$37,872	\$44,252
Retail Trade		\$10,042	\$10,007	\$10,108	\$10,683	\$10,619	\$12,862	\$13,081	\$12,925	\$14,432	\$14,473	\$15,161	\$15,340	\$15,963	\$17,384	\$17,964
Information		\$18,150	\$17,175	\$21,103	\$22,151	\$19,866	\$24,151	\$24,599	\$25,016	\$26,840	\$27,873	\$28,142	\$28,038	\$28,419	\$32,399	\$33,637
Financial Activities		\$19,654	\$16,827	\$15,741	\$19,134	\$18,490	\$22,022	\$21,157	\$20,573	\$23,520	\$25,964	\$22,883	\$24,254	\$26,987	\$27,707	\$29,447
Professional and Business Services		\$13,407	\$14,243	\$13,449	\$14,920	\$14,855	\$16,733	\$17,193	\$16,985	\$18,770	\$18,492	\$19,553	\$20,340	\$20,207	\$22,498	\$22,654
Educational Services		\$11,988	\$13,410	\$13,079	\$13,245	\$13,410	\$15,153	\$17,136	\$16,666	\$15,998	\$16,752	\$18,766	\$18,421	\$18,755	\$20,689	\$20,531
Health Care and Social Assistance		\$26,840	\$27,031	\$26,729	\$26,777	\$29,236	\$32,743	\$32,319	\$32,561	\$33,813	\$33,813	\$33,216	\$34,971	\$35,422	\$35,793	\$37,796
Leisure and Hospitality		\$8,450	\$8,296	\$8,903	\$9,055	\$8,837	\$10,599	\$10,265	\$10,963	\$11,194	\$11,727	\$11,854	\$11,976	\$13,244	\$12,594	\$14,687
Other Services		\$11,743	\$11,874	\$11,012	\$11,415	\$12,167	\$15,891	\$14,216	\$13,975	\$14,559	\$17,375	\$14,481	\$16,099	\$19,834	\$16,348	\$22,128
Public Administration		\$24,310	\$25,815	\$25,194	\$27,719	\$28,135	\$28,441	\$28,790	\$30,839	\$32,241	\$30,350	\$31,608	\$33,056	\$32,552	\$34,245	\$34,699

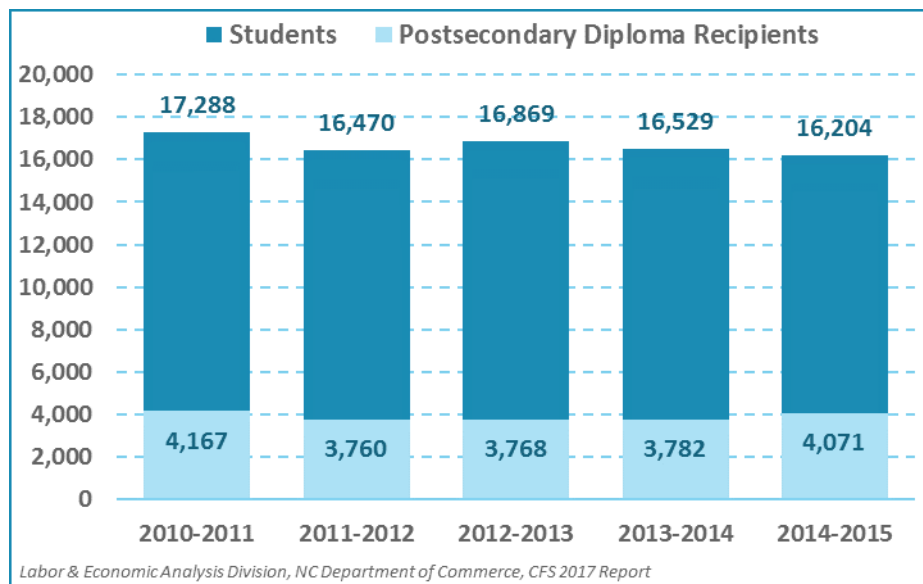
*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

CTE DIPLOMA PROGRAM OUTCOMES

As shown in Figure 33, participation in CTE diploma programs declined slightly throughout the period studied, with the number of students decreasing from 17,288 in the 2010-2011 program year to 16,204 in 2014-2015. Students who were recorded as having graduated from a diploma program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion.

The number of CTE diploma program completers fluctuated from year to year, ranging from 3,760 to 4,167.

FIGURE 33.
NCCCS CTE Diploma Program Participants and Completers by Program Year



The rate of employment in North Carolina one year after earning a CTE diploma ranged from 80% to 83% (see Figure 34, Table 9). The rate of subsequent enrollment in public higher education programs ranged from 35% to 37%, with both outcomes fluctuating from cohort to cohort (Table 9).

Wage earnings one year after graduation increased with each successive cohort (see Figure 35, Table 9). Median wage earnings increased from \$21,201 for the cohort graduating in 2010-2011 to \$23,349 for the 2014-2015 graduates.

FIGURE 34.
Percentage of NCCCS CTE Diploma Recipients Employed in North Carolina
After Completion, by Year of Graduation

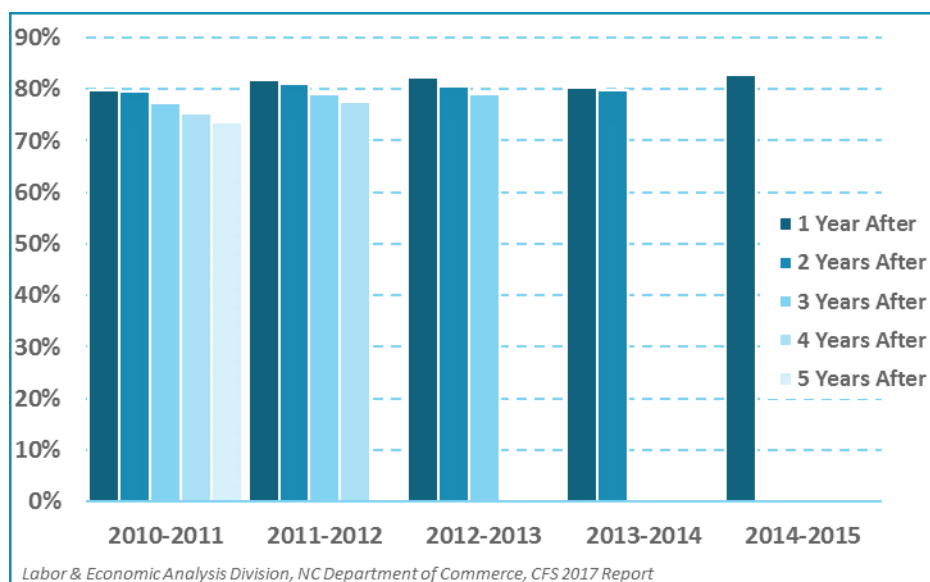
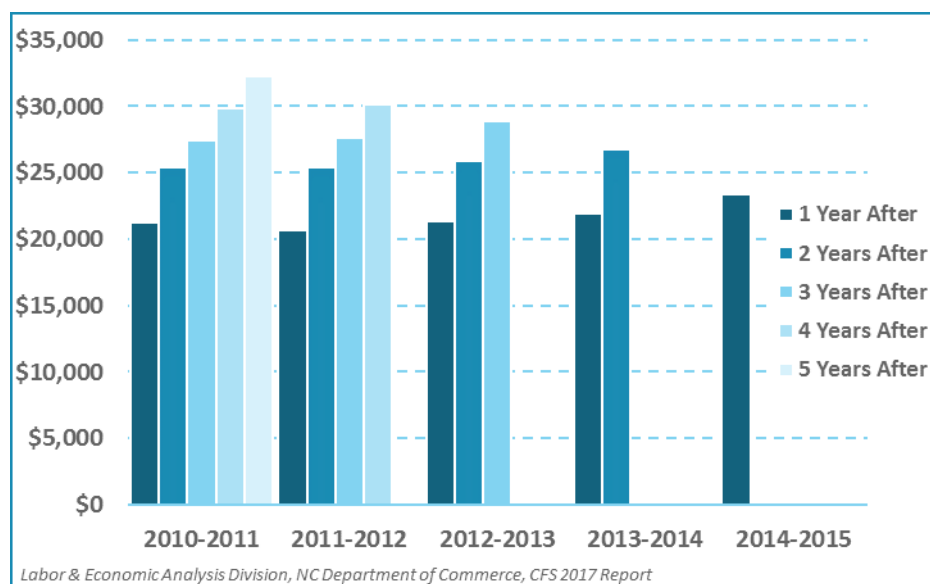


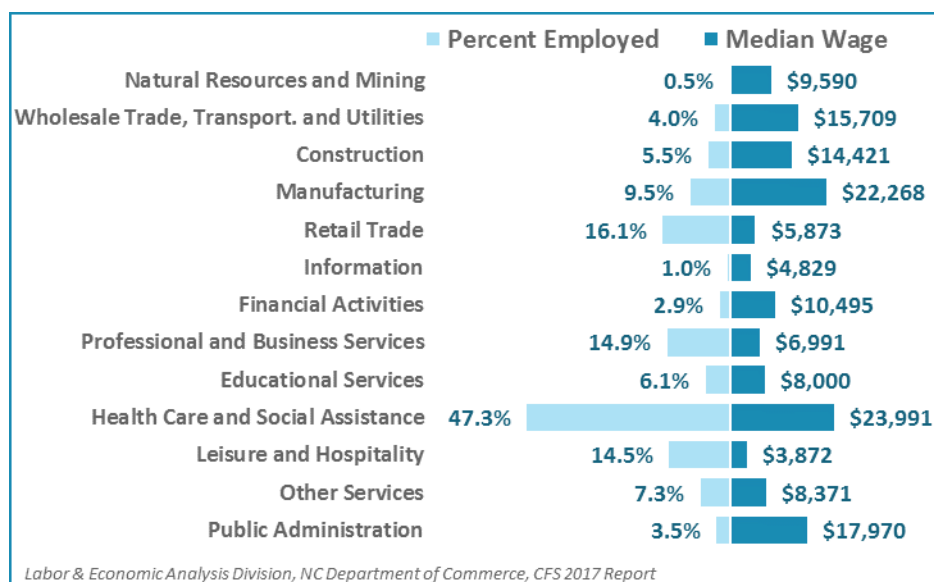
FIGURE 35.
Median Wage of NCCCS CTE Diploma Recipients in North Carolina,
by Year of Graduation



The share of CTE diploma recipients employed in North Carolina declined slightly over time. For instance, the employment rate for 2010-2011 graduates declined from 80% after one year to 74% after five years. Of those CTE Diploma recipients who were employed, wages continued to increase each year after graduation.

These graduates were by far most likely to be employed in the Health Care and Social Assistance sector (*Figure 36*), due in part to the large number of students graduating from health science programs. This was also one of the top-paying industries for graduates across all cohorts.

FIGURE 36.
2014-2015 NCCCS CTE Diploma Recipients One Year After Graduation:
Percentage Employed and Median Wage by Industry



The outcomes of CTE diploma recipients varied widely by the program of study (see *Appendix Tables 5, 6, 7, and 8*). In the first year after graduation, the 2010-2011 cohort saw median wages ranging from \$8,556 for commercial and artistic production technologies majors to \$24,589 for industrial technologies majors (*Appendix Table 5*). By the fifth year after graduation, engineering technologies majors earned a median wage of \$42,806, displacing industrial technologies (\$39,830) as the top-earning diploma program group. Health sciences was the second-highest earning major (\$24,491) one year after graduation and the fourth-highest (\$33,829) five years after graduation. For all cohorts, health sciences graduates also had the highest employment rate within North Carolina. For the 2010-2011 cohort, this was 91% at year one, and 81% at year five. This is consistent with the relatively higher employment rates and wages for CTE diploma recipients working in the Health Care and Social Assistance industry, as noted previously and shown above in Figure 36 for the most recent cohort (also see *Table 9*).

TABLE 9.

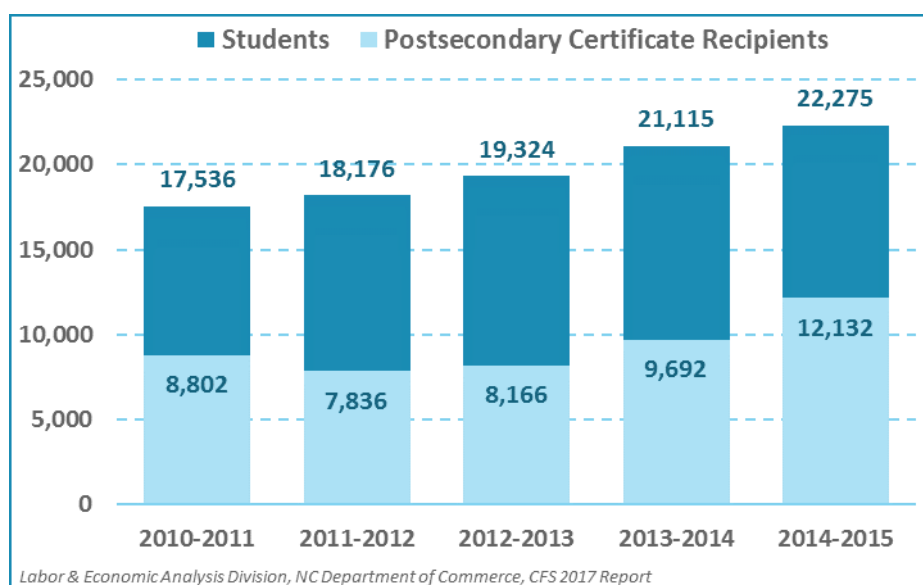
NCCCS CTE Diploma Program Participants and Completers, Outcomes One Through Five Years After Graduation, Overall and By Industry

North Carolina Community College System											Common Follow-up System: Evaluative Measures, 2017 Report										
Postsecondary Diploma																					
All Programs											Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011					
Students		17,288	16,470	16,869	16,529	16,204	17,288	16,470	16,869	16,529	17,288	16,470	16,869	17,288	16,470	17,288					
Postsecondary Diploma Recipients		4,167	3,760	3,768	3,782	4,071	4,167	3,760	3,768	3,782	4,167	3,760	3,768	4,167	3,760	4,167					
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After					
Postsecondary Diploma Recipients Employed in North Carolina	N	3,324	3,079	3,104	3,042	3,370	3,311	3,052	3,034	3,017	3,224	2,970	2,975	3,143	2,915	3,065					
	%	80%	82%	82%	80%	83%	79%	81%	81%	80%	77%	79%	79%	75%	78%	74%					
Postsecondary Diploma Recipients' Wages in North Carolina	Mean	\$22,535	\$21,753	\$22,026	\$23,153	\$23,815	\$25,995	\$25,378	\$26,117	\$27,360	\$28,239	\$27,860	\$29,350	\$31,016	\$30,730	\$33,701					
	Median	\$21,201	\$20,681	\$21,361	\$21,946	\$23,349	\$25,420	\$25,438	\$25,888	\$26,770	\$27,418	\$27,588	\$28,892	\$29,877	\$30,105	\$32,248					
Graduates Enrolled in NC Public Higher Education	N	1,518	1,384	1,376	1,400	1,427	1,084	977	1,003	959	918	773	808	771	658	673					
	%	36%	37%	37%	37%	35%	26%	26%	27%	25%	22%	21%	21%	19%	18%	16%					
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	2,083	1,787	1,745	1,744	1,756	1,472	1,295	1,300	1,226	1,237	1,090	1,070	1,090	912	934					
	%	50%	48%	46%	46%	43%	35%	34%	35%	32%	30%	29%	28%	26%	24%	22%					
Graduates Enrolled or Employed in NC	N	3,742	3,401	3,399	3,386	3,645	3,561	3,243	3,223	3,185	3,417	3,106	3,106	3,282	3,018	3,197					
	%	90%	90%	90%	90%	90%	85%	86%	86%	84%	82%	83%	82%	79%	80%	77%					
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After					
Natural Resources and Mining		0.4%	0.4%	0.5%	*	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	*	0.4%	0.3%					
Wholesale Trade, Transport, and Utilities		3.9%	3.9%	3.6%	4.1%	4.0%	4.0%	3.7%	3.8%	3.9%	3.8%	4.3%	4.2%	4.0%	4.9%	4.0%					
Construction		5.5%	5.0%	4.9%	5.5%	5.5%	4.9%	4.7%	5.2%	4.7%	4.7%	4.9%	5.1%	4.8%	5.0%	4.9%					
Manufacturing		13.9%	9.4%	7.5%	10.2%	9.5%	14.9%	9.6%	8.0%	9.8%	16.7%	11.0%	8.5%	17.7%	11.4%	17.8%					
Retail Trade		14.8%	15.5%	15.6%	16.7%	16.1%	12.1%	13.1%	11.9%	12.6%	10.5%	10.9%	11.0%	9.7%	10.5%	9.2%					
Information		1.0%	0.6%	0.6%	0.8%	1.0%	0.9%	0.4%	0.9%	0.8%	0.8%	0.6%	0.8%	0.8%	0.8%	0.7%					
Financial Activities		2.3%	3.2%	2.9%	2.7%	2.9%	2.7%	2.8%	2.8%	3.1%	2.9%	3.1%	2.8%	2.9%	3.3%	3.0%					
Professional and Business Services		18.5%	17.5%	17.7%	16.8%	14.9%	15.6%	15.6%	15.5%	14.3%	14.3%	14.2%	12.9%	12.8%	11.4%	12.0%					
Educational Services		5.6%	6.2%	6.3%	5.3%	6.1%	5.5%	6.4%	5.6%	5.0%	5.9%	6.5%	5.7%	5.9%	6.5%	6.4%					
Health Care and Social Assistance		45.8%	47.8%	49.9%	47.2%	47.3%	43.6%	48.0%	50.3%	47.9%	43.0%	48.8%	51.1%	42.4%	48.3%	43.0%					
Leisure and Hospitality		11.7%	12.0%	12.6%	13.5%	14.5%	9.0%	9.1%	8.7%	9.6%	7.5%	7.3%	8.1%	6.4%	6.5%	6.2%					
Other Services		7.8%	7.8%	7.4%	8.1%	7.3%	7.1%	7.3%	7.0%	7.6%	6.8%	6.6%	6.2%	6.4%	5.5%	6.0%					
Public Administration		2.9%	2.8%	3.4%	3.2%	3.5%	3.4%	3.0%	3.7%	3.0%	3.8%	3.3%	3.9%	4.2%	3.8%	4.1%					
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After					
Natural Resources and Mining		\$8,382	\$1,740	\$5,400	*	\$9,590	\$10,267	\$6,131	\$9,878	\$8,231	\$13,523	\$9,964	\$6,160	*	\$4,311	\$17,545					
Wholesale Trade, Transport, and Utilities		\$10,800	\$9,475	\$12,573	\$14,220	\$15,709	\$16,596	\$20,195	\$18,479	\$19,985	\$20,075	\$21,430	\$26,067	\$24,729	\$23,982	\$30,192					
Construction		\$15,179	\$11,057	\$14,548	\$14,914	\$14,421	\$20,932	\$18,865	\$17,827	\$18,225	\$23,470	\$23,003	\$22,371	\$23,872	\$26,141	\$23,463					
Manufacturing		\$24,210	\$19,828	\$21,065	\$20,875	\$22,268	\$31,767	\$27,996	\$27,581	\$31,744	\$33,876	\$29,876	\$32,159	\$37,261	\$35,183	\$39,300					
Retail Trade		\$5,681	\$5,826	\$5,658	\$5,708	\$5,873	\$7,336	\$7,748	\$8,245	\$8,695	\$9,633	\$10,674	\$8,836	\$10,794	\$12,248	\$11,740					
Information		\$8,950	\$6,722	\$6,757	\$12,556	\$4,829	\$8,086	\$14,448	\$20,556	\$16,368	\$22,868	\$11,812	\$30,742	\$25,890	\$12,486	\$36,133					
Financial Activities		\$14,222	\$6,356	\$5,743	\$12,283	\$10,495	\$12,700	\$14,628	\$11,969	\$8,508	\$14,546	\$13,429	\$16,476	\$17,102	\$15,080	\$26,215					
Professional and Business Services		\$5,857	\$5,920	\$5,533	\$6,167	\$6,991	\$6,375	\$7,538	\$7,979	\$9,164	\$7,481	\$8,600	\$10,957	\$8,592	\$11,383	\$10,284					
Educational Services		\$5,981	\$6,169	\$8,811	\$7,641	\$8,000	\$9,629	\$9,020	\$16,065	\$14,650	\$12,260	\$12,385	\$18,496	\$15,740	\$13,233	\$18,105					
Health Care and Social Assistance		\$22,109	\$22,649	\$22,101	\$23,308	\$23,991	\$26,492	\$26,598	\$26,952	\$27,200	\$27,680	\$27,628	\$29,094	\$29,501	\$30,002	\$31,695					
Leisure and Hospitality		\$3,646	\$4,817	\$3,821	\$4,276	\$3,872	\$5,660	\$4,839	\$5,435	\$6,015	\$5,238	\$5,972	\$4,967	\$6,085	\$6,896	\$5,527					
Other Services		\$7,730	\$8,351	\$8,534	\$8,521	\$8,371	\$10,777	\$13,554	\$10,522	\$12,359	\$15,237	\$14,158	\$12,522	\$14,498	\$17,760	\$21,355					
Public Administration		\$17,485	\$22,771	\$21,662	\$14,950	\$17,970	\$23,076	\$23,389	\$26,843	\$31,691	\$26,511	\$25,892	\$29,146	\$27,763	\$30,683	\$29,706					
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After					
Natural Resources and Mining		\$16,473	\$4,514	\$9,332	*	\$19,091	\$15,450	\$9,627	\$18,655	\$16,744	\$17,253	\$13,146	\$21,928	*	\$13,093	\$21,833					
Wholesale Trade, Transport, and Utilities		\$16,807	\$13,115	\$17,201	\$18,656	\$19,010	\$18,964	\$21,166	\$22,082	\$23,532	\$21,918	\$24,387	\$26,600	\$25,742	\$26,952	\$30,009					
Construction		\$17,452	\$14,778	\$16,327	\$16,552	\$19,146	\$21,654	\$19,975	\$20,920	\$19,479	\$23,735	\$23,218	\$24,590	\$25,532	\$27,005	\$26,305					
Manufacturing		\$27,438	\$22,445	\$22,395	\$25,903	\$25,732	\$33,033	\$29,680	\$27,595	\$32,846	\$34,945	\$32,481	\$32,550	\$38,829	\$35,502	\$40,539					
Retail Trade		\$8,184	\$8,513	\$8,030	\$8,688	\$9,237	\$10,740	\$10,701	\$10,656	\$12,539	\$12,396	\$14,111	\$12,408	\$14,000	\$15,145	\$15,415					
Information		\$18,794	\$9,049	\$13,615	\$21,540	\$16,205	\$19,019	\$14,021	\$20,609	\$24,793	\$25,329	\$15,085	\$25,121	\$28,387	\$20,639	\$31,408					
Financial Activities		\$18,021	\$11,263	\$12,283	\$15,862	\$15,256	\$18,299	\$17,873	\$15,423	\$16,038	\$19,313	\$16,945	\$19,464	\$21,613	\$19,598	\$25,818					
Professional and Business Services		\$9,380	\$10,414	\$9,945	\$10,231	\$11,596	\$11,512	\$13,449	\$13,649	\$14,744	\$13,222	\$14,176	\$16,354	\$14,949	\$17,349	\$16,870					
Educational Services		\$11,236	\$10,978	\$12,190	\$12,685	\$12,000	\$14,728	\$13,232	\$16,056	\$17,144	\$16,263	\$15,627	\$19,091	\$18,740	\$17,487	\$19,738					
Health Care and Social Assistance		\$21,577	\$22,211	\$21,797	\$22,293	\$22,985	\$25,266	\$25,171	\$25,500	\$26,243	\$26,831	\$26,712	\$28,286	\$29,267	\$29,638	\$31,638					
Leisure and Hospitality		\$6,486	\$6,918	\$6,757	\$7,714	\$6,780	\$8,566	\$7,761	\$9,073	\$10,315	\$8,966	\$9,625	\$9,463	\$10,325	\$10,866	\$11,124					
Other Services		\$11,147	\$12,052	\$11,673	\$12,317	\$11,968	\$14,889	\$16,630	\$14,586	\$16,240	\$17,298	\$17,501	\$17,107	\$19,416	\$20,321	\$22,846					
Public Administration		\$20,856	\$22,305	\$22,340	\$19,494	\$22,168	\$22,655	\$24,541	\$26,596	\$30,741	\$26,489	\$26,724	\$28,534	\$26,853	\$29,466	\$30,226					

CTE CERTIFICATE PROGRAM OUTCOMES

As shown in Figure 37, participation in CTE certificate programs increased steadily throughout the period studied, with the number of students growing from 17,536 in the 2010-2011 program year to 22,275 in 2014-2015. Students who were recorded as having graduated from a certificate program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion. The number of CTE certificate program completers also increased over time.

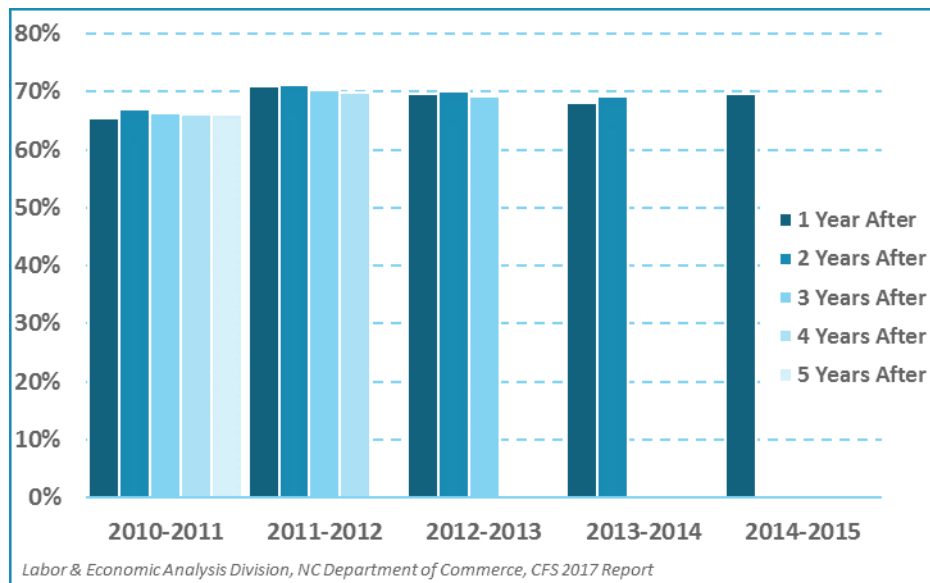
FIGURE 37.
NCCCS CTE Certificate Program Participants and Completers by Program Year



The rate of employment in North Carolina one year after graduation ranged from 65% to 71%, while the rate of subsequent enrollment in public higher education programs ranged from 50% to 52% (see Figure 38, Table 10). Both outcomes fluctuated from cohort to cohort, showing no clear trend.

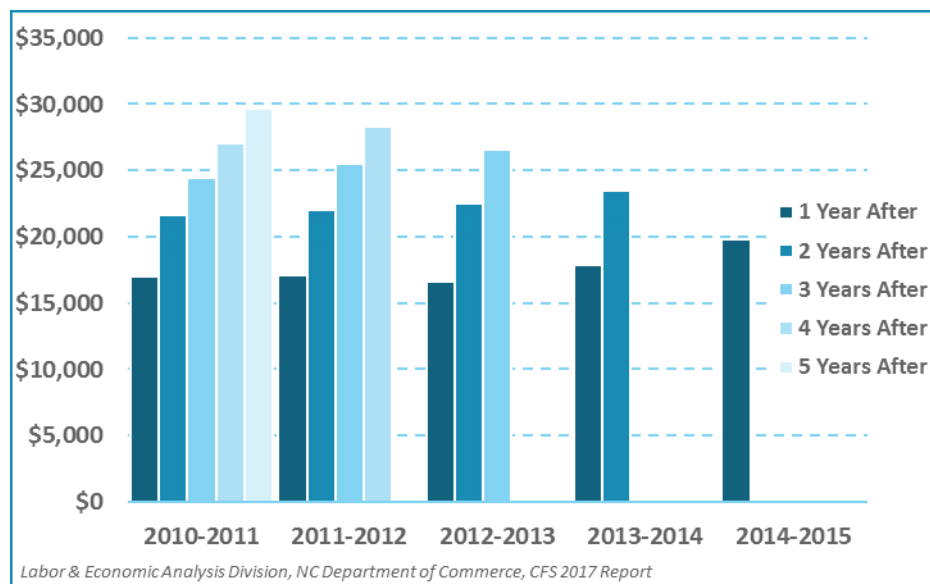
The share of CTE certificate recipients employed in North Carolina remained relatively stable over time for each graduating cohort. For instance, the employment rate for 2010-2011 graduates increased slightly from 65% after one year to 66% after five years (Figure 38, Table 10).

FIGURE 38.
Percentage of NCCCS CTE Certificate Recipients Employed in North Carolina
After Completion, by Year of Graduation



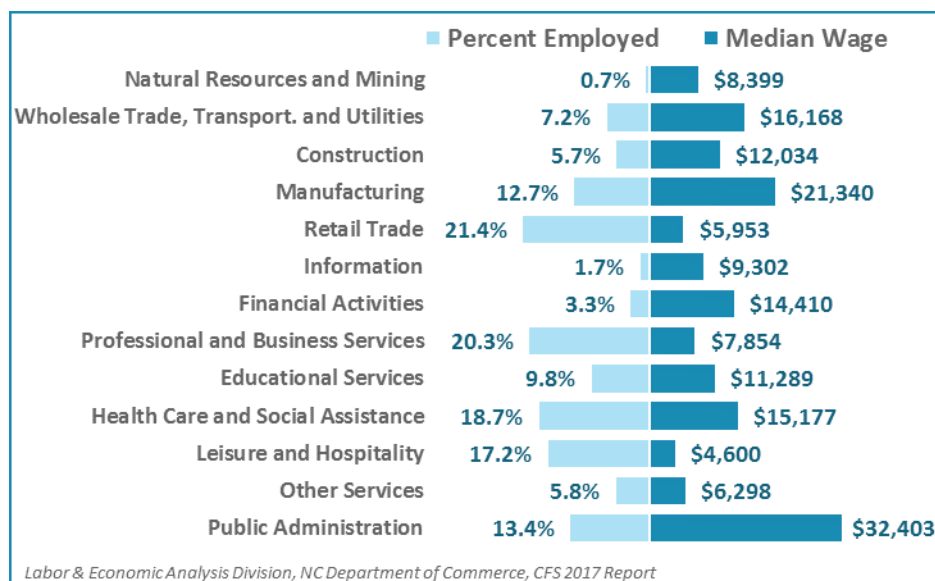
Wage earnings one year after graduation increased for each successive cohort, with median wage earnings increasing from \$17,013 for the cohort graduating in 2010-2011 to \$19,781 for the 2014-2015 graduates (see Figure 39, Table 10). CTE certificate recipients employed in North Carolina saw their wages increase in each year after graduation for all years examined in this report (Figure 39, Table 10).

FIGURE 39.
Median Wage of NCCCS CTE Certificate Recipients in North Carolina,
by Year of Graduation



For the most recent cohort included in this report (2014-2015), CTE certificate recipients' top three industries of employment one year after graduation were Retail Trade, Professional and Business Services, and Health Care and Social Assistance (*Figure 40*). Jobs in Retail Trade and Professional and Business Services (an industry that includes temporary help agencies) offered among the lowest wages of any sector in each year after graduation. By the fifth year after graduation, however, the relatively higher-paying Manufacturing sector displaced Retail Trade as one of the top three sectors employing CTE certificate recipients.

FIGURE 40.
2014-2015 NCCCS CTE Certificate Recipients One Year After Graduation:
Percentage Employed and Median Wage by Industry



The outcomes of CTE certificate recipients varied by the program of study (*Appendix Tables 9, 10, 11, and 12*). The 2010-2011 cohort saw one-year post-graduation median wages ranging from \$13,064 for agricultural and natural resources technologies majors to \$24,589 for biological and chemical technologies majors. By the fifth year after graduation, biological and chemical technologies remained the top-earning program group, yielding a median wage of \$39,850. However, this was the smallest program group in the 2010-2011 cohort, with only 30 graduates.

TABLE 10.

NCCCS CTE Certificate Program Participants and Completers, Outcomes One Through Five Years After Graduation, Overall and By Industry

North Carolina Community College System							Common Follow-up System: Evaluative Measures, 2017 Report									
Postsecondary Certificate																
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Students		17,536	18,176	19,324	21,115	22,275	17,536	18,176	19,324	21,115	17,536	18,176	19,324	17,536	18,176	17,536
Postsecondary Certificate Recipients		8,802	7,836	8,166	9,692	12,132	8,802	7,836	8,166	9,692	8,802	7,836	8,166	8,802	7,836	8,802
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Postsecondary Certificate Recipients Employed in North Carolina	N	5,756	5,565	5,679	6,593	8,440	5,896	5,579	5,726	6,714	5,833	5,511	5,656	5,811	5,467	5,811
	%	65%	71%	70%	68%	70%	67%	71%	70%	69%	66%	70%	69%	66%	70%	66%
Postsecondary Certificate Recipients' Wages in North Carolina	Mean	\$20,526	\$20,846	\$20,690	\$21,868	\$23,805	\$24,411	\$25,245	\$25,511	\$26,406	\$27,016	\$28,509	\$29,164	\$30,067	\$31,086	\$32,153
	Median	\$17,013	\$17,101	\$16,608	\$17,882	\$19,781	\$21,611	\$22,043	\$22,463	\$23,447	\$24,394	\$25,457	\$26,567	\$27,078	\$28,255	\$29,682
Graduates Enrolled in NC Public Higher Education	N	4,557	4,073	4,251	5,315	6,086	3,173	2,792	2,931	3,408	2,499	2,224	2,292	2,070	1,736	1,777
	%	52%	52%	52%	55%	50%	36%	36%	36%	35%	28%	28%	28%	24%	22%	20%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	5,519	4,768	4,847	5,970	6,823	4,051	3,419	3,626	4,208	3,269	2,915	2,938	2,812	2,398	2,504
	%	63%	61%	59%	62%	56%	46%	44%	44%	43%	37%	37%	36%	32%	31%	28%
Graduates Enrolled or Employed in NC	N	7,387	6,681	6,872	8,160	10,023	6,854	6,235	6,399	7,555	6,555	5,977	6,158	6,366	5,797	6,262
	%	84%	85%	84%	84%	83%	78%	80%	78%	78%	74%	76%	75%	72%	74%	71%
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.6%	0.6%	0.6%	0.7%	0.7%	0.7%	0.6%	0.6%	0.5%	0.8%	0.7%	0.5%	0.8%	0.7%	0.8%
Wholesale Trade, Transport. and Utilities		6.8%	7.3%	7.1%	7.2%	7.2%	6.8%	7.9%	7.1%	7.4%	6.9%	8.5%	7.4%	7.2%	8.6%	7.8%
Construction		5.7%	5.3%	5.7%	5.5%	5.7%	5.5%	5.8%	5.8%	5.7%	5.6%	6.0%	5.7%	5.9%	5.8%	6.1%
Manufacturing		14.5%	10.9%	10.3%	11.6%	12.7%	15.8%	11.7%	12.0%	13.3%	16.8%	12.8%	12.9%	17.3%	12.9%	18.0%
Retail Trade		18.7%	19.5%	21.4%	21.4%	21.4%	16.6%	17.0%	18.1%	18.3%	15.6%	15.7%	15.5%	14.6%	15.5%	13.6%
Information		1.2%	1.3%	1.4%	1.7%	1.7%	1.4%	1.5%	1.8%	1.6%	1.2%	1.8%	2.0%	1.2%	1.7%	1.2%
Financial Activities		3.1%	3.7%	3.1%	3.7%	3.3%	3.7%	3.8%	3.3%	3.8%	4.1%	3.5%	3.9%	4.1%	4.0%	4.1%
Professional and Business Services		22.5%	22.5%	23.1%	22.3%	20.3%	20.6%	21.3%	20.8%	20.1%	19.3%	20.2%	19.4%	19.0%	19.0%	17.9%
Educational Services		9.7%	9.9%	9.8%	10.3%	9.8%	9.8%	10.4%	9.4%	9.9%	10.0%	10.6%	9.7%	9.8%	10.8%	9.4%
Health Care and Social Assistance		20.4%	21.4%	19.8%	18.6%	18.7%	20.0%	21.3%	20.0%	19.0%	20.0%	20.8%	20.2%	19.3%	20.9%	19.6%
Leisure and Hospitality		13.8%	15.8%	16.2%	16.8%	17.2%	11.7%	12.9%	12.5%	14.1%	10.9%	11.1%	11.2%	10.1%	10.1%	9.6%
Other Services		5.7%	5.3%	5.8%	6.0%	5.8%	5.0%	5.3%	5.4%	5.4%	4.8%	4.8%	4.7%	4.5%	4.6%	4.4%
Public Administration		13.2%	12.5%	13.8%	12.7%	13.4%	13.7%	13.3%	14.4%	13.2%	13.6%	13.6%	15.1%	13.8%	13.7%	13.8%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$5,866	\$5,945	\$6,568	\$6,933	\$8,399	\$8,912	\$12,829	\$12,445	\$18,972	\$16,250	\$15,712	\$14,338	\$12,892	\$13,164	\$12,514
Wholesale Trade, Transport. and Utilities		\$13,248	\$13,313	\$13,228	\$13,024	\$16,168	\$17,821	\$21,522	\$19,658	\$18,751	\$23,142	\$23,260	\$22,547	\$25,079	\$29,285	\$26,346
Construction		\$9,048	\$12,442	\$10,370	\$11,254	\$12,034	\$10,425	\$15,522	\$18,792	\$17,392	\$14,881	\$19,345	\$21,659	\$19,018	\$25,172	\$20,599
Manufacturing		\$21,200	\$19,021	\$19,186	\$20,753	\$21,340	\$28,485	\$25,735	\$26,067	\$28,140	\$30,278	\$29,831	\$31,573	\$34,286	\$32,671	\$36,094
Retail Trade		\$6,094	\$6,125	\$5,745	\$5,642	\$5,953	\$8,010	\$6,723	\$7,471	\$7,243	\$8,758	\$8,415	\$8,131	\$9,635	\$9,474	\$10,355
Information		\$11,476	\$10,426	\$15,358	\$13,204	\$9,302	\$18,263	\$26,957	\$22,349	\$20,876	\$26,600	\$22,432	\$22,218	\$23,013	\$29,045	\$30,399
Financial Activities		\$13,637	\$15,081	\$12,493	\$7,822	\$14,410	\$16,533	\$20,124	\$15,349	\$17,216	\$18,895	\$24,300	\$18,995	\$20,261	\$23,974	\$24,291
Professional and Business Services		\$6,684	\$7,850	\$6,519	\$7,590	\$7,854	\$8,093	\$8,900	\$8,775	\$9,515	\$8,018	\$10,757	\$12,053	\$9,081	\$11,827	\$10,179
Educational Services		\$6,680	\$8,511	\$8,781	\$7,241	\$11,289	\$10,748	\$12,109	\$12,901	\$10,549	\$14,170	\$15,909	\$16,261	\$16,341	\$18,057	\$19,373
Health Care and Social Assistance		\$13,498	\$14,618	\$13,179	\$13,786	\$15,177	\$17,065	\$17,474	\$17,361	\$17,454	\$18,913	\$19,609	\$19,724	\$21,888	\$20,835	\$22,949
Leisure and Hospitality		\$3,972	\$4,489	\$4,790	\$4,728	\$4,600	\$4,175	\$4,547	\$5,928	\$4,594	\$4,739	\$6,166	\$5,919	\$5,239	\$5,928	\$5,527
Other Services		\$6,300	\$7,605	\$6,053	\$6,832	\$6,298	\$8,075	\$8,582	\$8,669	\$9,370	\$11,874	\$10,916	\$13,200	\$11,725	\$11,792	\$11,044
Public Administration		\$26,923	\$27,118	\$28,216	\$28,397	\$32,403	\$32,993	\$33,517	\$34,941	\$34,653	\$34,789	\$35,419	\$36,721	\$36,429	\$36,908	\$37,870
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$14,324	\$12,217	\$12,494	\$12,874	\$16,538	\$16,700	\$15,954	\$16,785	\$22,326	\$17,927	\$16,595	\$18,224	\$19,847	\$16,301	\$19,184
Wholesale Trade, Transport. and Utilities		\$17,776	\$19,625	\$21,223	\$18,976	\$21,120	\$21,639	\$26,120	\$25,280	\$23,940	\$25,363	\$28,986	\$29,461	\$29,026	\$34,052	\$31,213
Construction		\$14,770	\$17,604	\$16,116	\$15,504	\$18,520	\$16,469	\$21,439	\$22,553	\$21,256	\$18,528	\$25,125	\$25,961	\$22,874	\$29,291	\$25,310
Manufacturing		\$26,689	\$23,674	\$24,218	\$25,719	\$27,468	\$32,270	\$29,196	\$29,622	\$30,429	\$34,595	\$32,424	\$34,815	\$39,060	\$34,793	\$39,893
Retail Trade		\$9,392	\$9,056	\$9,249	\$9,479	\$10,104	\$11,645	\$11,314	\$11,667	\$12,528	\$13,011	\$13,143	\$13,295	\$14,306	\$14,302	\$15,594
Information		\$18,733	\$21,138	\$21,218	\$21,519	\$18,671	\$21,422	\$26,667	\$25,489	\$24,904	\$26,181	\$26,758	\$26,090	\$26,685	\$31,389	\$31,012
Financial Activities		\$17,092	\$19,390	\$17,121	\$23,756	\$18,848	\$18,533	\$22,762	\$19,290	\$21,822	\$20,872	\$25,587	\$21,310	\$23,140	\$26,531	\$25,852
Professional and Business Services		\$11,129	\$13,043	\$11,533	\$13,679	\$13,644	\$13,993	\$15,624	\$15,109	\$17,207	\$15,153	\$18,022	\$18,019	\$17,014	\$19,914	\$18,738
Educational Services		\$12,326	\$14,037	\$13,501	\$12,587	\$16,317	\$15,186	\$16,937	\$17,175	\$16,019	\$17,168	\$19,447	\$19,510	\$18,658	\$21,165	\$20,738
Health Care and Social Assistance		\$15,622	\$16,762	\$16,331	\$16,540	\$17,613	\$18,353	\$19,062	\$19,143	\$19,984	\$19,988	\$21,021	\$21,546	\$22,785	\$23,033	\$24,855
Leisure and Hospitality		\$6,814	\$7,242	\$7,351	\$8,113	\$8,230	\$7,719	\$8,281	\$9,279	\$9,214	\$8,300	\$10,100	\$10,281	\$8,837	\$10,993	\$9,853
Other Services		\$9,755	\$10,347	\$8,998	\$10,271	\$10,834	\$12,073	\$12,547	\$11,665	\$14,250	\$13,855	\$15,077	\$16,011	\$14,847	\$16,197	\$15,726
Public Administration		\$25,866	\$26,112	\$26,891	\$27,358	\$32,400	\$30,009	\$30,438	\$32,820	\$32,273	\$33,216	\$33,270	\$34,701	\$35,136	\$35,134	\$36,140

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

SUMMARY AND RECOMMENDATIONS

The outcomes of CTE program graduates were generally positive. CTE associate degree, diploma, and certificate recipients have seen their wages increase in each year after graduation, and each cohort tended to earn more in each year than the prior cohort.

The number of participants in CTE associate degree and diploma programs decreased notably over time, declining 10% and 6% respectively between the 2010-2011 and 2014-2015 program years, while the number of participants in CTE certificate programs increased over time. It is possible that the decline over time in associate degree and diploma program enrollment is related to the tightening labor market, with more individuals choosing to pursue employment opportunities immediately rather than taking a year or more to upgrade their education and skills.

It is recommended that NCCCS continue to follow trends in program participation, and consider CTE enrollment trends within the context of service integration in the workforce system. It may be useful to examine the interrelationship between services and referrals provided under WIA/WIOA programs and subsequent enrollment in community college CTE programs.

CTE associate degree programs in particular showed a wide gap between the number of students participating each year and the much smaller number of students graduating each year. This may reflect in part the large number of students who attend associate degree programs part time and thus have a long time to completion. Additionally, given the current tight labor market, it may be that greater numbers of community college program participants are being hired prior to receiving their credential as the economy improves and employers struggle to find qualified talent.

Although this report examines only outcomes of program completers, it is possible that students who complete some coursework but do not attain credentials have an advantage in the labor market over those who take no coursework at all. Recent enhancements to the CFS have led to the expansion of information regarding student course taking and time to completion. One potentially fruitful area in which NCCCS might consider follow-up research is on the outcomes of students with various levels of program completion—e.g., one semester vs. two semesters, in full-time equivalent units—to provide a more complete picture of the outcomes of NCCCS CTE students and the relative advantages of enrolling in vs. completing a community college program.

CONTINUING EDUCATION

Continuing education programs operated by the North Carolina Community Colleges include non-credit courses related to a diverse set of occupation-specific training, workforce development training, community service training, and business and industry training programs. Courses are designed to assist individuals in gaining short-term training and skill enhancement including occupational skills, entrepreneurial skills, personal growth, and development. Organized within the North Carolina Community College System's continuing education programs are several programmatic areas including Workforce Continuing Education training and Human Resources Development.

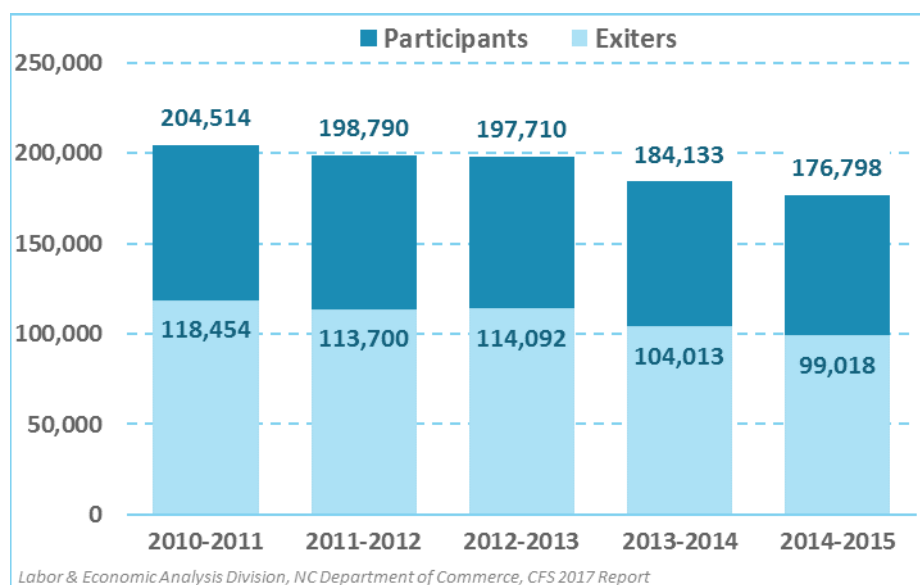
OVERVIEW OF WORKFORCE CONTINUING EDUCATION PROGRAMS

Workforce Continuing Education training programs provide a variety of non-credit courses organized under several topical areas. These areas include: agricultural and natural resources; business and computer training; construction; education and language; health; industrial/manufacturing; public safety; transport technology; and service occupations. Workforce Continuing Education programs consist of one or more courses designed to train an individual for full- or part-time employment, upgrade the skills of incumbent workers, or retrain individuals for new employment in a different occupation or industry. Course and program offerings provide instruction focused on skill competencies that may lead to a recognized credential (licensure, certification, renewal, registry listing) and/or meet local workforce needs.

WORKFORCE CONTINUING EDUCATION PROGRAM OUTCOMES

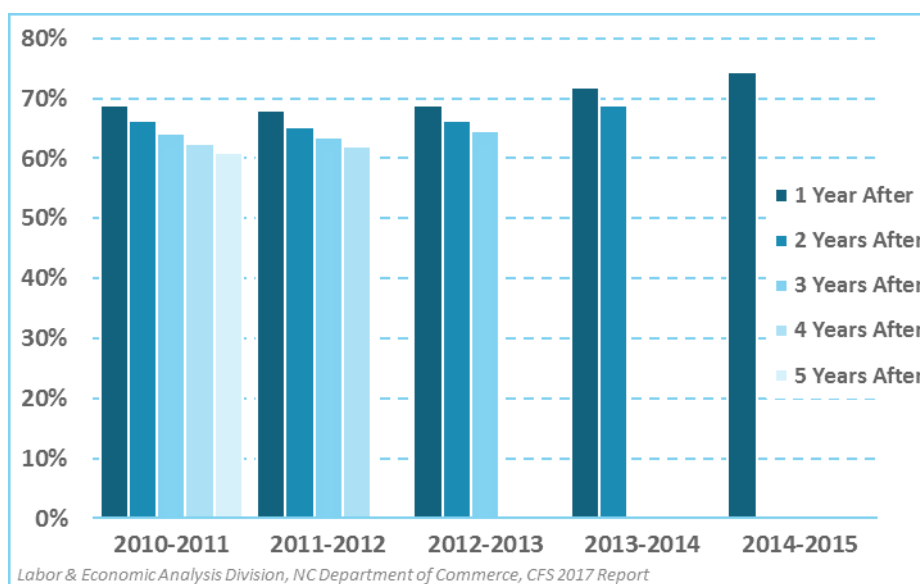
Analyses revealed a decline in the number of Workforce Continuing Education participants across the program years (*Figure 41, Table 11*). Enrollment in these programs was at a five-year high of 204,514 during the 2010-2011 program year and declined slowly each year to 176,798 in 2014-2015. Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit. The number of exiters across this time period reflected a similar decline across the five-year time period. These declines are partially attributed to changes in economic conditions as well as to changes in course offerings.

FIGURE 41.
NCCCS Workforce Continuing Education Program Participants and Exiters by Program Year



Employment and wage outcomes were derived for each cohort of Workforce Continuing Education program year exiters for up to five years after exit. As shown in Figure 42, one-year post-exit employment rates for Workforce Continuing Education program participants were fairly stable across the five years, ranging from 68% for the 2011-2012 program year exiters to a high of 74% for the 2014-2015 program year exiters. When considering a longer time horizon, this percentage showed a slight decline. For example, four-year post-exit employment rates declined to 63% and 62% for the 2010-2011 and 2011-2012 program year exiters, respectively. And after five years, 61% of completers remained employed in North Carolina, as indicated by the 2010-2011 program year cohort outcomes.

FIGURE 42.
Percentage of NCCCS Workforce Continuing Education Program Exiters Employed in North Carolina, by Year of Exit



One-year post-exit median wages ranged from a low of \$23,320 for the 2012-2013 program year exiters to a high of \$26,760 for the 2014-2015 program year exiters (*Figure 43*). When examining cohort wage outcomes over time, median post-exit earnings exhibited steady progress for all Workforce Continuing Education exiters. The analyses show that, on average across cohorts, program exiters experienced a 8.5% annual increase in their median wages each year post exit. For the 2010-2011 program year cohort, median wages rose each year, from \$24,664 in their first year after completion to \$32,391 in year five.

FIGURE 43.
*Median Wage of NCCCS Workforce Continuing Education Program Exiters
in North Carolina, by Year of Exit*

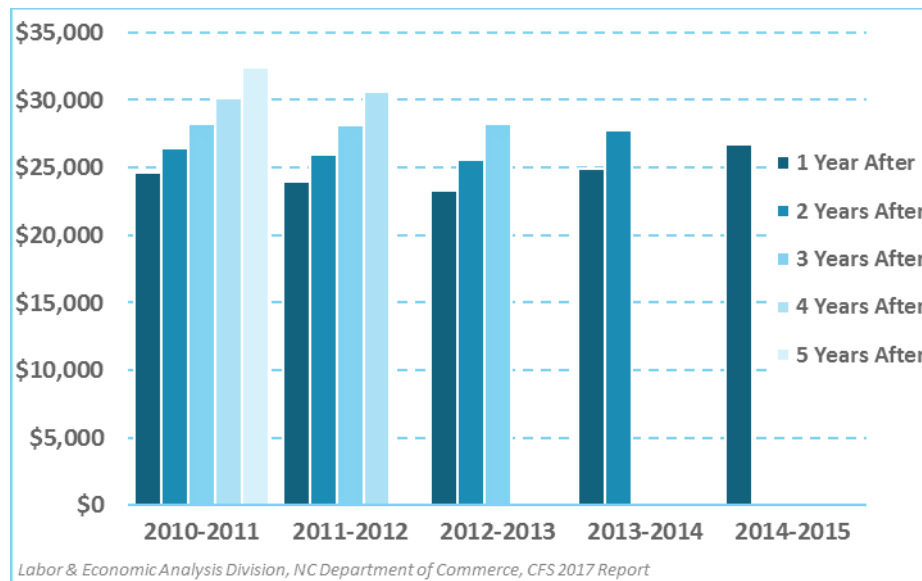
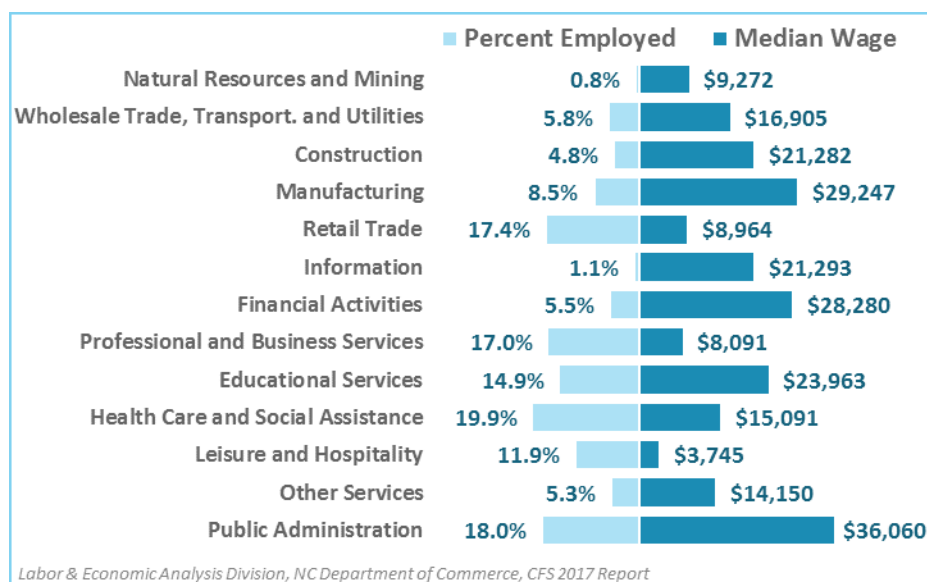


Figure 44 summarizes one-year outcomes by industry for the most recent cohort of exiters (2014-2015) examined in this report. It indicates that a significant number Workforce Continuing Education program exiters found employment in the Health Care and Social Assistance (20%), Public Administration (18%), Retail Trade (17%), or Professional and Business Services (17%) sectors. It is worth noting that Public Administration, one of the largest sectors employing individuals who previously participated in continuing education, provides the highest pay (median annual wage of \$36,060). For comparison, the 2015 annual median wage in North Carolina for all persons employed in unemployment insurance-covered jobs was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.¹⁸

¹⁸ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

FIGURE 44.
2014-2015 Workforce Continuing Education Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



SUMMARY AND RECOMMENDATIONS

Overall, the results indicate that there have been fairly stable short-term employment rates and median wages for Workforce Continuing Education program exiters. This is indicated by the one-year post employment and wage trends. When exiters are followed over time, the employment rate tends to decline somewhat. This decline could be attributable to several factors including people not sustaining employment, moving out of state, or finding employment in jobs not covered by North Carolina's unemployment insurance laws. There are a variety of reasons why individuals are not found in covered employment, including retirement, death, inability to find employment, or leaving the labor force. However, the median wages of Workforce Continuing Education program exiters continue to rise over time.

One suggested area for further investigation is the examination of industrial and occupational credentials obtained by participants in Workforce Continuing Education and other workforce development programs. While Workforce Continuing Education programs do not typically offer an academic credential, they do provide critical training that can lead to occupational or industry certifications. At the present time, there is no central repository of information regarding industry and occupational credentials. It is recommended that the North Carolina Community College System work with the Department of Commerce and local community colleges to determine if this information exists at the local colleges or could be accessed through other informational resources such as North Carolina's Licensing Boards. Information regarding occupational and industrial credentials is needed to further study the role that the Workforce Continuing Education and other workforce development programs play in helping workers access key skills and credentials.

TABLE 11.

NCCCS Workforce Continuing Education Participants and Exiters, Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Community College System						Common Follow-up System: Evaluative Measures, 2017 Report										
Workforce Continuing Education Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		204,514	198,790	197,710	184,133	176,798	204,514	198,790	197,710	184,133	204,514	198,790	197,710	204,514	198,790	204,514
Exiters		118,454	113,700	114,092	104,013	99,018	118,454	113,700	114,092	104,013	118,454	113,700	114,092	118,454	113,700	118,454
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N	81,654	77,202	78,545	74,596	73,610	78,455	74,061	75,640	71,640	76,100	72,184	73,660	74,075	70,612	72,293
	%	69%	68%	69%	72%	74%	66%	65%	66%	69%	64%	63%	65%	63%	62%	61%
Exiters' Wages in North Carolina	Mean	\$29,365	\$29,238	\$28,567	\$30,003	\$31,521	\$31,004	\$30,959	\$30,630	\$32,511	\$32,605	\$32,983	\$33,003	\$34,552	\$35,389	\$36,863
	Median	\$24,664	\$24,000	\$23,320	\$24,934	\$26,760	\$26,410	\$25,998	\$25,581	\$27,724	\$28,191	\$28,106	\$28,230	\$30,139	\$30,585	\$32,391
Exiters Enrolled in NC Public Higher Education	N	23,021	22,463	23,661	20,174	17,830	32,448	30,816	31,478	28,361	24,959	23,086	22,720	24,415	22,402	18,560
	%	19%	20%	21%	19%	18%	27%	27%	28%	27%	21%	20%	20%	21%	20%	16%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	34,554	32,658	32,868	28,649	25,865	40,762	37,789	38,983	34,949	31,692	29,997	29,878	31,131	28,866	24,883
	%	29%	29%	29%	28%	26%	34%	33%	34%	34%	27%	26%	26%	26%	25%	21%
Exiters Enrolled or Employed in NC	N	90,508	85,598	86,778	80,884	78,750	87,754	82,456	83,708	78,398	82,951	78,298	79,485	80,240	76,157	76,921
	%	76%	75%	76%	78%	80%	74%	73%	73%	75%	70%	69%	70%	68%	67%	65%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.6%	0.6%	0.6%	0.7%	0.8%	0.6%	0.6%	0.6%	0.7%	0.7%	0.6%	0.7%	0.7%	0.6%	0.7%
Wholesale Trade, Transport. and Utilities		5.6%	5.4%	5.4%	5.6%	5.8%	6.1%	5.6%	5.8%	6.1%	6.0%	5.9%	6.1%	6.3%	6.3%	6.6%
Construction		4.8%	4.7%	4.5%	4.6%	4.8%	4.7%	5.0%	4.8%	4.9%	4.8%	5.2%	5.1%	4.9%	5.4%	5.1%
Manufacturing		9.9%	9.1%	9.2%	8.9%	8.5%	10.4%	9.6%	10.0%	9.5%	10.8%	10.2%	10.4%	11.2%	10.5%	11.5%
Retail Trade		15.3%	15.9%	17.6%	17.6%	17.4%	14.6%	15.4%	16.6%	16.2%	14.2%	14.8%	15.5%	13.6%	13.9%	12.9%
Information		1.1%	1.1%	1.1%	1.3%	1.1%	1.1%	1.1%	1.2%	1.3%	1.1%	1.2%	1.2%	1.3%	1.2%	1.2%
Financial Activities		5.3%	6.1%	5.7%	5.9%	5.5%	5.4%	6.1%	5.8%	5.8%	5.5%	6.1%	5.7%	5.5%	6.1%	5.6%
Professional and Business Services		17.2%	17.7%	18.0%	17.9%	17.0%	16.9%	17.6%	17.8%	17.4%	16.8%	17.5%	17.1%	16.8%	16.8%	16.2%
Educational Services		12.2%	12.2%	13.0%	13.0%	14.9%	12.1%	12.2%	12.8%	12.8%	12.0%	12.0%	12.6%	11.9%	11.9%	11.8%
Health Care and Social Assistance		23.1%	22.3%	20.9%	20.1%	19.9%	23.2%	22.5%	21.2%	20.8%	23.3%	22.6%	21.7%	23.3%	22.9%	23.5%
Leisure and Hospitality		10.2%	11.2%	12.0%	12.2%	11.9%	9.4%	10.4%	10.9%	11.4%	8.9%	9.8%	10.4%	8.5%	9.3%	8.2%
Other Services		4.7%	4.9%	5.1%	4.9%	5.3%	4.6%	4.7%	5.0%	4.7%	4.4%	4.6%	4.8%	4.3%	4.5%	4.3%
Public Administration		16.0%	16.0%	15.7%	18.3%	18.0%	14.1%	14.0%	13.8%	16.1%	13.9%	14.0%	13.7%	14.1%	13.9%	13.9%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$15,840	\$15,038	\$10,018	\$11,136	\$9,272	\$16,964	\$17,879	\$13,183	\$13,260	\$19,926	\$16,344	\$12,779	\$20,800	\$21,055	\$21,205
Wholesale Trade, Transport. and Utilities		\$21,164	\$18,489	\$17,781	\$17,145	\$16,905	\$23,296	\$22,134	\$20,933	\$20,280	\$25,087	\$24,368	\$22,087	\$25,797	\$26,088	\$27,165
Construction		\$19,346	\$19,883	\$18,000	\$18,040	\$21,282	\$20,683	\$20,845	\$20,315	\$21,114	\$21,193	\$23,096	\$22,074	\$24,384	\$25,000	\$27,748
Manufacturing		\$32,933	\$33,123	\$30,444	\$29,575	\$29,247	\$34,403	\$35,321	\$32,006	\$32,010	\$36,213	\$35,564	\$34,128	\$37,919	\$37,331	\$39,431
Retail Trade		\$8,871	\$8,743	\$8,307	\$8,334	\$8,964	\$10,730	\$10,353	\$9,887	\$10,226	\$11,857	\$11,177	\$11,600	\$12,523	\$12,478	\$13,970
Information		\$17,880	\$19,176	\$16,198	\$20,091	\$21,293	\$20,800	\$26,299	\$21,050	\$24,209	\$26,070	\$24,799	\$24,262	\$22,812	\$30,127	\$28,712
Financial Activities		\$26,723	\$26,843	\$25,518	\$26,840	\$28,280	\$27,661	\$28,684	\$27,635	\$30,775	\$29,040	\$30,498	\$30,866	\$30,375	\$32,868	\$32,865
Professional and Business Services		\$8,004	\$8,095	\$7,136	\$7,393	\$8,091	\$9,613	\$8,815	\$8,420	\$8,678	\$9,999	\$9,665	\$9,122	\$10,739	\$10,544	\$12,070
Educational Services		\$20,500	\$20,258	\$20,078	\$20,121	\$23,963	\$21,778	\$21,132	\$21,831	\$22,037	\$22,484	\$22,601	\$23,416	\$23,671	\$23,978	\$24,941
Health Care and Social Assistance		\$15,375	\$14,466	\$14,079	\$14,077	\$15,091	\$18,515	\$17,209	\$16,952	\$17,610	\$20,599	\$19,162	\$19,685	\$22,578	\$22,217	\$25,078
Leisure and Hospitality		\$3,622	\$3,917	\$3,786	\$3,901	\$3,745	\$4,261	\$4,231	\$4,230	\$4,324	\$4,270	\$4,510	\$4,303	\$4,773	\$4,742	\$4,925
Other Services		\$12,635	\$12,585	\$12,889	\$13,897	\$14,150	\$13,520	\$14,444	\$13,950	\$14,460	\$15,471	\$15,678	\$15,625	\$16,631	\$16,537	\$17,548
Public Administration		\$33,523	\$33,410	\$33,159	\$35,834	\$36,060	\$35,803	\$36,306	\$35,892	\$39,547	\$37,064	\$37,396	\$37,640	\$37,985	\$38,876	\$39,383
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$20,966	\$21,831	\$18,275	\$17,973	\$18,800	\$21,491	\$23,573	\$20,195	\$20,617	\$23,165	\$24,739	\$21,080	\$25,019	\$27,062	\$25,161
Wholesale Trade, Transport. and Utilities		\$28,657	\$26,908	\$26,326	\$25,654	\$26,923	\$29,904	\$29,755	\$28,542	\$27,490	\$31,418	\$31,509	\$29,697	\$32,372	\$32,724	\$33,988
Construction		\$24,528	\$25,178	\$23,938	\$24,039	\$26,512	\$25,751	\$26,252	\$25,696	\$26,892	\$26,881	\$28,282	\$27,381	\$29,643	\$30,567	\$32,997
Manufacturing		\$38,645	\$38,017	\$35,857	\$35,182	\$35,911	\$39,485	\$39,470	\$37,314	\$37,103	\$41,237	\$40,499	\$38,960	\$42,526	\$42,061	\$43,903
Retail Trade		\$16,356	\$16,359	\$16,290	\$16,502	\$17,720	\$18,274	\$17,971	\$18,005	\$18,861	\$19,336	\$18,779	\$19,917	\$20,477	\$20,556	\$22,265
Information		\$27,506	\$31,549	\$27,510	\$31,904	\$32,684	\$29,394	\$33,822	\$30,082	\$33,776	\$32,356	\$34,795	\$32,430	\$32,980	\$38,540	\$36,721
Financial Activities		\$29,605	\$30,523	\$28,703	\$29,686	\$31,881	\$30,935	\$32,462	\$30,990	\$34,017	\$32,967	\$34,927	\$34,800	\$34,715	\$37,880	\$38,210
Professional and Business Services		\$17,540	\$17,530	\$16,428	\$16,298	\$17,374	\$19,214	\$19,043	\$17,835	\$18,080	\$20,549	\$20,249	\$19,336	\$21,626	\$22,114	\$23,355
Educational Services		\$24,280	\$24,049	\$24,034	\$23,943	\$27,913	\$25,522	\$24,876	\$25,794	\$25,929	\$26,162	\$26,320	\$27,192	\$27,149	\$27,646	\$28,245
Health Care and Social Assistance		\$21,418	\$20,744	\$20,664	\$20,351	\$20,905	\$23,521	\$22,621	\$22,567	\$22,918	\$25,329	\$24,469	\$24,975	\$27,424	\$27,453	\$29,981
Leisure and Hospitality		\$7,377	\$7,774	\$7,265	\$7,569	\$7,853	\$8,418	\$8,553	\$8,243	\$8,554	\$8,826	\$9,189	\$8,846	\$9,589	\$9,965	\$10,227
Other Services		\$18,493	\$18,310	\$18,484	\$19,209	\$19,735	\$19,306	\$19,669	\$19,900	\$21,158	\$20,541	\$20,965	\$21,526	\$21,944	\$22,249	\$23,213
Public Administration		\$33,037	\$33,374	\$32,640	\$35,748	\$35,491	\$36,033	\$36,508	\$35,506	\$39,744	\$37,281	\$37,646	\$37,487	\$37,992	\$39,262	\$39,557

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

OVERVIEW OF HUMAN RESOURCES DEVELOPMENT PROGRAMS

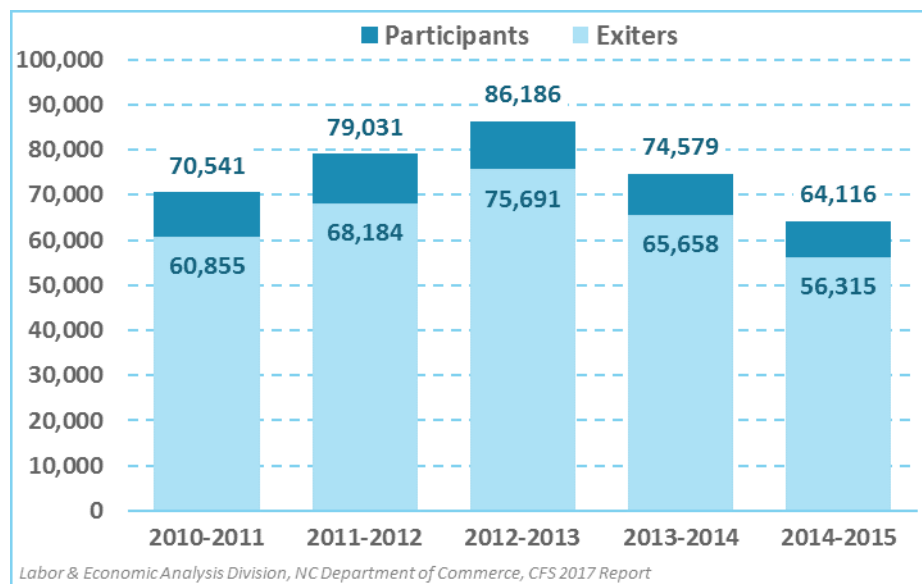
Human Resources Development (HRD) programs operated by the North Carolina Community Colleges consist of instructional programs targeting unemployed and underemployed adults. HRD training focuses on the assessment and development of employability competency skills identified as “essential” for the workplace. Skill development is accomplished through a variety of training-related activities and services, including self-esteem and goal-setting activities, career exploration and planning of educational and employment opportunities, resume and job application preparation, interviewing techniques, job referral and placement services, basic skills review, placement test review, and study skills strategies. Some community college HRD programs focus on short-term skills training, computer literacy, clerical skills, word processing, customer service, child care, home health care, hospitality, tourism training, or other skills training matched to local workforce needs.¹⁹

HRD programs are often provided in conjunction with, or as a part of, a participant’s enrollment in other workforce development programs. For example, some WIA or WIOA participants who receive career services receive part of these services through their enrollment in HRD programs. HRD programs often provide an initial opportunity for students who have not participated in educational or training programs for many years. This initial participation may lead to further enrollment in other educational and training programs.

HUMAN RESOURCES DEVELOPMENT PROGRAMS OUTCOMES

As shown in Figure 45, analyses revealed an increase in the number of participants in HRD programs between the 2010-2011 and 2012-2013 program years, followed by a decrease between 2012-2013 and 2014-2015.

FIGURE 45.
NCCCS Human Resources Development Program Participants and Exiters by Program Year

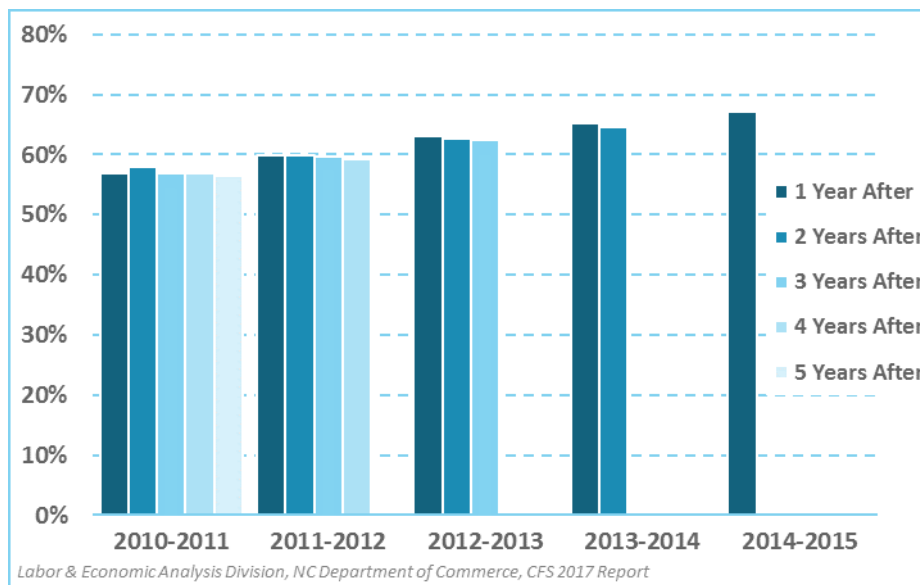


¹⁹ North Carolina Community College System, ncccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog

Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit, for each cohort. These included measures of post-exit employment rates (*Figure 46*) and wage statistics (*Figure 47*) for up to five years after exit (also see Table 12). These measures include only those individuals who were employed in North Carolina in jobs covered by the state's unemployment insurance laws.

One-year post-exit employment rates increased across the five cohorts, ranging from 57% in 2010-2011 to 67% in 2014-2015 (*Figure 46, Table 12*), while subsequent enrollment in NC public higher education declined across cohorts (Table 12). One-year post-exit median wages increased steadily between the 2010-11 and 2014-2015 cohorts (from \$9,880 to \$11,823).

FIGURE 46.
Percentage of NCCCS Human Resources Development Program Exiters Employed in North Carolina After Exit, by Year of Exit



Longer term post-exit employment and wage measures indicate that five years after exit, 56% of the 2010-2011 exiting cohort were employed in North Carolina. Post-exit employment rates were relatively stable across cohorts for a given post-exit year, while the median post-exit wage increased over time across all cohorts. The 2010-2011 exiters experienced a growth in median wages from \$9,880 one year after exit to \$14,605 at year three and \$17,772 at the five-year mark, while the 2012-2013 exiters saw median wages grow from \$10,131 one year after exit to \$15,284 at year three.

In looking at one-year outcomes by industry for the most recent cohort of exiters examined in this report (those who exited during the 2014-2015 program year), the largest group (38%) of HRD program exiters found employment in the Professional and Business Services industry (a sector which includes temporary help agencies), earning a median wage of \$4,431 (Figure 48, Table 12). Other relatively common industries employing this cohort one year post exit include Leisure and Hospitality (23%), Manufacturing (20%), Retail Trade (18%), and Health Care and Social Assistance (16%). Of those industries employing HRD program exiters, Manufacturing was associated with the highest median annual wage (\$12,624).

FIGURE 47.
Median Wage of NCCCS Human Resources Development Program Exiters in North Carolina, by Year of Exit

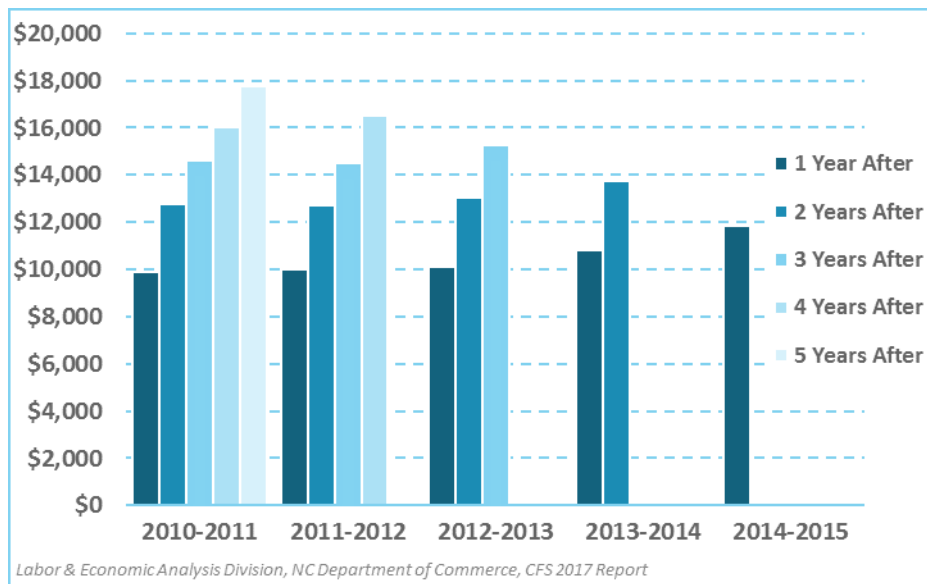
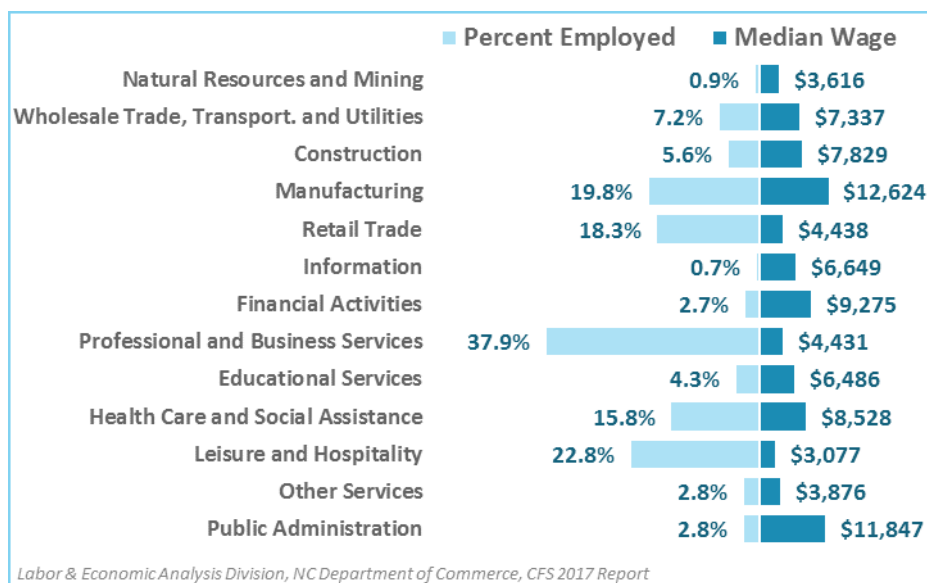


FIGURE 48.
2014-2015 NCCCS Human Resources Development Program Exiters One Year After Exit: Percentage Employed and Median Wage by Industry



Overall, the results indicate that there have been improvements in short-term employment rates and short-term wage outcomes for HRD program exiters. This is indicated by the one-year post-employment and wage trends. When exiting cohorts are followed over time, the employment rate remains stable, while the median wages rise. The median wage of HRD program participants who exited in the 2010-2011 program year was \$17,772 five years after exit. By contrast, the 2015 median annual wage in North Carolina for all unemployment insurance-covered workers was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.²⁰

SUMMARY AND RECOMMENDATIONS

The post-exit outcomes of NCCCS HRD program participants are trending in a favorable direction. Median wages and employment rates have improved from one cohort to the next throughout the period studied, evidence that individuals who participate in HRD programs are benefitting from the increase in employer demand as the economy continues to grow.

The rate of subsequent enrollment by HRD exiters in public higher education programs has declined over time, which is also consistent with the pursuit of employment opportunities in a tightening labor market. Still, HRD exiters show greater levels of enrollment in higher education than participants of many other training programs, suggesting that many HRD program participants are subsequently pursuing pathways to further skill development.

To the extent that HRD programming varies by campus, additional analysis might be merited to assess whether the services offered through local HRD programs are aligned with the needs of the local labor market.

²⁰ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 12.

NCCCS Human Resources Development Participants and Exiters, Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Community College System						Common Follow-up System: Evaluative Measures, 2017 Report										
Human Resources Development Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		70,541	79,031	86,186	74,579	64,116	70,541	79,031	86,186	74,579	70,541	79,031	86,186	70,541	79,031	70,541
Exiters		60,855	68,184	75,691	65,658	56,315	60,855	68,184	75,691	65,658	60,855	68,184	75,691	60,855	68,184	60,855
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N	34,653	40,757	47,711	42,856	37,788	35,288	40,838	47,493	42,461	34,649	40,611	47,186	34,596	40,423	34,377
	%	57%	60%	63%	65%	67%	58%	60%	63%	65%	57%	60%	62%	57%	59%	56%
Exiters' Wages in North Carolina	Mean	\$13,444	\$13,408	\$13,530	\$14,003	\$14,984	\$16,202	\$16,190	\$16,427	\$16,942	\$17,964	\$17,920	\$18,580	\$19,510	\$19,780	\$21,103
	Median	\$9,880	\$9,978	\$10,131	\$10,812	\$11,823	\$12,783	\$12,735	\$13,032	\$13,764	\$14,605	\$14,497	\$15,284	\$16,002	\$16,498	\$17,772
Exiters Enrolled in NC Public Higher Education	N	19,020	20,704	22,488	17,825	13,005	15,085	16,093	16,467	13,240	12,223	12,669	12,691	9,843	9,961	7,880
	%	31%	30%	30%	27%	23%	25%	24%	22%	20%	20%	19%	17%	16%	15%	13%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	35,443	39,275	40,690	35,510	28,665	25,870	27,328	29,837	25,165	20,725	23,244	25,071	18,159	20,130	15,889
	%	58%	58%	54%	54%	51%	43%	40%	39%	38%	34%	34%	33%	30%	30%	26%
Exiters Enrolled or Employed in NC	N	47,748	54,177	60,358	52,628	45,043	43,695	49,130	55,366	48,449	41,001	46,731	53,095	39,344	45,243	38,359
	%	78%	79%	80%	80%	80%	72%	72%	73%	74%	67%	69%	70%	65%	66%	63%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.8%	0.7%	0.7%	0.9%	0.9%	0.8%	0.8%	0.8%	0.9%	0.7%	0.9%	0.8%	0.9%	0.9%	0.8%
Wholesale Trade, Transport. and Utilities		6.3%	5.8%	6.1%	6.8%	7.2%	6.6%	6.3%	6.8%	7.7%	6.7%	6.5%	7.5%	7.0%	7.1%	7.6%
Construction		6.0%	4.9%	4.7%	5.0%	5.6%	5.8%	5.1%	5.1%	5.5%	5.7%	5.4%	5.6%	6.1%	5.6%	6.1%
Manufacturing		16.4%	16.6%	16.9%	17.9%	19.8%	17.5%	17.1%	17.5%	19.2%	18.1%	18.1%	19.0%	19.2%	19.0%	19.7%
Retail Trade		17.6%	17.5%	18.0%	18.7%	18.3%	16.4%	16.8%	17.4%	17.1%	16.3%	16.5%	16.7%	15.7%	15.8%	15.1%
Information		0.8%	0.9%	0.9%	0.8%	0.7%	0.8%	0.9%	0.9%	0.8%	0.8%	0.9%	0.9%	0.9%	0.8%	0.9%
Financial Activities		2.7%	2.7%	3.2%	3.3%	2.7%	3.0%	3.2%	4.0%	2.8%	3.4%	3.6%	3.0%	3.7%	3.1%	3.4%
Professional and Business Services		34.0%	33.6%	36.1%	38.0%	37.9%	29.8%	30.8%	33.0%	33.1%	28.4%	30.0%	31.4%	28.3%	28.9%	27.2%
Educational Services		5.7%	5.4%	4.5%	4.6%	4.3%	5.5%	5.3%	4.5%	4.5%	5.5%	5.4%	4.6%	5.4%	5.4%	5.4%
Health Care and Social Assistance		19.0%	18.0%	15.9%	16.4%	15.8%	19.2%	18.6%	16.6%	16.9%	19.5%	18.7%	17.2%	19.2%	19.2%	19.1%
Leisure and Hospitality		18.6%	19.9%	21.9%	22.6%	22.8%	17.6%	19.3%	20.5%	21.4%	17.0%	18.5%	19.9%	16.6%	18.1%	17.0%
Other Services		2.6%	3.0%	2.8%	2.4%	2.8%	2.9%	2.9%	2.8%	2.8%	2.9%	2.9%	2.8%	2.9%	2.8%	3.0%
Public Administration		3.1%	3.0%	2.4%	2.6%	2.8%	3.5%	3.1%	2.8%	2.9%	3.6%	3.4%	3.1%	3.9%	3.6%	4.0%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$3,712	\$3,453	\$2,227	\$2,308	\$3,616	\$4,717	\$3,949	\$2,880	\$2,889	\$6,622	\$3,854	\$2,583	\$6,447	\$5,059	\$7,370
Wholesale Trade, Transport. and Utilities		\$8,314	\$7,571	\$7,538	\$8,127	\$7,337	\$12,505	\$10,781	\$10,213	\$10,451	\$13,594	\$13,259	\$11,809	\$15,374	\$13,917	\$15,036
Construction		\$8,417	\$6,885	\$7,025	\$6,880	\$7,829	\$10,028	\$8,793	\$9,667	\$8,920	\$10,612	\$10,605	\$11,107	\$12,516	\$11,598	\$14,285
Manufacturing		\$12,426	\$10,673	\$9,565	\$11,408	\$12,624	\$17,849	\$16,416	\$15,797	\$16,198	\$20,703	\$19,109	\$18,381	\$21,957	\$21,127	\$23,577
Retail Trade		\$4,548	\$4,306	\$4,296	\$4,026	\$4,438	\$5,964	\$5,607	\$5,496	\$5,303	\$6,862	\$6,102	\$5,970	\$7,117	\$6,782	\$7,800
Information		\$7,534	\$6,740	\$6,250	\$6,610	\$6,649	\$9,982	\$10,417	\$9,578	\$8,704	\$12,648	\$12,662	\$10,436	\$14,157	\$11,502	\$16,637
Financial Activities		\$9,756	\$8,358	\$4,856	\$3,742	\$9,275	\$12,688	\$9,771	\$4,340	\$10,529	\$13,625	\$8,886	\$15,903	\$12,100	\$17,306	\$18,611
Professional and Business Services		\$4,257	\$4,270	\$4,347	\$4,300	\$4,431	\$4,646	\$4,680	\$4,721	\$4,466	\$4,968	\$5,001	\$4,744	\$5,181	\$4,883	\$5,292
Educational Services		\$6,012	\$7,726	\$6,586	\$6,794	\$6,486	\$8,804	\$9,755	\$9,796	\$9,433	\$10,766	\$11,209	\$11,396	\$11,744	\$13,946	\$13,094
Health Care and Social Assistance		\$8,086	\$8,140	\$8,314	\$8,021	\$8,528	\$11,206	\$11,051	\$11,141	\$10,846	\$13,074	\$12,707	\$12,722	\$14,033	\$14,292	\$15,650
Leisure and Hospitality		\$3,122	\$3,142	\$3,100	\$3,169	\$3,077	\$3,730	\$3,658	\$3,680	\$3,574	\$4,054	\$4,008	\$3,933	\$4,242	\$3,977	\$4,099
Other Services		\$3,954	\$3,794	\$3,531	\$3,706	\$3,876	\$4,656	\$4,869	\$5,021	\$5,026	\$5,933	\$4,695	\$5,416	\$6,550	\$5,798	\$6,160
Public Administration		\$9,308	\$11,307	\$11,216	\$11,598	\$11,847	\$18,483	\$20,298	\$19,511	\$19,729	\$22,539	\$23,460	\$24,459	\$24,281	\$25,356	\$26,843
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$8,250	\$7,411	\$6,486	\$7,101	\$8,252	\$10,837	\$8,922	\$7,371	\$8,981	\$11,924	\$9,470	\$8,016	\$12,691	\$10,940	\$14,081
Wholesale Trade, Transport. and Utilities		\$12,859	\$12,704	\$12,495	\$12,914	\$12,076	\$16,514	\$16,075	\$15,461	\$15,717	\$18,305	\$18,275	\$17,125	\$19,671	\$18,932	\$20,577
Construction		\$13,159	\$11,942	\$12,256	\$12,302	\$12,867	\$15,436	\$14,225	\$15,303	\$14,929	\$16,657	\$15,774	\$16,852	\$17,957	\$17,621	\$20,244
Manufacturing		\$16,279	\$15,291	\$14,060	\$15,279	\$16,367	\$20,435	\$19,187	\$18,782	\$19,232	\$22,921	\$21,360	\$20,745	\$24,267	\$23,150	\$25,617
Retail Trade		\$7,192	\$7,068	\$7,020	\$6,860	\$7,630	\$9,125	\$8,793	\$8,612	\$8,790	\$10,062	\$9,576	\$9,783	\$10,714	\$10,734	\$11,445
Information		\$14,492	\$11,936	\$12,754	\$12,210	\$13,219	\$18,696	\$17,552	\$16,145	\$14,602	\$19,959	\$20,234	\$18,770	\$22,281	\$21,358	\$23,503
Financial Activities		\$14,791	\$14,677	\$11,938	\$10,793	\$14,958	\$17,352	\$16,442	\$13,305	\$17,671	\$18,183	\$16,887	\$21,301	\$18,188	\$22,361	\$22,131
Professional and Business Services		\$8,152	\$7,970	\$8,020	\$7,859	\$8,034	\$9,195	\$9,147	\$9,109	\$8,762	\$9,914	\$9,730	\$9,498	\$10,351	\$10,085	\$10,786
Educational Services		\$10,597	\$11,442	\$10,914	\$10,714	\$10,743	\$13,031	\$13,385	\$13,770	\$13,077	\$14,526	\$14,790	\$15,530	\$15,540	\$16,571	\$16,489
Health Care and Social Assistance		\$10,960	\$11,007	\$11,129	\$11,184	\$11,721	\$13,596	\$13,647	\$13,427	\$13,769	\$15,111	\$15,196	\$15,362	\$16,339	\$16,892	\$18,261
Leisure and Hospitality		\$5,206	\$5,346	\$5,324	\$5,370	\$5,510	\$6,106	\$6,138	\$6,332	\$6,263	\$6,566	\$6,653	\$7,067	\$7,065	\$7,013	\$7,262
Other Services		\$7,546	\$7,831	\$7,289	\$7,497	\$8,259	\$9,040	\$10,017	\$9,339	\$9,146	\$10,344	\$9,703	\$10,129	\$10,703	\$11,082	\$10,855
Public Administration		\$14,176	\$14,562	\$15,647	\$15,497	\$15,917	\$18,684	\$19,719	\$19,699	\$20,134	\$20,972	\$21,806	\$22,640	\$22,133	\$23,131	\$24,330

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

OVERVIEW OF BASIC SKILLS PROGRAMS

The Basic Skills programs operated by the North Carolina Community Colleges include a group of education programs designed to assist adults with the acquisition of basic educational skills. Programs offered under the Basic Skills designation include Adult Basic Education (ABE); Adult Secondary Education (ASE), including High School Equivalency and Adult High School Diploma programs; and English as a second language (ESL).²¹ In July of 2014, the Workforce Innovation and Opportunity Act (WIOA) was signed into law. The WIOA supersedes the Workforce Investment Act of 1998 and amends the Adult Education and Family Literacy Act, which authorizes programs offered through North Carolina's Basic Skills programs.

Adult Basic Education (ABE) is a program of instruction designed to assist adults 16 or older who function below the high school level, with instruction in reading, writing, math and English. Adults with intellectual disabilities are also served by the ABE program provided they have a formal diagnosis and show progress in the program.

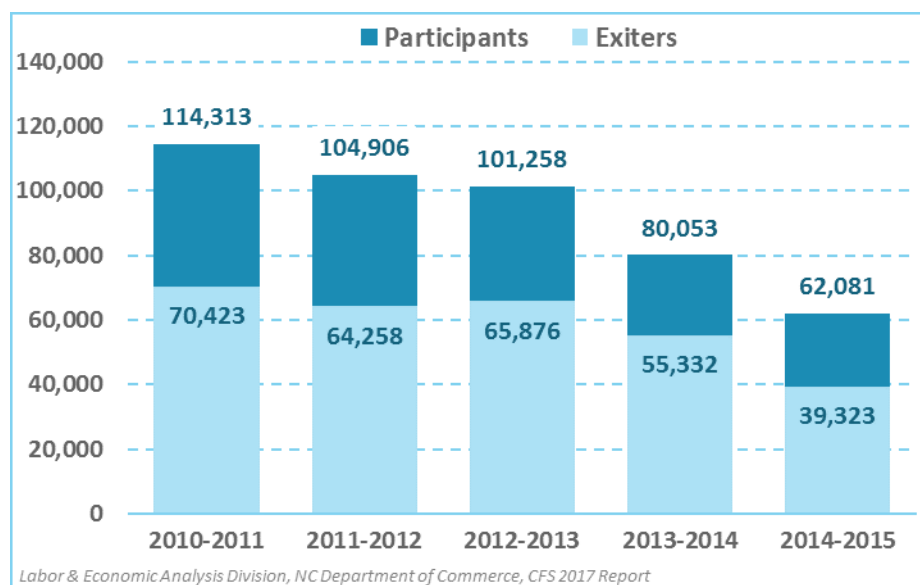
The Adult Secondary Education (ASE) program is designed to prepare adults, 18 or older, for further education or transition toward skill attainment and employment, and includes both the Adult High School (AHS) and the High School Equivalency (HSE) Diploma programs.²² The AHS program consists of classroom instruction, learning laboratory courses, and distance education to assist adults with obtaining an Adult High School Diploma. The HSE program offers instruction to assist learners who are preparing to take a high school equivalency exam such as GED®, HiSET®, or TASC.

English as a Second Language is a program to assist adults who have limited English proficiency, and includes instruction in English language listening, speaking, reading, writing, and comprehension.²³

PROGRAM OUTCOMES

Employment and wage outcome measures were calculated for each cohort of participants exiting the Basic Skills programs. Participants who were not enrolled in a Basic Skills program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit. Results indicated that the number of Basic Skills participants and exiters declined noticeably over the five-year time period (*Figure 49*).

FIGURE 49.
NCCCS Basic Skills Program Participants and Exiters by Program Year



²¹ North Carolina Community College System, ncccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog

²² ncccommunitycolleges.edu/college-and-career-readiness/adult-secondary-education

²³ ncccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog

Figures 50 and 51 show the employment and wage outcomes for Basic Skills program exiters by program year (*also see Table 13*). Short-term outcomes at one year after program exit show steady increases in employment rates with nearly each successive cohort, and little variation in median wages by cohort. One-year post-exit employment increased from 49% for the 2010-2011 program year cohort to 55% for the 2013-2014 program year cohort, with a slightly lower rate of 54% for the 2014-2015 cohort. One-year post-completion median wages for Basic Skills program completers varied marginally between \$8,557 for the 2011-2012 cohort and \$8,909 for the 2013-2014 cohort.

Longer-term post-exit employment and wage measures indicate rather stable employment rates and steady increases in median wages. Employment stayed at the level of 49-50% for the 2010-2011 cohort, 50-51% for the 2011-2012 cohort, and 52-53% for the 2012-2013 cohort for all post-exit years. While the median post-completion wages were fairly low, all showed significant and regular increases over time for all cohorts in this analysis. For the 2010-2011 and 2011-2012 cohorts, median wages rose between the first and second post-exit years by 15% and 13%, respectively. Both the 2012-2013 and 2013-2014 cohorts experienced a median wage increase of 19% in their second year as measured by annual median wages. In the later post-exit years, median wages for all cohorts kept growing at annual rates between 10% and 14%.

FIGURE 50.
Percentage of NCCCS Basic Skills Exiters Employed in North Carolina After Exit, by Year of Exit

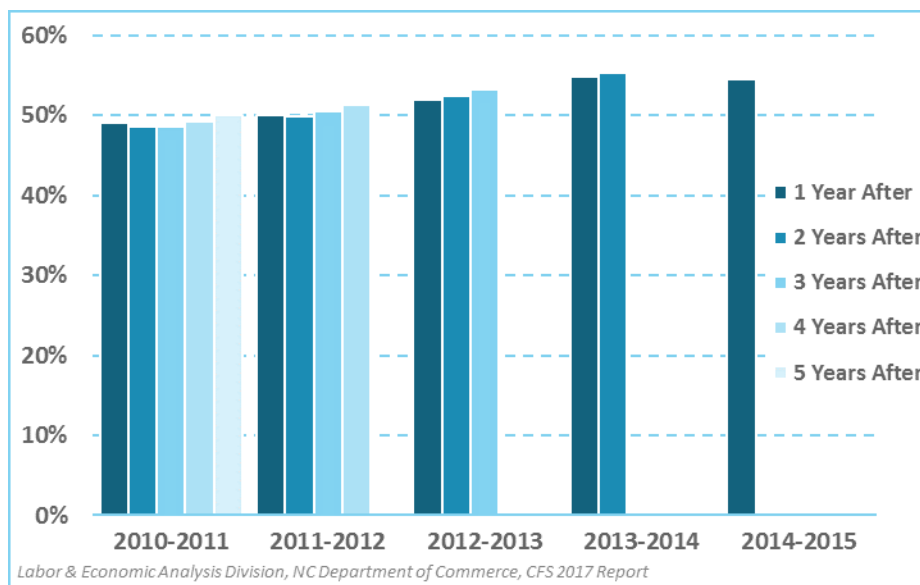
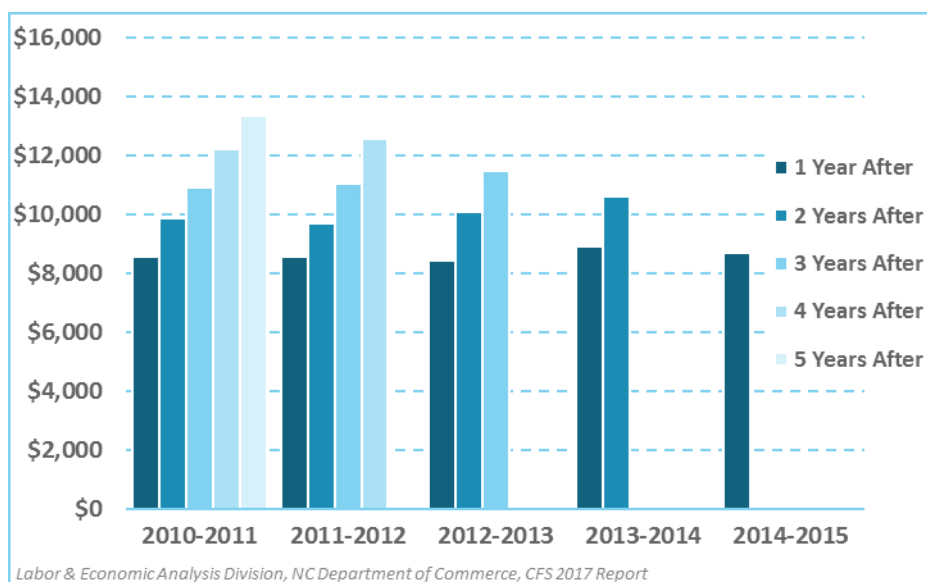
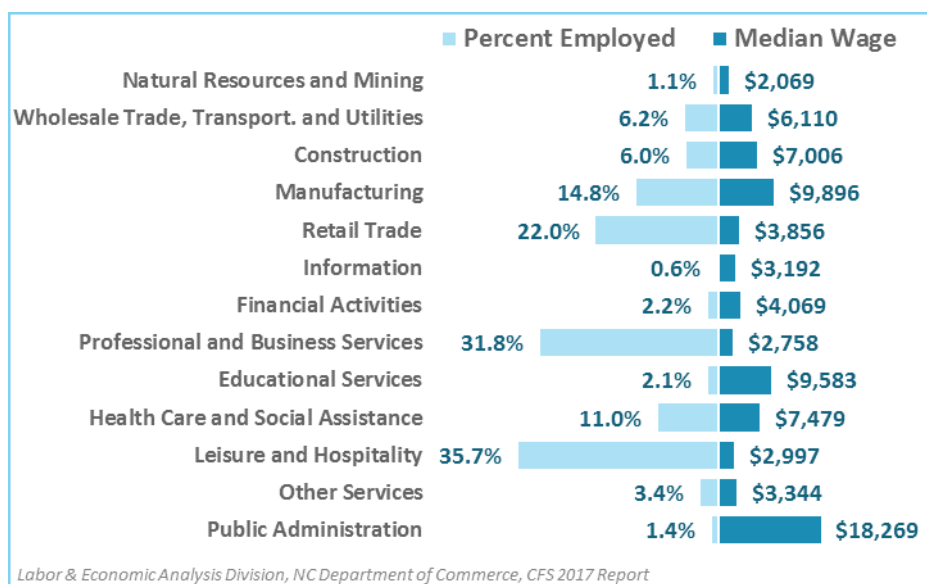


FIGURE 51.
**Median Wage of NCCCS Basic Skills Program Exiters in North Carolina,
 by Year of Exit**



Further analysis of one-year outcomes for the 2014-2015 exiting cohort (*Figure 52*) reveals that the largest percentage of Basic Skills program exiters were employed in Leisure and Hospitality (36%) and Professional and Business Services (32%), paying median annual wages of \$2,997 and \$2,758, respectively. While these are among the lowest-paid median wages for this cohort, they often represent temporary part-time employment. The Public Administration sector provided the highest median wage (\$18,269) but employed few Basic Skills exiters (1% of the 2014-2015 cohort one year after exit). The second- and third-highest-paid industries were Manufacturing (15%) and Educational Services (2%), paying \$9,896 and \$9,583 in median annual wages, respectively.

FIGURE 52.
**2014-2015 NCCCS Basic Skills Program Exiters One Year After Exit: Percentage
 Employed and Median Wage by Industry**



SUMMARY AND RECOMMENDATIONS

Overall, the results indicate that there have been comparable employment rates across program year cohorts and stable employment rates when Basic Skills program participants are followed over time. The post-exit median wage rates of Basic Skills participants are low; however, there are some increases over time. For example, the median wage for the 2010-2011 program year cohort was \$8,572 one year after exit, increasing to \$13,345 by year five. By contrast, the 2015 annual median wage in North Carolina for all persons employed in UI-covered jobs was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.²⁴ While post-exit wages are low, stable employment rates demonstrate a positive outcome for Basic Skills program credential recipients. In addition, the subsequent enrollment of Basic Skills programs exiters in further education is a positive outcome for the program. Between 12% and 21% of the participants were enrolled in additional higher educational programs during the five years after exiting the program. This indicates that individuals are continuing in additional skill development after gaining their high school credential.

As previously noted, part of the requirement of the new WIOA is the development of an integrated service delivery plan that includes the coordination between WIOA, Wagner-Peyser, Adult Basic Education and Vocational Rehabilitation programs. It is recommended that North Carolina's integrated service delivery plan and implementation continue to focus on the leveraging of resources and services across these programs and focus on achieving higher employment and wage outcomes for all participants and for increasing occupational skills and educational credentials.

²⁴ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

TABLE 13.

NCCCS Basic Skills Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Community College System						Common Follow-up System: Evaluative Measures, 2017 Report										
Basic Skills Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		114,313	104,906	101,258	80,053	62,081	114,313	104,906	101,258	80,053	114,313	104,906	101,258	114,313	104,906	114,313
Exiters		70,423	64,258	65,876	55,332	39,323	70,423	64,258	65,876	55,332	70,423	64,258	65,876	70,423	64,258	70,423
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N %	34,529 49%	32,119 50%	34,238 52%	30,309 55%	21,417 54%	34,218 49%	32,082 50%	34,510 52%	30,586 55%	34,164 49%	32,464 51%	35,018 53%	34,656 49%	32,925 51%	35,212 50%
Exiters' Wages in North Carolina	Mean Median	\$11,792 \$8,572	\$11,825 \$8,557	\$11,900 \$8,426	\$12,356 \$8,909	\$12,449 \$8,685	\$12,973 \$9,856	\$13,041 \$9,683	\$13,495 \$10,073	\$13,977 \$10,605	\$14,079 \$10,923	\$14,378 \$11,024	\$15,012 \$11,485	\$15,378 \$12,218	\$15,851 \$12,552	\$16,628 \$13,343
Exiters Enrolled in NC Public Higher Education	N %	10,971 16%	10,641 17%	11,063 17%	8,893 16%	4,945 13%	14,878 21%	12,242 19%	12,073 18%	9,406 17%	12,608 18%	10,454 16%	9,917 15%	9,957 14%	8,411 13%	8,180 12%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	21,106 30%	19,452 30%	19,265 29%	16,026 29%	10,106 26%	22,586 32%	18,841 29%	19,385 29%	15,457 28%	19,200 27%	17,339 27%	16,706 25%	17,157 24%	14,942 23%	14,830 21%
Exiters Enrolled or Employed in NC	N %	42,363 60%	39,156 61%	40,851 62%	35,139 64%	24,563 62%	42,656 61%	38,702 60%	40,532 62%	35,063 63%	41,020 58%	37,854 59%	39,750 60%	39,956 57%	37,179 58%	39,384 56%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		1.0%	1.0%	1.2%	1.1%	1.1%	1.0%	1.0%	1.2%	1.1%	1.0%	1.2%	1.1%	1.1%	1.1%	1.0%
Wholesale Trade, Transport. and Utilities		5.7%	5.6%	5.9%	6.0%	6.2%	5.9%	6.2%	6.6%	7.2%	6.5%	6.8%	7.1%	7.1%	7.6%	7.5%
Construction		6.9%	6.3%	6.1%	6.0%	6.0%	6.7%	6.7%	6.9%	6.5%	7.0%	7.2%	7.1%	7.6%	7.6%	8.1%
Manufacturing		14.4%	14.1%	14.5%	14.8%	14.8%	15.3%	14.9%	15.7%	16.5%	16.0%	16.0%	16.9%	17.0%	16.9%	17.8%
Retail Trade		20.5%	21.1%	21.5%	22.4%	22.0%	19.8%	20.6%	21.4%	21.1%	19.4%	20.4%	20.4%	18.9%	19.3%	18.2%
Information		0.5%	0.5%	0.5%	0.7%	0.6%	0.5%	0.5%	0.6%	0.8%	0.5%	0.6%	0.7%	0.6%	0.7%	0.7%
Financial Activities		2.0%	2.0%	2.4%	2.5%	2.2%	2.2%	2.4%	2.6%	2.5%	2.5%	2.9%	2.5%	2.8%	2.8%	2.6%
Professional and Business Services		28.7%	29.0%	30.6%	31.5%	31.8%	28.3%	30.0%	30.6%	30.9%	29.1%	30.8%	30.6%	29.9%	30.4%	29.8%
Educational Services		2.2%	2.3%	2.2%	2.1%	2.1%	2.3%	2.4%	2.3%	2.3%	2.3%	2.4%	2.4%	2.3%	2.5%	2.4%
Health Care and Social Assistance		11.4%	10.9%	10.7%	11.5%	11.0%	11.8%	11.6%	11.4%	12.3%	12.2%	11.8%	12.1%	12.1%	12.4%	12.5%
Leisure and Hospitality		30.8%	32.0%	32.6%	33.0%	35.7%	29.3%	30.4%	30.6%	31.9%	28.3%	28.8%	29.8%	27.1%	28.6%	26.8%
Other Services		3.3%	3.3%	3.0%	3.4%	3.4%	3.5%	3.2%	3.4%	3.6%	3.4%	3.5%	3.5%	3.7%	3.6%	3.8%
Public Administration		1.5%	1.5%	1.4%	1.5%	1.4%	1.6%	1.7%	1.6%	1.6%	1.8%	1.9%	1.7%	1.9%	2.0%	2.0%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$4,426	\$4,052	\$3,360	\$3,840	\$2,069	\$5,907	\$3,985	\$3,271	\$3,708	\$5,038	\$4,280	\$3,639	\$5,120	\$4,840	\$5,228
Wholesale Trade, Transport. and Utilities		\$8,511	\$8,660	\$7,881	\$7,753	\$6,110	\$9,876	\$8,896	\$8,667	\$7,346	\$10,677	\$10,092	\$9,031	\$11,012	\$9,967	\$11,404
Construction		\$8,565	\$7,167	\$7,568	\$7,550	\$7,006	\$9,412	\$8,757	\$8,708	\$8,173	\$10,012	\$9,281	\$10,292	\$11,464	\$10,192	\$11,517
Manufacturing		\$12,439	\$12,898	\$12,057	\$12,835	\$9,896	\$14,834	\$14,468	\$13,765	\$13,476	\$16,914	\$15,133	\$15,043	\$17,337	\$16,289	\$18,155
Retail Trade		\$4,422	\$4,569	\$4,359	\$4,108	\$3,856	\$5,028	\$5,191	\$4,628	\$4,638	\$5,340	\$5,079	\$5,035	\$5,697	\$5,625	\$5,953
Information		\$6,888	\$5,757	\$5,525	\$4,553	\$3,192	\$6,121	\$7,379	\$5,602	\$3,600	\$9,419	\$8,538	\$4,575	\$10,260	\$5,996	\$7,160
Financial Activities		\$6,964	\$7,121	\$4,698	\$4,165	\$4,069	\$7,645	\$6,551	\$3,980	\$6,444	\$5,632	\$5,375	\$7,058	\$4,902	\$8,352	\$8,769
Professional and Business Services		\$3,078	\$2,875	\$2,802	\$3,021	\$2,758	\$3,184	\$2,985	\$3,153	\$3,041	\$3,348	\$3,241	\$3,119	\$3,560	\$3,173	\$3,646
Educational Services		\$8,226	\$9,457	\$10,268	\$8,756	\$9,583	\$10,102	\$10,448	\$11,122	\$9,414	\$12,260	\$11,095	\$12,066	\$12,336	\$11,862	\$12,539
Health Care and Social Assistance		\$7,487	\$8,255	\$7,819	\$7,877	\$7,479	\$8,928	\$8,851	\$8,575	\$8,771	\$10,192	\$9,743	\$9,208	\$11,020	\$10,959	\$11,060
Leisure and Hospitality		\$3,625	\$3,455	\$3,333	\$3,341	\$2,997	\$3,942	\$3,637	\$3,611	\$3,494	\$4,008	\$3,932	\$3,702	\$4,168	\$4,003	\$4,186
Other Services		\$4,420	\$4,252	\$3,616	\$3,758	\$3,344	\$5,016	\$3,895	\$3,900	\$4,003	\$5,887	\$4,934	\$4,752	\$6,374	\$5,405	\$6,405
Public Administration		\$17,098	\$19,561	\$16,019	\$15,653	\$18,269	\$20,464	\$20,048	\$20,227	\$22,339	\$23,102	\$22,883	\$23,146	\$24,501	\$25,013	\$25,705
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$10,464	\$9,337	\$8,296	\$9,727	\$8,758	\$11,401	\$9,815	\$9,290	\$10,056	\$11,275	\$10,743	\$9,677	\$12,392	\$11,788	\$12,664
Wholesale Trade, Transport. and Utilities		\$13,162	\$13,263	\$13,048	\$13,301	\$11,953	\$14,645	\$14,040	\$14,254	\$13,361	\$15,553	\$15,266	\$14,871	\$16,348	\$15,700	\$16,937
Construction		\$13,045	\$12,849	\$13,303	\$12,780	\$13,001	\$14,327	\$14,071	\$14,427	\$14,232	\$15,256	\$15,080	\$16,116	\$16,649	\$16,512	\$17,786
Manufacturing		\$15,096	\$15,352	\$15,467	\$15,993	\$15,132	\$16,613	\$16,720	\$16,933	\$16,817	\$18,128	\$17,601	\$17,912	\$18,974	\$18,658	\$19,593
Retail Trade		\$7,431	\$7,760	\$7,263	\$7,233	\$7,239	\$8,310	\$8,511	\$8,050	\$8,391	\$8,854	\$8,873	\$8,981	\$9,482	\$9,862	\$10,256
Information		\$12,483	\$10,363	\$12,853	\$10,177	\$9,366	\$12,255	\$12,676	\$13,449	\$10,427	\$14,433	\$14,425	\$13,294	\$15,387	\$15,018	\$14,847
Financial Activities		\$12,617	\$12,822	\$11,209	\$10,477	\$10,258	\$13,476	\$12,721	\$11,352	\$12,516	\$12,539	\$12,286	\$13,537	\$12,058	\$14,364	\$15,035
Professional and Business Services		\$6,273	\$6,107	\$6,138	\$6,263	\$6,038	\$6,662	\$6,400	\$6,682	\$6,553	\$6,876	\$6,835	\$6,890	\$7,305	\$7,159	\$7,687
Educational Services		\$11,737	\$12,003	\$13,347	\$11,769	\$12,759	\$12,856	\$12,572	\$13,915	\$12,587	\$14,239	\$13,114	\$14,551	\$14,764	\$13,946	\$15,382
Health Care and Social Assistance		\$10,537	\$11,107	\$10,932	\$11,295	\$11,355	\$11,787	\$11,721	\$11,678	\$12,124	\$12,684	\$12,560	\$12,520	\$13,545	\$13,807	\$14,222
Leisure and Hospitality		\$5,875	\$5,825	\$5,750	\$5,711	\$5,568	\$6,376	\$6,178	\$6,309	\$6,210	\$6,656	\$6,634	\$6,987	\$7,009	\$7,033	\$7,314
Other Services		\$8,395	\$7,934	\$7,769	\$7,253	\$8,052	\$9,170	\$8,306	\$8,409	\$7,818	\$9,943	\$9,333	\$9,433	\$10,623	\$10,290	\$10,957
Public Administration		\$17,984	\$19,064	\$18,313	\$18,815	\$21,685	\$19,721	\$20,003	\$20,167	\$21,683	\$21,045	\$20,841	\$21,977	\$22,334	\$23,155	\$23,447

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

OVERVIEW OF CUSTOMIZED TRAINING PROGRAM

The Customized Training (CT) Program began in 1958 as the New and Expanding Industry Training Program. In 2008, legislation was passed to combine the New and Expanding Industry Training Program, the Focused Industry Training Program, and the Customized Industry Training Program into one. The CT program was developed in recognition of the fact that a critical consideration for a business or industry considering locating, expanding, or remaining in North Carolina is the ability of the state to ensure the presence of a well-trained workforce.

The Customized Training Program supports the economic development efforts of the state by providing education, training, and support services for eligible new, expanding, and existing businesses and industries in North Carolina through the state's network of 58 community colleges serving all 100 counties. The program also provides services to individuals who are employed or seeking employment by an eligible business or industry. To qualify, businesses and industries must fall within the eligible clusters of manufacturing, technology intensive (i.e., information technology, life sciences), regional or national warehousing and distribution centers, customer support centers, air courier services, national headquarters with operations outside North Carolina, and civil service employees providing technical support to US military installations located in North Carolina.

Eligible businesses and industries must also demonstrate that they are making an appreciable capital investment; deploying new technology; creating jobs, expanding the existing workforce, or improving the productivity and profitability of the operation in the state; and enhancing workers' skills. Resources may support training assessment, instructional design, instructional costs, and training delivery for personnel involved in the direct production of goods and services, as well as those in production and technology support; employees eligible for training also include full-time probationary employees of eligible companies. The use of Customized Training funds requires that trainees are paid by the company for all time during training hours.²⁵

CUSTOMIZED TRAINING PROGRAM OUTCOMES

As shown in Figure 53, the number of participants and exiters in the CT program increased over the five program years. Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit. Between the 2010-2011 and 2014-2015 periods, the number of participants increased by 5,000 while the number of exiters increased by 2,900.

Figures 54 and 55 show the program employment and wage outcomes during the period studied (*also see Table 14*). The rate of employment in North Carolina one year after exit showed gradual increases across four of the five cohorts, with a minor decline for the 2011-2012 cohort. The rate reached a high of 90% for the 2014-2015 cohort, up five percent points from the low in the 2011-2012 cohort. Three-year post-exit employment rates dropped about eight percentage points for the 2010-2011, 2011-2012, and 2012-2013 cohorts. The rate continued to slide from 86% to 74% five years after exit for the 2010-2011 cohort (*Figure 54*).

Median wages one year after exit fluctuated across the cohorts examined here. Longer-term wage outcomes, however, consistently showed wage growth for all cohorts. Median wages three years post exit showed moderate growth over the 2010-2011, 2011-2012, and 2012-2013 cohorts. For the 2010-2011 cohort, the five-year post-exit median wage (\$43,602) increased from the one-year post-exit wage (\$37,999) by 15%.

²⁵ Customized Training Program Expenditures Report, nccommunitycolleges.edu/sites/default/files/state-board/program/prog_08_-_customized_training_program_expenditures_report_2016-2017.pdf

FIGURE 53.
NCCCS Customized Training Program Participants and Exiters by Program Year

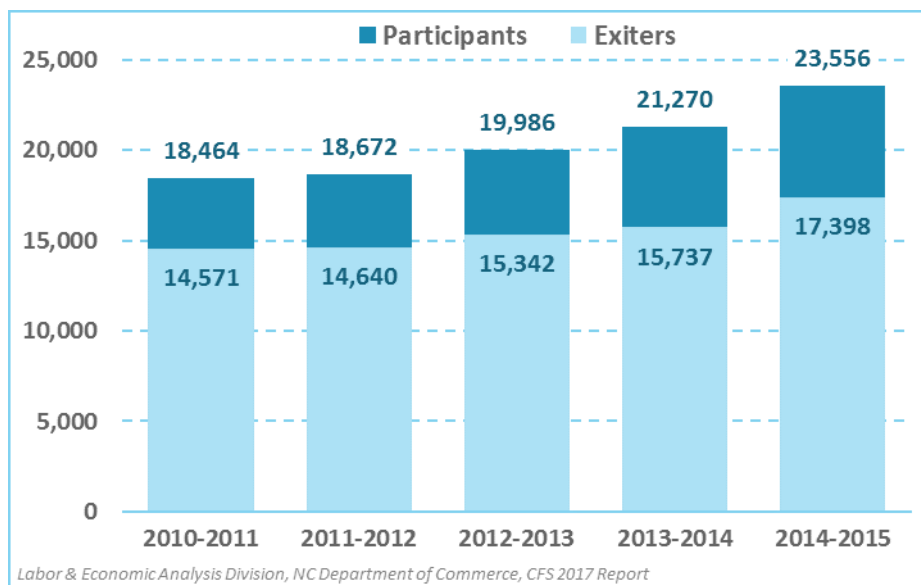
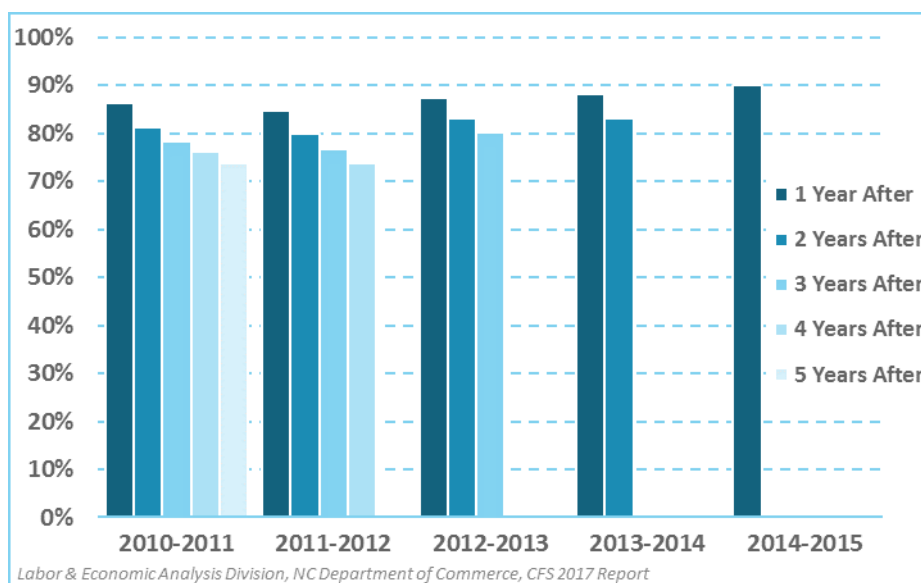


FIGURE 54.
Percentage of NCCCS Customized Training Program Exiters Employed in North Carolina After Exit, by Year of Exit



The post-participation industries of employment for CT program exiters indicate that Manufacturing was the dominant employment industry, with relatively higher wages across the five program years examined. As shown in Figure 56, during the first year after exit for the 2014-2015 cohort, Manufacturing accounted for the largest share of employment (73%; median wage of \$43,213), distantly followed by Professional and Business Services industry (17%; median wage of \$12,585), a sector which includes temporary help services. Both three- and five-year post-exit industry employment rates reflect a similar trend.

By contrast, the 2015 annual median wage in North Carolina for all persons employed in unemployment insurance-covered jobs was \$25,871, while the 2015 federal poverty guideline was \$11,770 for a one-person household and \$15,930 for a two-person household.²⁶

FIGURE 55.
Median Wage of NCCCS Customized Training Program Exiters in North Carolina, by Year of Exit

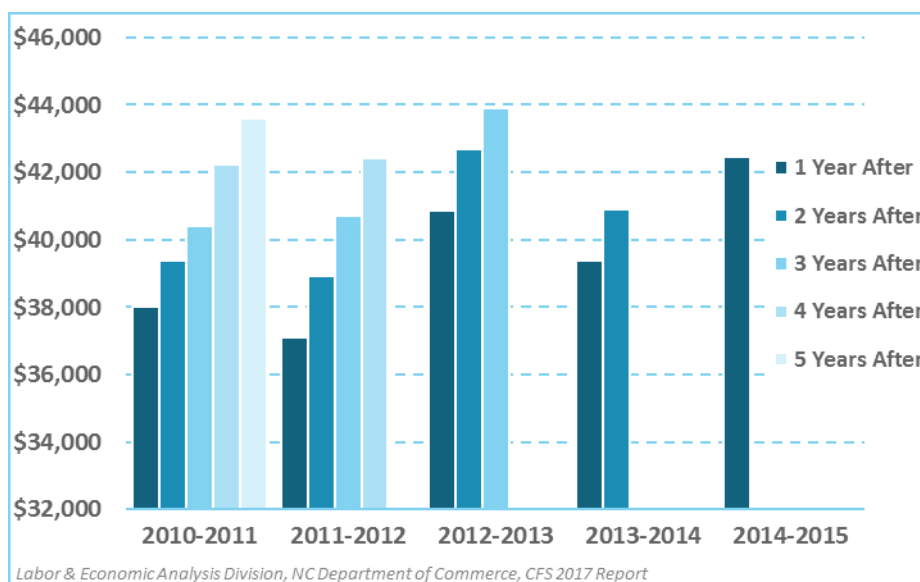
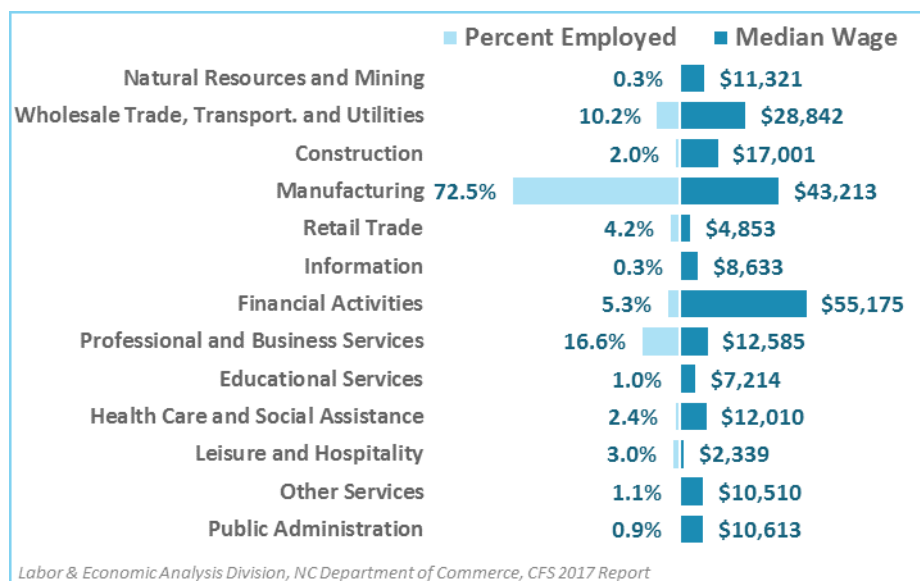


FIGURE 56.
2014-2015 NCCCS Customized Training Exiters One Year After Exit: Percentage Employed and Median Wage by Industry



²⁶ Source of wage data: Common Follow-up System. For comparison, the 2015 annual median wage in North Carolina for all wage-earning residents was \$29,500 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, aspe.hhs.gov/poverty/15poverty.cfm

SUMMARY AND RECOMMENDATIONS

The outcome measures for Customized Training program exiters indicate fairly high post-exit employment rates (ranging from 86% to 90% in the first year after exit) compared to other workforce training programs examined in this report. While the annual median wages had slight fluctuations across program years, CT program exiters enjoyed higher wages relative to exiters in other workforce training programs. Overall, the progressive growth in employment rates and wages demonstrate a positive outcome for the program.

When exiters are followed over longer periods of time, the employment rate tends to decline. This may be due to several factors, including individuals leaving the state to work in other states or finding employment in jobs not covered by North Carolina's unemployment insurance. This is evidenced by the declining employment rate for CT program exiters, down 12% five years after exit for the 2010-2011 cohort. However, employment retention rate for the program completers remains 74% after five years, a rate that is much higher than most other workforce programs. In addition, the median wages for CT program exiters reveal a stable increase over time, representing some of the highest wage outcomes among other workforce training programs. The elevated wages are likely due to the fact that eligible CT program participants were already employed during training.

The dominant industry of employment for CT program exiters reflects a heavy concentration on the high-paying Manufacturing industry, one of the eligible industry clusters for the CT program. Plastic Product, Motor Vehicle Parts, as well as Pharmaceutical and Medicine Manufacturing represented the top three Manufacturing subsectors employing CT program exiters. This demonstrates the alignment of North Carolina's workforce and economic development efforts.

The Professional and Business Services industry accounted for the second largest industry of employment. More than half (52%) of the CT program exiters who were employed in this industry worked in the Employment Services subsector (including Employment Placement Agencies and Temporary Help Services), which generally offers a lower hourly wage without a long-term commitment and employer-provided benefits. This could be attributed to the employers' hiring practices, since temporary workers offer flexibility and possibly savings to employers' payroll costs. Further research is recommended to better understand employers' staffing trends and how temporary help is utilized to fill the labor needs for employers participating in the CT program.

TABLE 14.

NCCCS Customized Training Participants and Exiters, Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Community College System							Common Follow-up System: Evaluative Measures, 2017 Report									
Customized Training Program							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Participants		18,464	18,672	19,986	21,270	23,556	18,464	18,672	19,986	21,270	18,464	18,672	19,986	18,464	18,672	18,464
Exiters		14,571	14,640	15,342	15,737	17,398	14,571	14,640	15,342	15,737	14,571	14,640	15,342	14,571	14,640	14,571
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Exiters Employed In North Carolina	N %	12,577 86%	12,399 85%	13,409 87%	13,858 88%	15,672 90%	11,841 81%	11,702 80%	12,770 83%	13,068 83%	11,419 78%	11,220 77%	12,316 80%	11,106 76%	10,805 74%	10,753 74%
Exiters' Wages in North Carolina	Mean Median	\$42,829 \$37,999	\$41,770 \$37,118	\$45,832 \$40,854	\$45,120 \$39,389	\$47,727 \$42,470	\$44,212 \$39,369	\$43,349 \$38,911	\$47,824 \$42,699	\$47,044 \$40,912	\$46,141 \$40,404	\$45,681 \$40,727	\$49,611 \$43,887	\$47,903 \$42,226	\$47,767 \$42,413	\$49,680 \$43,602
Exiters Enrolled in NC Public Higher Education	N %	2,014 14%	1,891 13%	1,575 10%	1,836 12%	1,828 11%	3,382 23%	3,111 21%	3,668 24%	3,229 21%	2,580 18%	2,644 18%	2,580 17%	2,347 16%	2,270 16%	2,051 14%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	3,342 23%	3,093 21%	2,859 19%	3,205 20%	3,355 19%	4,491 31%	4,097 28%	4,837 32%	4,421 28%	3,509 24%	3,654 25%	3,652 24%	3,309 23%	3,233 22%	2,913 20%
Exiters Enrolled or Employed in NC	N %	12,775 88%	12,583 86%	13,594 89%	13,995 89%	15,828 91%	12,299 84%	12,031 82%	13,088 85%	13,383 85%	11,763 81%	11,475 78%	12,594 82%	11,338 78%	11,086 76%	10,976 75%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.2%	0.5%	0.5%	0.3%	0.3%	0.3%	0.6%	0.2%	0.3%	0.4%	0.6%	0.2%	0.4%	0.7%	0.4%
Wholesale Trade, Transport. and Utilities		10.2%	12.3%	9.6%	12.0%	10.2%	10.6%	10.0%	8.9%	11.0%	9.7%	9.9%	8.7%	9.6%	10.2%	9.6%
Construction		2.6%	2.4%	2.0%	2.0%	2.0%	2.6%	2.5%	2.5%	2.4%	2.7%	2.9%	2.8%	3.1%	3.3%	3.3%
Manufacturing		72.8%	70.6%	73.3%	71.0%	72.5%	70.6%	68.9%	72.5%	69.1%	69.2%	67.4%	71.0%	68.7%	66.0%	67.7%
Retail Trade		4.3%	3.8%	3.2%	4.7%	4.2%	4.8%	4.6%	4.0%	4.7%	5.4%	4.9%	4.3%	5.4%	5.3%	5.2%
Information		0.5%	0.5%	0.3%	0.3%	0.3%	0.5%	0.6%	0.5%	0.5%	0.5%	0.7%	0.5%	0.5%	0.7%	0.6%
Financial Activities		0.9%	3.0%	3.4%	3.1%	5.3%	1.2%	3.0%	3.0%	3.0%	1.5%	3.4%	2.8%	2.1%	3.6%	2.3%
Professional and Business Services		17.9%	16.9%	15.8%	18.7%	16.6%	15.3%	15.6%	14.9%	16.1%	15.7%	15.2%	14.6%	15.4%	13.8%	13.7%
Educational Services		1.2%	1.3%	1.1%	1.4%	1.0%	1.3%	1.6%	1.5%	1.6%	1.4%	1.8%	1.5%	1.6%	2.0%	1.6%
Health Care and Social Assistance		1.8%	2.6%	3.5%	2.2%	2.4%	2.5%	3.0%	3.6%	2.5%	3.0%	3.5%	3.7%	3.4%	3.6%	3.6%
Leisure and Hospitality		2.0%	2.3%	1.8%	2.6%	3.0%	2.3%	2.4%	2.0%	2.7%	2.8%	2.5%	2.2%	2.8%	2.6%	3.0%
Other Services		1.3%	2.0%	0.8%	1.6%	1.1%	1.5%	1.9%	0.9%	1.8%	1.2%	1.6%	1.2%	1.4%	1.6%	1.6%
Public Administration		0.9%	1.1%	0.9%	1.1%	0.9%	1.1%	1.4%	1.1%	1.4%	1.3%	1.5%	1.4%	1.4%	1.9%	1.7%
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$17,802	\$33,016	\$19,746	\$3,572	\$11,321	\$19,611	\$30,044	\$4,294	\$5,951	\$9,936	\$31,173	\$13,718	\$14,039	\$27,061	\$14,392
Wholesale Trade, Transport. and Utilities		\$26,801	\$25,014	\$29,815	\$29,873	\$28,842	\$27,243	\$29,467	\$33,104	\$31,692	\$29,527	\$33,031	\$33,520	\$32,469	\$34,282	\$32,334
Construction		\$19,039	\$17,733	\$12,500	\$10,459	\$17,001	\$21,304	\$20,559	\$18,083	\$15,437	\$20,623	\$24,690	\$24,550	\$19,619	\$26,352	\$25,408
Manufacturing		\$40,523	\$38,405	\$43,201	\$41,992	\$43,213	\$42,281	\$40,981	\$45,265	\$44,284	\$44,069	\$43,314	\$46,554	\$45,894	\$45,310	\$47,504
Retail Trade		\$6,892	\$4,682	\$4,693	\$4,291	\$4,853	\$9,297	\$6,901	\$6,297	\$6,831	\$10,847	\$7,521	\$9,135	\$10,752	\$7,773	\$12,091
Information		\$31,132	\$24,217	\$16,645	\$9,838	\$8,633	\$29,996	\$24,680	\$12,728	\$22,807	\$33,920	\$34,180	\$28,211	\$33,143	\$36,364	\$28,928
Financial Activities		\$18,676	\$34,759	\$37,304	\$46,262	\$55,175	\$16,449	\$27,630	\$36,595	\$50,258	\$14,898	\$26,671	\$41,746	\$20,740	\$42,247	\$31,639
Professional and Business Services		\$13,158	\$12,821	\$12,180	\$11,627	\$12,585	\$14,180	\$12,587	\$13,356	\$12,494	\$13,644	\$13,039	\$11,813	\$14,245	\$12,015	\$13,492
Educational Services		\$3,698	\$5,814	\$7,576	\$4,028	\$7,214	\$5,794	\$9,755	\$7,886	\$7,836	\$8,062	\$13,553	\$15,405	\$9,351	\$14,247	\$14,959
Health Care and Social Assistance		\$9,855	\$12,270	\$22,187	\$9,512	\$12,010	\$14,597	\$21,537	\$22,009	\$13,430	\$20,081	\$20,032	\$23,652	\$20,159	\$22,253	\$19,841
Leisure and Hospitality		\$2,604	\$2,804	\$2,767	\$2,568	\$2,339	\$3,910	\$3,074	\$3,030	\$3,722	\$3,869	\$4,116	\$3,178	\$4,921	\$3,939	\$5,010
Other Services		\$18,190	\$25,654	\$15,630	\$18,258	\$10,510	\$16,784	\$15,316	\$11,860	\$15,666	\$7,045	\$20,709	\$11,046	\$6,600	\$19,704	\$7,544
Public Administration		\$20,275	\$14,959	\$10,100	\$16,366	\$10,613	\$23,237	\$22,174	\$14,249	\$24,072	\$23,874	\$24,676	\$18,068	\$27,859	\$27,231	\$30,304
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$24,498	\$34,014	\$20,993	\$12,368	\$32,447	\$22,945	\$28,900	\$13,178	\$14,733	\$16,142	\$27,249	\$18,099	\$18,364	\$24,997	\$20,692
Wholesale Trade, Transport. and Utilities		\$32,764	\$30,309	\$37,225	\$32,395	\$34,635	\$34,366	\$35,579	\$41,267	\$36,188	\$37,961	\$39,203	\$42,596	\$39,789	\$40,031	\$41,392
Construction		\$23,602	\$24,213	\$19,482	\$17,136	\$22,967	\$33,576	\$25,808	\$23,347	\$21,374	\$32,249	\$33,583	\$28,221	\$29,225	\$30,241	\$35,292
Manufacturing		\$44,504	\$42,446	\$47,400	\$46,201	\$46,948	\$46,785	\$44,992	\$49,780	\$48,677	\$49,024	\$47,827	\$51,438	\$50,768	\$50,440	\$52,491
Retail Trade		\$13,605	\$13,558	\$10,452	\$9,770	\$12,344	\$15,416	\$14,920	\$12,348	\$12,848	\$16,762	\$16,288	\$14,588	\$17,284	\$16,433	\$18,200
Information		\$51,219	\$24,483	\$26,802	\$15,953	\$17,931	\$47,517	\$35,018	\$27,132	\$29,114	\$51,869	\$39,262	\$37,455	\$43,823	\$41,846	\$42,548
Financial Activities		\$26,334	\$35,358	\$39,063	\$51,525	\$60,626	\$24,842	\$31,634	\$38,623	\$56,651	\$24,167	\$31,048	\$46,012	\$25,278	\$45,430	\$38,658
Professional and Business Services		\$20,875	\$20,720	\$21,848	\$22,175	\$23,698	\$21,658	\$22,486	\$24,286	\$25,233	\$23,777	\$22,055	\$25,624	\$24,521	\$21,918	\$25,844
Educational Services		\$14,111	\$14,579	\$17,946	\$14,291	\$16,886	\$15,737	\$16,582	\$18,024	\$17,188	\$18,167	\$18,836	\$22,099	\$19,583	\$19,813	\$22,693
Health Care and Social Assistance		\$18,405	\$19,862	\$24,228	\$26,838	\$22,493	\$19,336	\$25,233	\$25,098	\$27,415	\$23,901	\$25,941	\$27,576	\$25,198	\$27,863	\$27,600
Leisure and Hospitality		\$6,944	\$6,775	\$5,720	\$5,784	\$5,691	\$8,616	\$7,710	\$7,258	\$8,068	\$9,314	\$8,885	\$7,393	\$11,136	\$9,594	\$12,330
Other Services		\$24,954	\$28,316	\$21,425	\$20,839	\$20,538	\$24,482	\$25,857	\$20,731	\$23,095	\$17,450	\$25,340	\$19,073	\$18,346	\$29,158	\$19,468
Public Administration		\$21,910	\$20,081	\$15,147	\$19,663	\$18,971	\$23,338	\$22,992	\$18,002	\$24,352	\$23,422	\$24,371	\$19,002	\$25,241	\$25,346	\$26,939

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

OVERVIEW OF APPRENTICESHIP PROGRAMS

ApprenticeshipNC (formerly known as NCWorks Apprenticeship) is a State Approving Agency for the US Department of Labor for workforce training program certification. The purpose of the Apprenticeship program is to provide individuals the opportunity to obtain occupational training and practical skills that will address the skills gap while providing an educational opportunity to attain a fundamental understanding of an occupation. ApprenticeshipNC assists North Carolina's employers in developing their own specialized, fully trained, and productive workforce to compete in a global economy.

The Fitzgerald Act of 1937 established a national apprenticeship program, and North Carolina's apprenticeship programs are authorized by and operate under the requirements and guidelines outlined under North Carolina General Statute Article 1 of Chapter 115D. In North Carolina, apprenticeship is a voluntary system of employer-driven employee training. Employers who agree to sponsor apprenticeship programs take on the responsibilities and obligations of the program. Employers who participate are required to have an approved plan that includes on-the-job training requirements, technical instruction requirements, defined training hours, and wage scale progression for participation to reward increased employee capability and skill. Wage rates for apprentices typically begin at about half the rate of experienced journey workers, then rise as the apprentice gains skills and competencies through the program. At the successful completion of on-the-job as well as instructional learning, apprentices receive an industry and federally recognized Journey-worker certificate that certifies occupational proficiency.

Apprenticeship programs typically take four years to complete, and are established in almost 1,300 jobs and 700 employers in North Carolina. Apprenticeship programs are provided in a diverse set of industries and occupations, from advanced manufacturing to network maintenance to public administration.

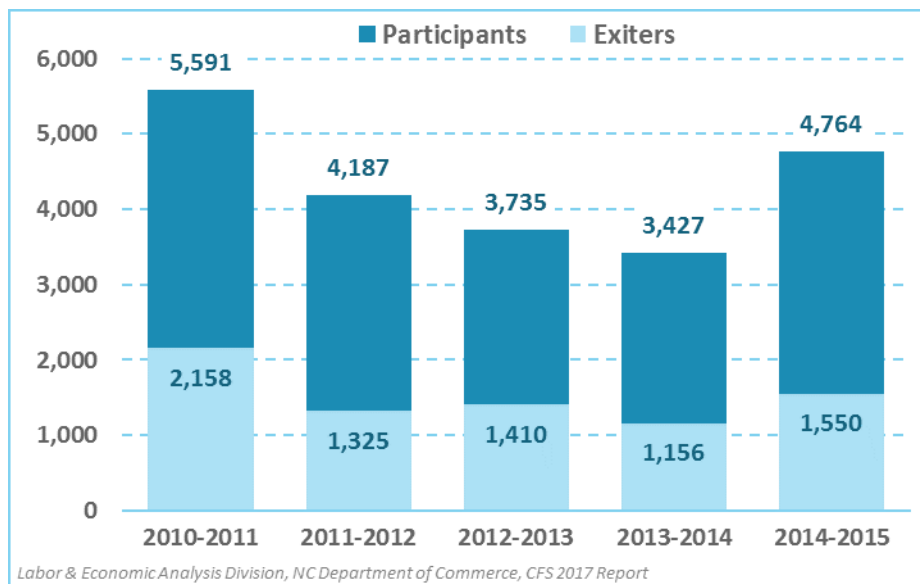
On November 1, 2017, the Apprenticeship program was transferred from the North Carolina Department of Commerce to the North Carolina Community College System Office. As a result, the staff and resources of the Apprenticeship program and the advisory Apprenticeship Council were transitioned to the System Office.²⁷ The NC Community College System now oversees the development and maintenance of Registered Apprenticeship programs throughout North Carolina under the guidance of the US Department of Labor. The Apprenticeship Council, an advisory group of professionals from across the state, provides guidance to the State Board of Community Colleges and helps formulate policy for the statewide Apprenticeship program.

APPRENTICESHIP PROGRAM OUTCOMES

As shown in Figure 57, participation in the ApprenticeshipNC program declined between the 2010-2011 and 2013-2014 program years, before rising again in the following year (*also see Table 15*). The economic downturn in 2008 affected participation in apprenticeships over the subsequent years, but the number of participants rose in the 2014-2015 program year.

²⁷ See NC Session Law 2017-57, Senate Bill 257, Section 15.13. (a), ncoah.com/rules/rrc/meetings/Agendas/August%202017/04%20NCAC%2022.pdf

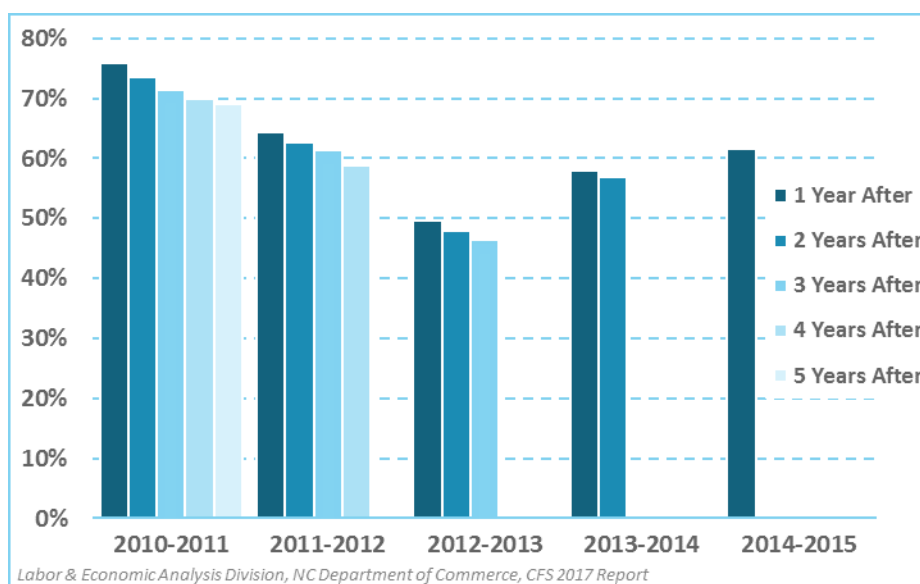
FIGURE 57.
Apprenticeship Program Participants and Exiters by Program Year



Participants who exited the apprenticeship program were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit.

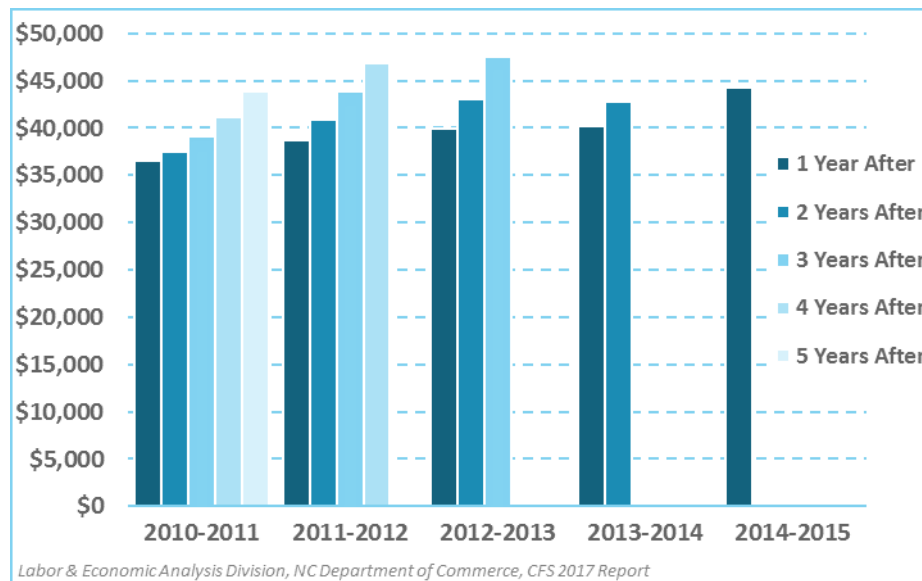
One-year post-exit employment rates, shown in Figure 58 and Table 15, declined from a high of 76% for exiters in the 2010-2011 program year to a low of 50% for exiters in the 2012-2013 program year, before increasing again for the subsequent two cohorts. When the exiting cohorts were followed over multiple years, the cohort employment rates showed a slight decline. Of the 2010-2011 exiters, 76% were employed in the first year after exit while 69% were employed after year five.

FIGURE 58.
Percentage of Apprenticeship Program Exiters Employed in North Carolina After Exit, by Year of Exit



As shown in Figure 59, one-year post-exit median wages increased for each successive cohort, ranging from \$36,491 for the 2010-2011 program year to \$44,254 for 2014-2015. Over time, wages also increased within each cohort. In the 2010-2011 cohort, post-exit wages increased by 20%, from \$36,491 one year after exit to \$43,842 five years after exit. This is well above \$25,871, the 2015 median annual wage in North Carolina for all wage earners covered in unemployment insurance.²⁸

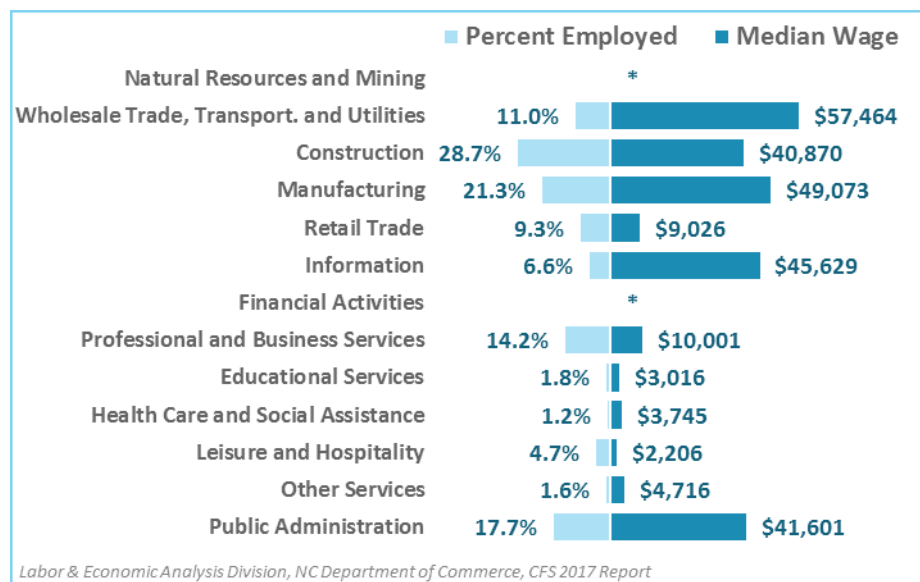
FIGURE 59.
Median Wage of Apprenticeship Program Exiters in North Carolina, by Year of Exit



Industries of employment for program exiters reveals some variability across cohorts. Figure 60 shows that one year after exit, large percentages of the 2014-2015 cohort exiters were found to be employed in Construction (29%), Manufacturing (21%), and Public Administration (18%). Other industries that employed former apprenticeship program participants included Professional and Business Services (14%), Wholesale Trade, Transportation, and Utilities (11%), and Retail Trade (9%). Prior cohorts, however, showed some notable differences, with a much higher level of employment in Public Administration in the 2010-2011 cohort (65% for year one after exit and 54% at year five). Employment in this sector dropped to 18% for the more recent 2014-2015 cohort (*Table 15*).

²⁸ Source of wage data: Common Follow-up System. For comparison, the 2015 median annual wage for all wage earners in North Carolina was \$29,500 (American Community Survey).

FIGURE 60.
2014-2015 Apprenticeship Exiters One Year After Exit:
Percentage Employed and Median Wage by Industry



Post-exit participation in public higher education (*Table 15*) indicates a downward trend. The percentage of exiters enrolled in NC public higher education dropped from 44% one year after exit for the 2010-2011 program year to 16% for 2014-2015. Over time, post-exit enrollment continued to decline after year five for the 2010-2011 cohort but at a slower pace, from 44% to 31%.

SUMMARY AND RECOMMENDATIONS

Overall, outcome measures for Apprenticeship program exiters show that short-term employment fluctuated across cohorts, but median annual wages increased.

When exiters are followed over longer periods of time, the rate of employment in North Carolina tends to decline. This decline could be attributed to several factors including individuals not sustaining employment, moving out of state, or finding employment in jobs not covered by North Carolina's unemployment insurance laws. However, median wages increase over time, demonstrating some of the highest wage outcomes of any workforce development programs examined in this report. These wage progressions are not unexpected, as participants are employed during program participation and experiencing rising wage as a result of successfully completing training hours and achieving skill gains. It is worth mentioning that increases in program participation in 2014-2015 were likely achieved in part by eliminating the fee requirement for program participation.

It is recommended that additional analyses of the Registered Apprenticeship program be undertaken to further the understanding of the specific jobs that lead to the greatest wage progressions and employment stability.

TABLE 15.

Apprenticeship Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry

North Carolina Community College System							Common Follow-up System: Evaluative Measures, 2017 Report										
Apprenticeship Program							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011	
Participants		5,591	4,187	3,735	3,427	4,764	5,591	4,187	3,735	3,427	5,591	4,187	3,735	5,591	4,187	5,591	
Exiters		2,158	1,325	1,410	1,156	1,550	2,158	1,325	1,410	1,156	2,158	1,325	1,410	2,158	1,325	2,158	
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Exiters Employed In North Carolina	N	1,638	854	699	669	955	1,587	831	676	657	1,539	814	655	1,508	779	1,490	
	%	76%	64%	50%	58%	62%	74%	63%	48%	57%	71%	61%	46%	70%	59%	69%	
Exiters' Wages in North Carolina		Mean Median	\$37,571 \$36,491	\$42,077 \$38,773	\$43,331 \$39,940	\$43,705 \$40,255	\$46,102 \$44,254	\$38,358 \$37,465	\$45,501 \$40,931	\$46,912 \$43,102	\$46,712 \$42,786	\$40,422 \$39,159	\$48,053 \$43,851	\$51,643 \$47,490	\$42,238 \$41,159	\$51,013 \$46,844	\$45,085 \$43,842
Exiters Enrolled in NC Public Higher Education		N %	946 44%	298 22%	255 18%	207 18%	254 16%	915 42%	250 19%	218 15%	170 15%	874 41%	242 18%	202 14%	741 34%	219 17%	678 31%
Exiters Enrolled in NC Public Education, Employment, or Training Program		N %	1,072 50%	416 31%	355 25%	297 26%	388 25%	1,044 48%	337 25%	314 22%	260 22%	971 45%	333 25%	280 20%	845 39%	299 23%	786 36%
Exiters Enrolled or Employed in NC		N %	1,717 80%	924 70%	797 57%	733 63%	1,028 66%	1,656 77%	861 65%	744 53%	692 60%	1,594 74%	842 64%	711 50%	1,557 72%	815 62%	1,517 70%
Exiters' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining		*					*				*			0.8%		0.7%	
Wholesale Trade, Transport. and Utilities		5.6%					5.3%				7.0%			6.7%		7.5%	
Construction		9.8%					9.9%				9.5%			9.6%		9.1%	
Manufacturing		7.4%					9.5%				9.8%			11.1%		11.8%	
Retail Trade		5.9%					6.4%				7.1%			7.8%		7.8%	
Information		5.5%					4.9%				4.7%			4.8%		4.9%	
Financial Activities		1.2%					1.4%				1.4%			1.7%		2.2%	
Professional and Business Services		15.0%					16.9%				18.5%			17.6%		17.8%	
Educational Services		3.8%					5.0%				5.5%			5.6%		6.0%	
Health Care and Social Assistance		6.6%					7.7%				7.0%			7.8%		7.3%	
Leisure and Hospitality		4.6%					3.7%				4.2%			4.6%		3.8%	
Other Services		0.8%					0.9%				0.9%			0.9%		1.4%	
Public Administration		65.1%					59.9%				58.2%			55.8%		53.6%	
Exiters' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining		*					*				*			\$5,529		\$7,446	
Wholesale Trade, Transport. and Utilities		\$5,233					\$8,130				\$31,431			\$33,263		\$32,103	
Construction		\$27,043					\$22,170				\$28,449			\$29,216		\$37,491	
Manufacturing		\$43,000					\$41,299				\$44,597			\$45,675		\$44,298	
Retail Trade		\$2,789					\$4,479				\$5,084			\$6,436		\$6,269	
Information		\$39,961					\$41,508				\$43,229			\$46,750		\$50,770	
Financial Activities		\$7,871					\$3,023				\$10,952			\$10,016		\$6,212	
Professional and Business Services		\$7,948					\$7,599				\$8,434			\$6,746		\$9,396	
Educational Services		\$3,938					\$1,959				\$2,061			\$2,728		\$4,160	
Health Care and Social Assistance		\$9,541					\$8,119				\$10,374			\$8,480		\$12,975	
Leisure and Hospitality		\$2,010					\$1,751				\$4,051			\$3,305		\$3,384	
Other Services		\$4,610					\$4,662				\$3,810			\$5,271		\$3,886	
Public Administration		\$34,512					\$36,702				\$38,599			\$41,000		\$44,057	
Exiters' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining		*					*				*			\$11,196		\$10,745	
Wholesale Trade, Transport. and Utilities		\$19,291					\$21,845				\$40,708			\$46,573		\$45,028	
Construction		\$30,973					\$29,408				\$31,413			\$33,184		\$41,273	
Manufacturing		\$46,863					\$44,160				\$48,047			\$46,441		\$45,402	
Retail Trade		\$5,702					\$8,021				\$10,080			\$12,031		\$12,427	
Information		\$36,188					\$40,246				\$42,278			\$43,154		\$46,283	
Financial Activities		\$12,567					\$13,157				\$17,846			\$17,694		\$18,421	
Professional and Business Services		\$21,385					\$21,277				\$13,307			\$14,252		\$16,947	
Educational Services		\$13,794					\$10,721				\$11,078			\$12,454		\$13,461	
Health Care and Social Assistance		\$10,381					\$11,851				\$13,428			\$12,715		\$15,511	
Leisure and Hospitality		\$3,632					\$4,779				\$5,889			\$6,731		\$7,665	
Other Services		\$7,062					\$6,219				\$5,932			\$8,593		\$8,587	
Public Administration		\$34,400					\$36,243				\$37,969			\$40,323		\$43,292	

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

UNIVERSITY OF NORTH CAROLINA SYSTEM (UNC)

OVERVIEW OF DEGREE PROGRAMS

North Carolina's public university system offers an array of higher education programs through 16 campuses around the state.²⁹ Each year, over 30,000 students graduate from more than 200 academic degree programs offered by the UNC system.³⁰ Most UNC curriculum program participants are enrolled in academic degree programs; fewer are working toward other post-master's, post-baccalaureate, or post-secondary credentials. This evaluation report focuses on the outcomes of UNC's bachelor's, master's, and doctoral degree programs.

Bachelor's programs are typically completed within four years of matriculation by full-time students. While many bachelor's program enrollees begin their studies shortly after completing secondary education, other students are enrolled as sophomores or juniors after transferring from another institution of higher education, or enter higher education later in the life course. Master's programs are typically completed in one to two years by full-time students, depending on the program. Most students enroll in master's programs after obtaining a bachelor's degree; however, some UNC campuses offer dual-degree programs that allow students to satisfy some master's degree requirements before obtaining their bachelor's.

Doctoral programs fall under two categories: research and professional practice. Research programs lead to the attainment of a Doctor of Philosophy (PhD) degree and prepare students to conduct academic research in their field of study. Professional practice programs lead to the attainment of a credential in fields such as law (JD) and medicine (MD) and prepare students for professional employment in their field, although individuals often need to satisfy additional requirements, such as passing an examination or completing an internship, to receive a license to practice.

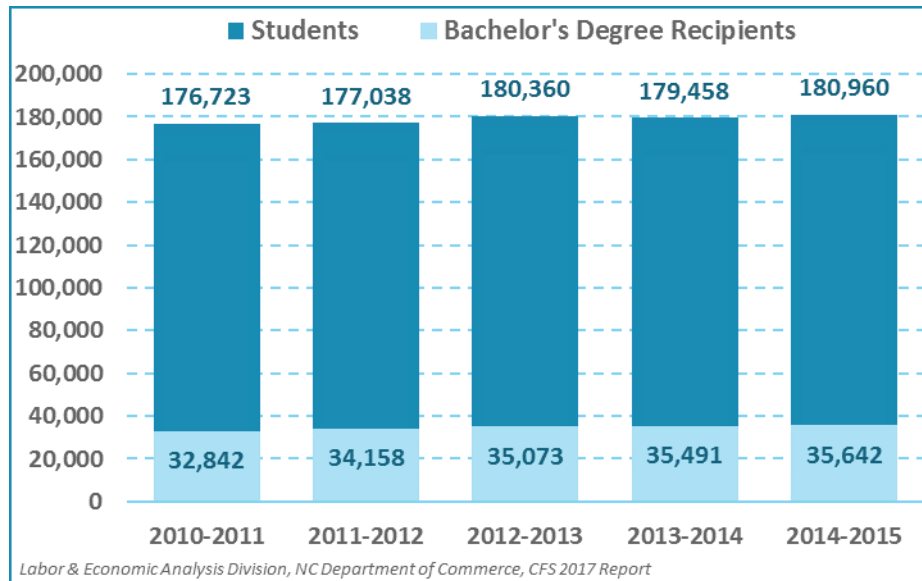
²⁹ UNC also operates the NC School of Science of Mathematics, a residential high school, and offers a high school program through the UNC School of the Arts.

³⁰ The University of North Carolina System website, northcarolina.edu/

UNC BACHELOR'S DEGREE PROGRAM OUTCOMES

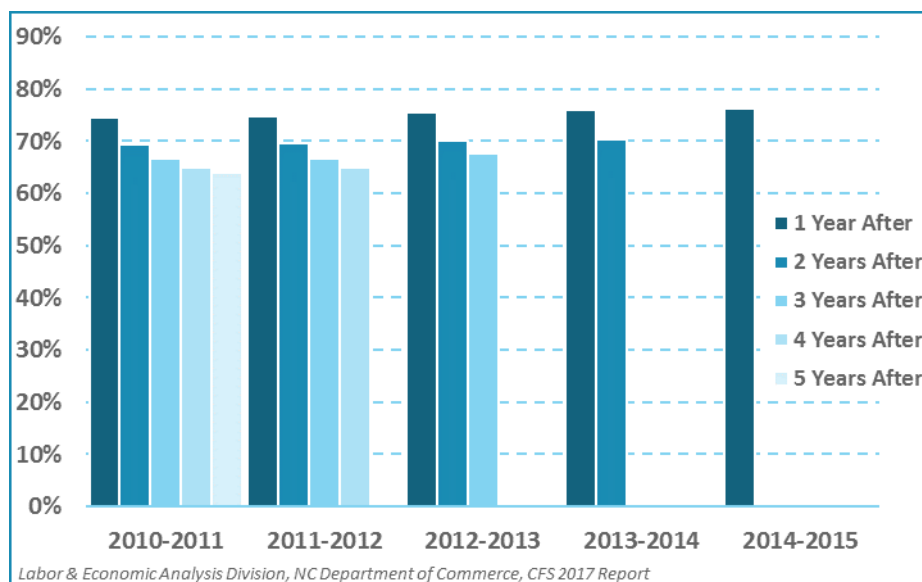
As shown in Figure 61, enrollment in bachelor's degree programs increased slightly during the period studied, with the number of students increasing from 176,723 in the 2010-2011 program year to 180,960 in 2014-2015. Students who were recorded as having graduated from a bachelor's program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion. The number of bachelor's program completers also trended upward during this period.

FIGURE 61.
UNC Bachelor's Degree Program Participants and Completers by Program Year



Figures 62 and 63 show employment and wage outcomes at one through five years after graduation, for all graduating cohorts from 2010-2011 to 2014-2015. The rate of employment in North Carolina one year after graduation was relatively unchanged across cohorts, ranging from 75% to 76%. However, the rate at which bachelor's graduates subsequently enrolled in public education, employment, or training programs declined somewhat from 24% for the 2010-2011 cohort to 21% for the 2014-2015 cohort (*Table 16*). Wage earnings one year following graduation increased across cohorts, with median wage earnings increasing from \$18,273 for the cohort graduating in 2010-2011 to \$22,000 for the 2014-2015 cohort.

FIGURE 62.
Percentage of UNC Bachelor's Program Completers Employed in North Carolina
After Degree Conferral, by Year of Graduation



Bachelor's recipients saw their wages increase in each year after graduation, while the share employed in North Carolina declined; for instance, the employment rate for 2010-2011 graduates declined from 75% after one year to 64% after five years.

Bachelor's graduates saw high rates of employment in the low-paying Retail Trade and Leisure and Hospitality industries in their first year after graduation, as well as in industries paying relatively higher wages such as Professional and Business Services, Educational Services, and Health Care and Social Assistance (Figure 64).

FIGURE 63.
Median Wage of UNC Bachelor's Program Completers in North Carolina,
by Year of Graduation

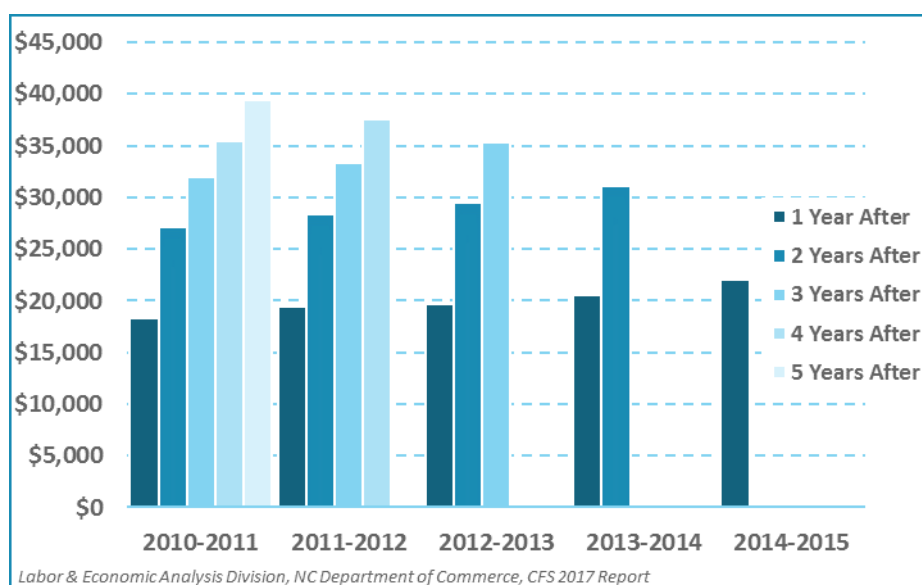
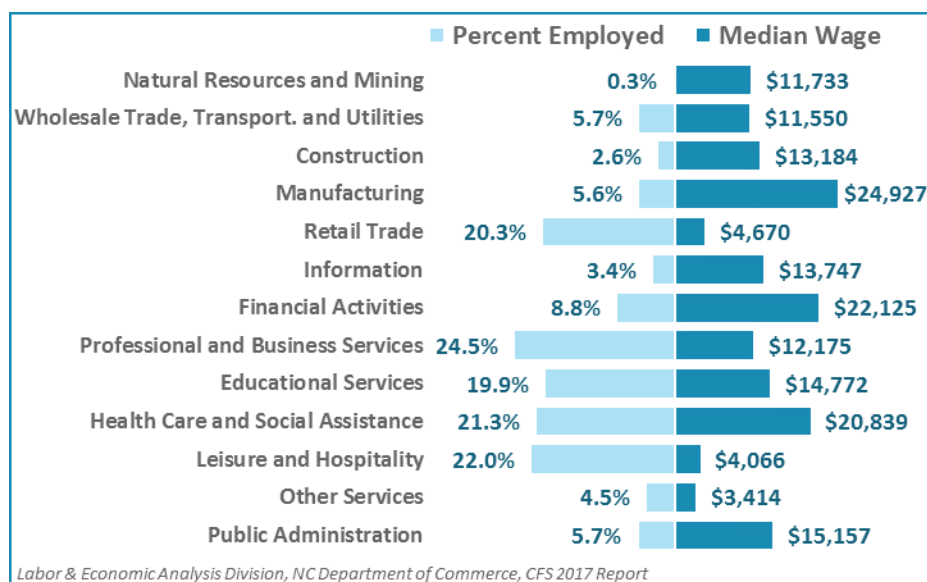


FIGURE 64.
2014-2015 UNC Bachelor's Program Completers:
One-Year Post Outcomes by Industry



Wage and employment outcomes also varied widely by program of study. After one year, 2010-2011 graduates saw median wages ranging from \$9,818 for philosophy and religious studies majors to \$38,522 for health professions and related programs majors. By the fifth year after graduation, computer and information sciences and support services majors earned a median wage of \$69,356, displacing health professions and related programs (\$52,297) as the top-earning major (*see Appendix Table 13*). Graduates of philosophy and religious studies in 2010-2011 saw their wages increase to \$28,167 five years after receiving a bachelor's.

Overall, graduates of UNC's bachelor's programs showed steady rates of employment and positive wage growth over time. However, wages varied considerably by industry.

TABLE 16.

UNC Bachelor's Degree Program Participants and Completers, Outcomes One Through Five Years After Exit, Overall and By Industry

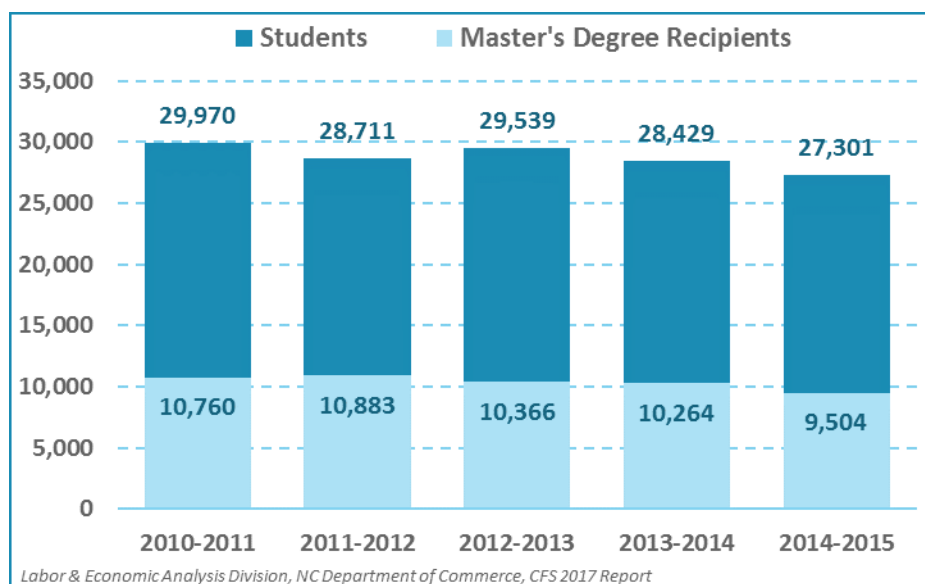
University Of North Carolina System							Common Follow-up System: Evaluative Measures, 2017 Report										
Bachelor's Degree																	
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011	
Students		176,723	177,038	180,360	179,458	180,960	176,723	177,038	180,360	179,458	176,723	177,038	180,360	176,723	177,038	176,723	
Bachelor's Degree Recipients		32,842	34,158	35,073	35,491	35,642	32,842	34,158	35,073	35,491	32,842	34,158	35,073	32,842	34,158	32,842	
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Bachelor's Degree Recipients Employed in North Carolina		N %	24,468 75%	25,572 75%	26,454 75%	26,980 76%	27,207 76%	22,791 69%	23,756 70%	24,589 70%	24,983 70%	21,921 67%	22,757 67%	23,703 68%	21,334 65%	22,188 65%	20,994 64%
Bachelor's Degree Recipients' Wages in North Carolina		Mean Median	\$21,426 \$18,273	\$22,376 \$19,419	\$22,777 \$19,698	\$24,040 \$20,583	\$25,658 \$22,000	\$28,130 \$27,105	\$28,772 \$28,375	\$30,092 \$29,515	\$32,092 \$31,125	\$32,348 \$31,954	\$33,657 \$33,335	\$35,306 \$35,282	\$36,838 \$35,458	\$38,493 \$37,531	\$42,000 \$39,423
Graduates Enrolled in NC Public Higher Education		N %	6,193 19%	6,105 18%	6,208 18%	5,973 17%	6,071 17%	6,356 19%	6,166 18%	6,236 18%	6,060 17%	5,462 17%	5,407 16%	5,390 15%	4,523 14%	4,481 13%	3,676 11%
Graduates Enrolled in NC Public Education, Employment, or Training Program		N %	7,955 24%	7,826 23%	7,829 22%	7,731 22%	7,531 21%	7,553 23%	7,317 21%	7,449 21%	7,304 21%	6,412 20%	6,506 19%	6,458 18%	5,503 17%	5,516 16%	4,547 14%
Graduates Enrolled or Employed in NC		N %	25,962 79%	27,015 79%	27,891 80%	28,342 80%	28,426 80%	24,191 74%	25,135 74%	25,872 74%	26,222 74%	23,066 70%	23,931 70%	24,708 70%	22,243 68%	23,079 68%	21,586 66%
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining			0.4%	0.4%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%
Wholesale Trade, Transport. and Utilities			5.2%	5.5%	5.4%	5.9%	5.7%	5.9%	5.5%	5.6%	6.0%	5.5%	5.8%	5.9%	5.7%	6.0%	5.9%
Construction			2.7%	2.5%	2.4%	2.5%	2.6%	2.6%	2.4%	2.4%	2.6%	2.6%	2.6%	2.5%	2.8%	2.7%	2.8%
Manufacturing			4.8%	5.3%	5.6%	5.5%	5.6%	5.7%	6.2%	6.4%	6.6%	6.1%	6.7%	7.1%	6.4%	7.0%	6.8%
Retail Trade			22.6%	22.4%	21.9%	22.1%	20.3%	16.4%	16.7%	15.8%	15.4%	13.8%	13.7%	12.8%	12.2%	11.4%	10.3%
Information			3.3%	3.1%	3.2%	3.4%	3.4%	3.2%	3.3%	3.5%	3.7%	3.3%	3.6%	3.6%	3.7%	3.7%	3.5%
Financial Activities			7.9%	7.8%	8.1%	8.4%	8.8%	8.7%	8.7%	9.2%	9.6%	9.2%	9.1%	9.6%	9.7%	9.4%	9.9%
Professional and Business Services			23.7%	23.6%	24.5%	25.4%	24.5%	24.0%	23.5%	23.8%	23.7%	22.6%	23.1%	22.4%	22.5%	21.9%	21.7%
Educational Services			21.1%	21.9%	21.1%	20.2%	19.9%	21.2%	21.7%	21.2%	20.0%	21.8%	22.2%	21.8%	22.2%	22.4%	22.0%
Health Care and Social Assistance			19.6%	19.6%	20.1%	19.4%	21.3%	20.5%	20.2%	20.5%	20.5%	21.0%	20.5%	20.7%	21.1%	20.7%	21.7%
Leisure and Hospitality			23.1%	22.6%	22.6%	22.3%	22.0%	15.8%	15.4%	15.3%	15.3%	12.9%	11.7%	12.4%	10.8%	10.5%	9.6%
Other Services			4.4%	4.7%	4.5%	4.5%	4.5%	3.5%	3.4%	3.6%	3.6%	3.2%	3.2%	3.2%	3.0%	2.9%	2.8%
Public Administration			4.9%	5.5%	5.4%	5.4%	5.7%	5.5%	5.9%	6.2%	6.3%	6.2%	6.7%	6.9%	6.5%	7.1%	6.9%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining			\$4,951	\$6,953	\$6,600	\$6,403	\$11,733	\$11,197	\$9,202	\$10,417	\$17,536	\$14,952	\$16,581	\$16,000	\$18,836	\$25,386	\$27,295
Wholesale Trade, Transport. and Utilities			\$12,276	\$11,481	\$11,957	\$12,000	\$11,550	\$20,043	\$21,312	\$22,730	\$21,322	\$26,446	\$27,284	\$29,210	\$32,800	\$32,351	\$36,895
Construction			\$10,641	\$13,257	\$14,565	\$15,012	\$13,184	\$21,209	\$24,156	\$24,643	\$25,327	\$28,182	\$29,137	\$33,331	\$35,887	\$32,137	\$39,257
Manufacturing			\$20,546	\$25,360	\$26,561	\$23,848	\$24,927	\$35,375	\$35,467	\$37,996	\$37,160	\$41,803	\$41,073	\$42,087	\$44,832	\$46,857	\$47,863
Retail Trade			\$4,699	\$4,819	\$4,660	\$4,800	\$4,670	\$6,599	\$6,167	\$7,106	\$7,049	\$7,991	\$7,091	\$7,674	\$9,105	\$8,929	\$11,361
Information			\$10,857	\$11,060	\$11,154	\$13,493	\$13,747	\$20,531	\$18,909	\$22,090	\$22,801	\$26,239	\$24,179	\$27,885	\$26,738	\$30,111	\$34,422
Financial Activities			\$16,387	\$17,527	\$17,265	\$20,016	\$22,125	\$25,087	\$26,576	\$27,317	\$30,702	\$29,255	\$31,200	\$33,992	\$32,704	\$36,725	\$38,204
Professional and Business Services			\$10,363	\$10,355	\$10,333	\$11,300	\$12,175	\$17,093	\$17,853	\$18,181	\$19,994	\$22,849	\$22,710	\$24,728	\$27,763	\$28,769	\$34,349
Educational Services			\$14,229	\$16,551	\$16,909	\$15,909	\$14,772	\$26,437	\$29,437	\$28,840	\$29,905	\$30,990	\$33,010	\$34,894	\$33,812	\$36,435	\$36,935
Health Care and Social Assistance			\$18,372	\$18,732	\$18,611	\$19,430	\$20,839	\$24,029	\$24,436	\$25,044	\$26,287	\$26,913	\$27,131	\$28,302	\$30,886	\$31,884	\$35,164
Leisure and Hospitality			\$4,212	\$4,131	\$4,121	\$4,342	\$4,066	\$5,306	\$4,970	\$5,428	\$5,439	\$5,668	\$6,603	\$5,893	\$6,450	\$6,645	\$7,604
Other Services			\$3,343	\$3,692	\$3,217	\$3,229	\$3,414	\$5,099	\$5,854	\$4,942	\$5,174	\$6,331	\$6,913	\$6,000	\$7,924	\$8,543	\$9,074
Public Administration			\$8,069	\$11,569	\$11,554	\$12,746	\$15,157	\$21,696	\$26,962	\$25,934	\$28,549	\$29,201	\$30,554	\$32,228	\$33,239	\$34,079	\$36,058
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After	
Natural Resources and Mining			\$10,542	\$11,745	\$13,370	\$12,953	\$14,363	\$15,734	\$16,014	\$16,174	\$22,258	\$19,829	\$20,326	\$21,247	\$25,334	\$26,230	\$31,195
Wholesale Trade, Transport. and Utilities			\$18,357	\$17,239	\$17,932	\$18,534	\$18,478	\$24,735	\$25,304	\$25,995	\$25,950	\$29,887	\$30,767	\$31,834	\$35,523	\$35,217	\$40,656
Construction			\$17,264	\$18,571	\$19,393	\$20,586	\$20,151	\$23,715	\$26,152	\$26,462	\$28,496	\$29,301	\$30,935	\$32,665	\$34,347	\$36,359	\$40,449
Manufacturing			\$25,820	\$29,254	\$29,636	\$29,152	\$30,280	\$35,897	\$36,035	\$37,987	\$37,212	\$41,647	\$41,693	\$42,144	\$44,886	\$46,338	\$47,472
Retail Trade			\$8,249	\$8,333	\$8,232	\$8,259	\$8,538	\$12,146	\$11,855	\$12,099	\$12,623	\$14,861	\$14,191	\$14,718	\$16,634	\$16,885	\$20,478
Information			\$15,664	\$16,467	\$17,905	\$19,191	\$19,602	\$23,881	\$22,745	\$26,010	\$27,731	\$28,167	\$27,892	\$30,698	\$30,841	\$33,061	\$36,377
Financial Activities			\$19,893	\$21,282	\$21,177	\$23,685	\$26,003	\$26,100	\$28,042	\$28,628	\$32,437	\$30,923	\$33,438	\$35,303	\$35,078	\$39,103	\$41,155
Professional and Business Services			\$15,341	\$15,421	\$15,856	\$16,890	\$18,159	\$21,235	\$22,070	\$22,792	\$24,568	\$26,512	\$26,985	\$28,543	\$30,911	\$32,032	\$37,017
Educational Services			\$16,497	\$17,599	\$17,691	\$18,062	\$18,440	\$21,726	\$22,435	\$22,838	\$24,347	\$24,372	\$25,614	\$26,589	\$27,171	\$28,867	\$30,171
Health Care and Social Assistance			\$23,888	\$23,976	\$24,196	\$25,470	\$26,851	\$28,401	\$28,076	\$28,882	\$30,595	\$30,262	\$29,932	\$31,862	\$33,292	\$33,883	\$37,642
Leisure and Hospitality			\$7,148	\$7,106	\$7,217	\$8,217	\$8,377	\$9,462	\$9,225	\$9,952	\$10,944	\$10,825	\$11,833	\$11,635	\$12,687	\$12,869	\$14,337
Other Services			\$7,331	\$7,877	\$7,472	\$7,108	\$7,966	\$10,462	\$12,024	\$10,994	\$10,611	\$12,857	\$14,293	\$13,390	\$15,485	\$16,560	\$18,025
Public Administration			\$15,114	\$16,922	\$16,633	\$17,507	\$19,453	\$22,219	\$24,760	\$24,409	\$25,794	\$26,165	\$27,766	\$28,892	\$29,652	\$31,381	\$33,055

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

UNC MASTER'S DEGREE PROGRAM OUTCOMES

As shown in Figure 65, enrollment in UNC master's programs showed a slight decrease in enrollment and graduation between the 2010-2011 and 2014-2015 program years. Students who were recorded as having graduated from a master's program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion.

FIGURE 65.
UNC Master's Degree Program Participants and Completers by Program Year



Post-masters employment in North Carolina at one year following completion stayed fairly stable across the cohorts examined, with only small fluctuations. However, these employment rates declined with each year after graduation (*Figure 66*).

Post-graduation enrollment in higher education stayed stable across cohorts at 10%-12% one year after degree completion, and declined slightly over time within each cohort (*Table 17*).

FIGURE 66.
UNC Master's Graduates Employed in North Carolina After Degree Conferral,
by Year of Graduation

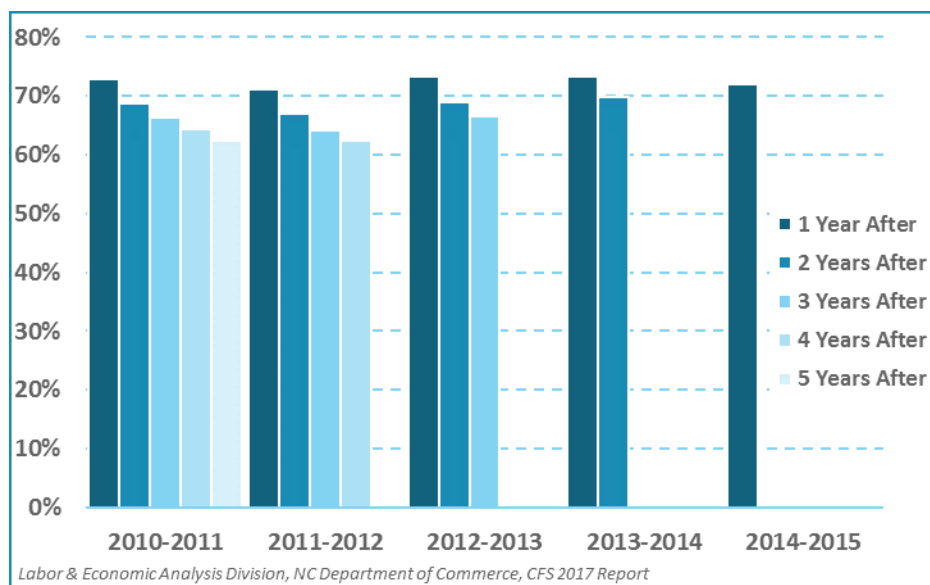
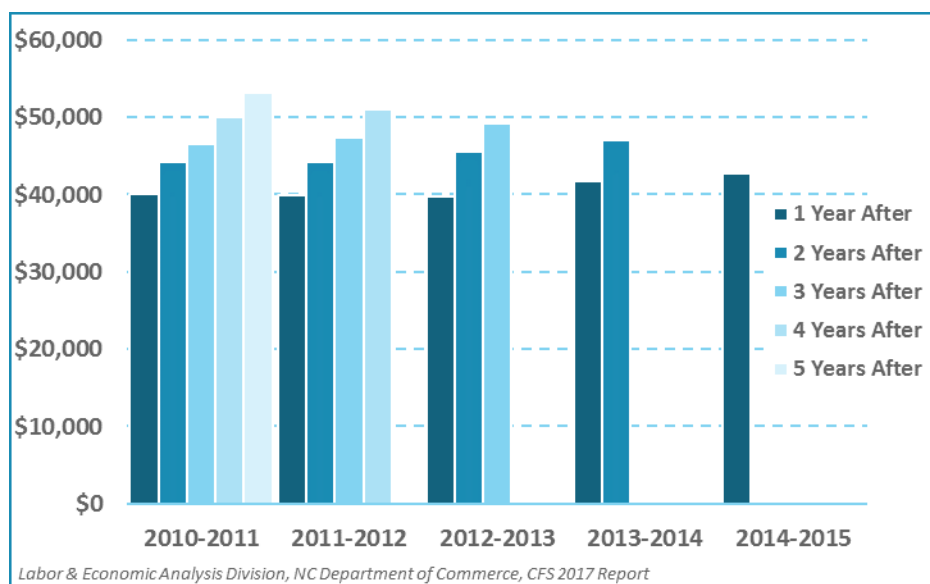
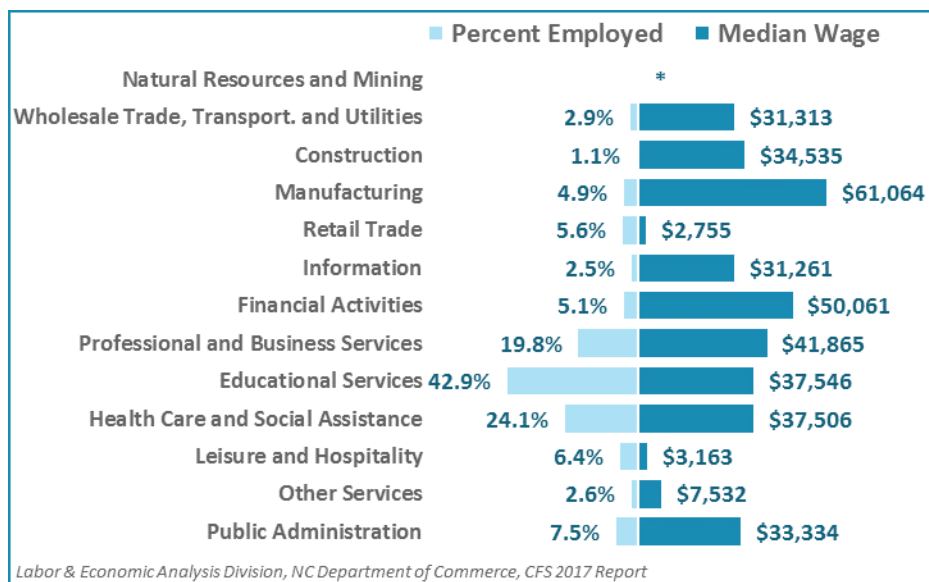


FIGURE 67.
Median Wage of UNC Master's Program Completers in North Carolina,
by Year of Graduation



Median wages following degree conferral show only small cohort differences (*Figure 67, Table 17*). One-year post-graduation wages dipped slightly from the 2010-2011 to 2012-2013 graduates, then increased for the subsequent two cohorts. These one-year post-exit median wages ranging from \$39,694 (2012-2013 graduates) to \$42,663 (2014-2015 graduates). For all cohorts, wages increased steadily over time.

FIGURE 68.
2014-2015 UNC Master's One-Year Post Outcomes by Industry



Recent master's recipients were most likely to be employed one year after graduation in Educational Services, followed by Health Care and Social Assistance, and Professional and Business Services (*Figure 68*). Overall, UNC master's graduates showed wage growth over time, but wages varied considerably by industry.

TABLE 17.

UNC Master's Degree Program Participants and Completers, Outcomes One Through Five Years After Exit, Overall and By Industry

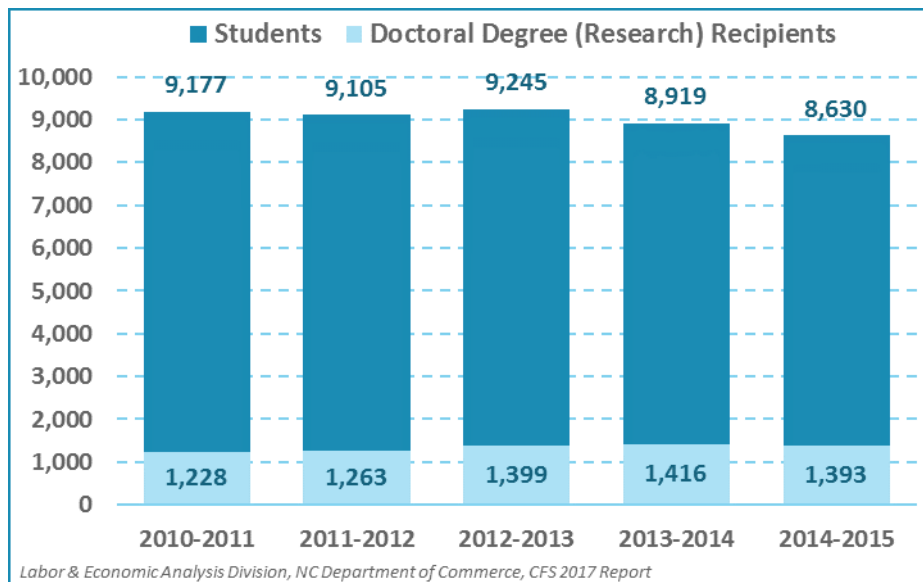
University Of North Carolina System							Common Follow-up System: Evaluative Measures, 2017 Report									
Master's Degree																
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Students		29,970	28,711	29,539	28,429	27,301	29,970	28,711	29,539	28,429	29,970	28,711	29,539	29,970	28,711	29,970
Master's Degree Recipients		10,760	10,883	10,366	10,264	9,504	10,760	10,883	10,366	10,264	10,760	10,883	10,366	10,760	10,883	10,760
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Master's Degree Recipients Employed in North Carolina	N	7,845	7,749	7,594	7,538	6,835	7,391	7,283	7,150	7,174	7,130	6,979	6,907	6,920	6,797	6,721
	%	73%	71%	73%	73%	72%	69%	67%	69%	70%	66%	64%	67%	64%	62%	62%
Master's Degree Recipients' Wages in North Carolina	Mean	\$43,146	\$43,243	\$43,001	\$45,986	\$46,093	\$49,719	\$49,925	\$50,725	\$53,122	\$52,992	\$54,161	\$55,332	\$57,011	\$58,805	\$61,131
	Median	\$40,010	\$39,923	\$39,694	\$41,731	\$42,663	\$44,232	\$44,181	\$45,458	\$47,000	\$46,569	\$47,339	\$49,132	\$49,977	\$50,932	\$53,123
Graduates Enrolled in NC Public Higher Education	N	1,285	1,305	1,180	1,086	976	1,279	1,209	1,084	1,025	1,205	1,136	983	984	988	793
	%	12%	12%	11%	11%	10%	12%	11%	10%	10%	11%	10%	9%	9%	9%	7%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	1,631	1,604	1,444	1,386	1,282	1,491	1,413	1,278	1,245	1,379	1,375	1,195	1,170	1,146	960
	%	15%	15%	14%	14%	13%	14%	13%	12%	12%	13%	13%	12%	11%	11%	9%
Graduates Enrolled or Employed in NC	N	8,287	8,173	7,952	7,847	7,062	7,803	7,652	7,456	7,377	7,465	7,284	7,106	7,149	6,973	6,864
	%	77%	75%	77%	76%	74%	73%	70%	72%	72%	69%	67%	69%	66%	64%	64%
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		0.2%	0.2%	*	0.2%	*	0.2%	0.2%	*	0.2%	0.2%	0.2%	*	0.3%	*	0.2%
Wholesale Trade, Transport. and Utilities		2.8%	3.4%	2.7%	2.5%	2.9%	2.9%	2.9%	2.7%	2.7%	2.9%	3.1%	2.7%	2.7%	2.9%	2.7%
Construction		1.1%	1.1%	1.1%	1.2%	1.1%	1.1%	1.1%	1.2%	1.2%	0.9%	1.0%	1.2%	1.2%	1.2%	1.3%
Manufacturing		5.2%	4.7%	4.6%	4.4%	4.9%	5.1%	5.0%	4.7%	4.6%	5.5%	5.4%	4.6%	5.6%	5.6%	5.4%
Retail Trade		5.7%	5.7%	6.0%	5.5%	5.6%	4.1%	4.3%	4.7%	4.2%	3.8%	3.5%	3.8%	4.0%	3.3%	3.5%
Information		1.9%	1.9%	1.9%	2.0%	2.5%	2.1%	2.1%	2.1%	2.2%	2.4%	2.3%	2.3%	2.4%	2.6%	2.5%
Financial Activities		4.7%	4.3%	4.7%	4.8%	5.1%	4.9%	4.7%	5.2%	4.9%	5.1%	5.2%	5.3%	5.9%	5.8%	6.3%
Professional and Business Services		17.8%	18.5%	17.5%	17.4%	19.8%	17.7%	17.7%	17.7%	16.7%	16.5%	16.9%	16.6%	15.8%	16.1%	14.6%
Educational Services		49.1%	47.5%	46.9%	47.9%	42.9%	47.8%	46.0%	45.6%	46.9%	47.7%	46.1%	46.4%	47.2%	45.8%	46.8%
Health Care and Social Assistance		21.1%	21.8%	22.3%	22.2%	24.1%	21.2%	21.7%	22.1%	22.1%	20.5%	21.2%	21.6%	20.3%	21.1%	20.2%
Leisure and Hospitality		6.9%	6.1%	6.4%	6.0%	6.4%	4.7%	4.4%	4.6%	4.4%	4.0%	4.0%	3.9%	3.9%	3.7%	3.5%
Other Services		2.1%	2.4%	2.5%	2.6%	2.6%	1.9%	1.9%	2.1%	2.1%	1.8%	2.0%	2.0%	1.8%	1.8%	1.9%
Public Administration		6.5%	6.5%	6.9%	7.1%	7.5%	6.3%	6.5%	7.1%	6.9%	6.6%	6.8%	7.1%	7.0%	7.0%	7.3%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$3,819	\$12,242	*	\$22,113	*	\$18,200	\$32,168	*	\$15,178	\$26,387	\$36,237	*	\$33,131	*	\$30,263
Wholesale Trade, Transport. and Utilities		\$31,133	\$29,688	\$33,187	\$38,175	\$31,313	\$38,298	\$45,770	\$43,157	\$44,543	\$47,088	\$50,062	\$51,161	\$57,146	\$56,929	\$63,363
Construction		\$19,456	\$27,580	\$27,208	\$30,730	\$34,535	\$24,558	\$29,307	\$39,138	\$46,310	\$37,748	\$47,569	\$49,596	\$36,971	\$51,498	\$49,255
Manufacturing		\$56,878	\$58,218	\$58,298	\$59,299	\$61,064	\$66,018	\$65,662	\$64,714	\$65,189	\$67,052	\$67,787	\$72,018	\$71,249	\$72,127	\$75,909
Retail Trade		\$2,833	\$3,696	\$3,275	\$3,078	\$2,755	\$4,291	\$4,095	\$3,970	\$4,174	\$5,030	\$4,925	\$4,921	\$6,245	\$5,884	\$6,746
Information		\$31,647	\$31,276	\$33,484	\$35,513	\$31,261	\$40,312	\$42,058	\$42,891	\$44,478	\$49,148	\$48,200	\$41,565	\$49,484	\$49,012	\$50,483
Financial Activities		\$46,329	\$44,410	\$42,237	\$44,776	\$50,061	\$53,209	\$50,334	\$50,060	\$54,233	\$57,238	\$61,203	\$63,170	\$63,335	\$70,808	\$72,687
Professional and Business Services		\$34,576	\$36,221	\$36,497	\$40,043	\$41,865	\$44,965	\$45,809	\$46,007	\$49,050	\$48,665	\$48,743	\$52,597	\$51,625	\$55,033	\$58,629
Educational Services		\$37,223	\$37,152	\$37,269	\$38,955	\$37,546	\$39,667	\$39,092	\$41,026	\$43,400	\$40,842	\$42,262	\$44,247	\$43,960	\$45,451	\$47,078
Health Care and Social Assistance		\$35,597	\$36,584	\$35,916	\$37,094	\$37,506	\$40,693	\$42,060	\$41,625	\$44,051	\$43,740	\$44,790	\$45,080	\$46,778	\$47,425	\$48,529
Leisure and Hospitality		\$2,935	\$2,956	\$2,848	\$2,952	\$3,163	\$3,670	\$4,108	\$4,500	\$3,629	\$4,000	\$3,724	\$4,527	\$3,766	\$3,202	\$3,411
Other Services		\$5,050	\$5,885	\$7,588	\$5,200	\$7,532	\$12,510	\$14,384	\$14,255	\$11,798	\$20,747	\$12,715	\$19,886	\$16,849	\$19,951	\$26,169
Public Administration		\$25,571	\$28,226	\$29,000	\$31,891	\$33,334	\$36,051	\$37,203	\$37,696	\$40,294	\$39,369	\$38,452	\$41,340	\$39,936	\$41,943	\$41,988
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		\$8,796	\$19,805	*	\$29,540	*	\$25,113	\$45,829	*	\$28,423	\$47,823	\$50,717	*	\$51,125	*	\$56,581
Wholesale Trade, Transport. and Utilities		\$45,566	\$42,589	\$46,907	\$52,878	\$45,786	\$48,685	\$52,594	\$52,035	\$56,958	\$53,203	\$55,585	\$59,350	\$69,659	\$63,540	\$70,617
Construction		\$28,610	\$31,885	\$38,323	\$40,947	\$43,138	\$36,204	\$35,557	\$41,189	\$54,393	\$60,305	\$48,650	\$56,210	\$45,192	\$54,912	\$56,856
Manufacturing		\$59,925	\$61,205	\$60,323	\$68,338	\$64,346	\$70,024	\$70,901	\$64,183	\$73,208	\$71,973	\$75,779	\$75,396	\$77,413	\$76,715	\$84,198
Retail Trade		\$10,044	\$10,203	\$9,783	\$11,750	\$12,551	\$14,158	\$14,243	\$14,258	\$16,734	\$17,902	\$16,782	\$15,643	\$18,456	\$21,361	\$21,216
Information		\$41,609	\$39,015	\$42,742	\$45,653	\$41,566	\$48,608	\$48,095	\$55,784	\$51,427	\$52,132	\$54,834	\$57,064	\$56,953	\$54,502	\$61,970
Financial Activities		\$57,033	\$53,505	\$52,993	\$57,971	\$58,918	\$61,659	\$59,977	\$61,275	\$64,057	\$67,307	\$70,217	\$74,646	\$71,245	\$78,400	\$81,580
Professional and Business Services		\$36,546	\$38,643	\$37,263	\$40,448	\$42,173	\$45,262	\$47,271	\$45,189	\$48,388	\$50,762	\$50,283	\$52,527	\$54,511	\$57,942	\$60,291
Educational Services		\$33,056	\$32,828	\$33,193	\$34,610	\$32,115	\$37,334	\$36,880	\$38,146	\$39,582	\$38,894	\$39,314	\$40,561	\$41,889	\$41,963	\$44,811
Health Care and Social Assistance		\$40,823	\$41,614	\$41,562	\$42,796	\$42,228	\$49,495	\$50,072	\$49,917	\$51,960	\$52,257	\$53,443	\$52,932	\$54,373	\$57,082	\$57,527
Leisure and Hospitality		\$8,650	\$8,308	\$8,417	\$8,663	\$9,949	\$11,352	\$11,833	\$13,186	\$12,143	\$13,486	\$12,997	\$16,449	\$13,834	\$13,704	\$14,881
Other Services		\$14,541	\$16,199	\$17,850	\$14,982	\$15,502	\$20,646	\$23,490	\$23,514	\$22,789	\$24,996	\$23,037	\$26,806	\$26,667	\$26,005	\$29,705
Public Administration		\$27,324	\$28,762	\$28,760	\$29,981	\$31,933	\$33,636	\$34,424	\$34,908	\$37,509	\$36,508	\$36,502	\$38,849	\$38,288	\$40,270	\$40,170

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

UNC DOCTORAL (RESEARCH) DEGREE PROGRAM OUTCOMES

As shown in Figure 69, enrollment in research-focused doctoral programs declined over time, while graduation rates increased. Between the 2010-2011 and 2014-2015 program years, the program year graduation rate for doctoral students in research programs increased from 13% to 16%.

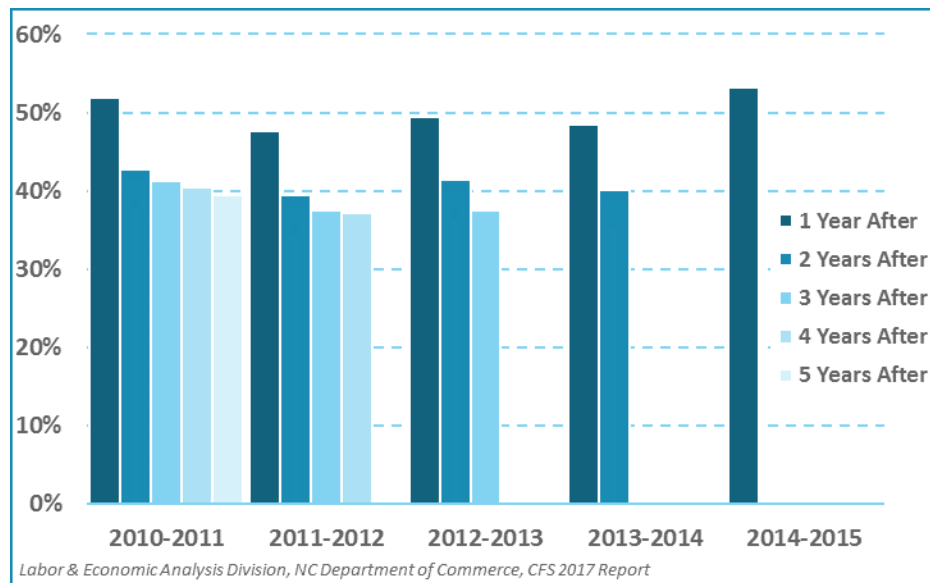
FIGURE 69.
UNC Doctoral (Research) Degree Program Participants and Completers by Program Year



Students who were recorded as having graduated from a doctoral program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion. As measured by one-year post-graduation outcomes, employment rates of research doctorate recipients in North Carolina fluctuated across the cohorts examined (see Figure 70). These rates are low compared to graduates from bachelor's and master's programs, which may be due to the unique employment circumstances of doctoral recipients.

Many short-term academic jobs are not covered by unemployment insurance, and many research doctorate recipients are also expected to find academic employment out of state, as academic hiring guidelines typically require universities to seek out doctoral candidates for employment through a national search. The second year after graduation also showed a noticeable drop in employment within North Carolina, followed by much smaller declines in subsequent years. This unique employment outcome may be due to recipients of doctoral degrees finding out-of-state employment following a transitional post-graduate year.

FIGURE 70.
Percentage of UNC Doctoral (Research) Program Completers Employed in North Carolina After Degree Conferral, by Year of Graduation



Short-term wage outcomes in North Carolina were fairly stable across cohorts of research doctorate graduates, and have not increased for successive cohorts (*Figure 71*). Wages have gone up considerably over time within each cohort of research doctorate graduates, but starting wages have not increased over time. The vast majority of those completing doctoral research programs were employed in Educational Services, and graduates' initial wages in this industry have declined over time across cohorts (*Table 18*), with recent (2014-2015) graduates earning a median wage of \$36,612 one year after graduation (*Figure 72*) as compared to the median wage of \$38,344 earned by the 2010-2011 graduates one year after graduation.

FIGURE 71.
Median Wage of UNC Doctoral (Research) Program Completers in North Carolina, by Year of Graduation

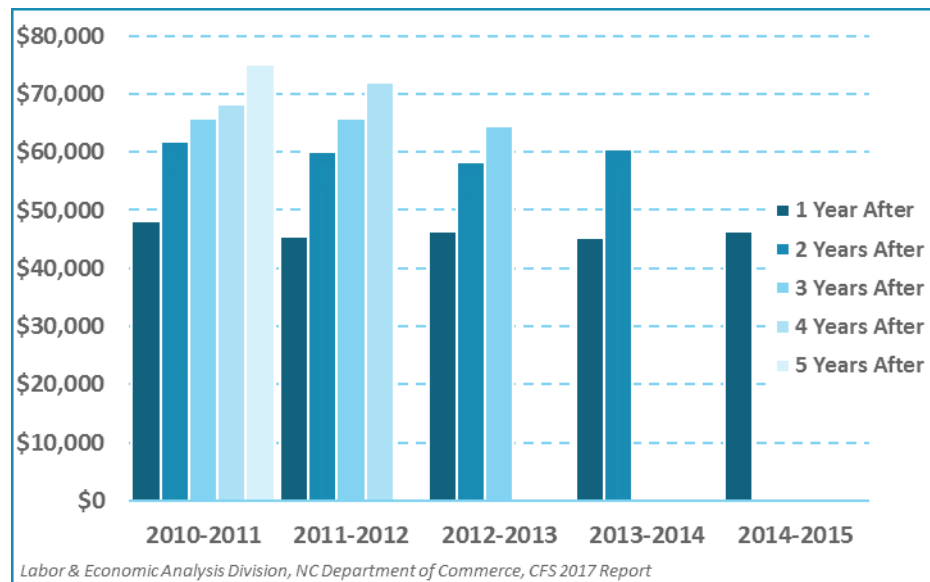
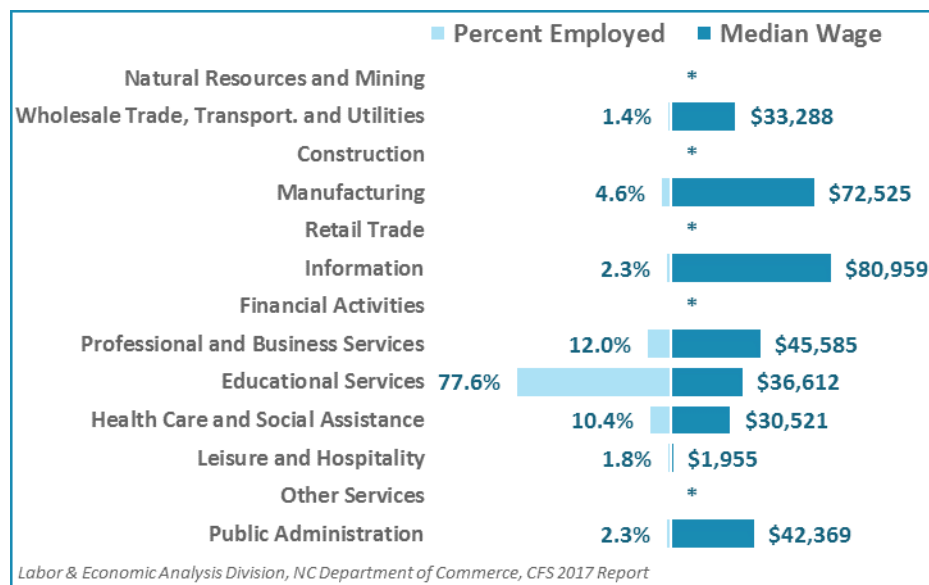


FIGURE 72.
2014-2015 UNC Doctoral (Research) Program Completers One Year After Graduation: Percentage Employed and Median Wage by Industry



Overall, UNC's doctoral research programs did not see wage increases over time across graduating cohorts, and wages appear to have declined in the Educational Services industry that typically employs these graduates. Over time, however, the median wage within each cohort increased following graduation.

TABLE 18.

UNC Doctoral (Research) Degree Program Participants and Completers, One Through Five Years After Exit, Overall and By Industry

University Of North Carolina System							Common Follow-up System: Evaluative Measures, 2017 Report									
Doctoral Degree (Research)																
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Students		9,177	9,105	9,245	8,919	8,630	9,177	9,105	9,245	8,919	9,177	9,105	9,245	9,177	9,105	9,177
Doctoral Degree (Research) Recipients		1,228	1,263	1,399	1,416	1,393	1,228	1,263	1,399	1,416	1,228	1,263	1,399	1,228	1,263	1,228
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Doctoral Degree (Research) Recipients	N	638	602	691	685	740	525	499	580	567	506	474	525	496	470	484
Employed in North Carolina	%	52%	48%	49%	48%	53%	43%	40%	41%	40%	41%	38%	38%	40%	37%	39%
Doctoral Degree (Research) Recipients' Wages in North Carolina	Mean	\$51,582	\$50,001	\$50,648	\$50,090	\$49,468	\$64,158	\$61,385	\$60,648	\$62,516	\$68,452	\$68,279	\$66,868	\$73,090	\$73,724	\$78,142
	Median	\$48,002	\$45,520	\$46,348	\$45,277	\$46,301	\$61,829	\$60,031	\$58,284	\$60,397	\$65,780	\$65,699	\$64,454	\$68,119	\$72,031	\$74,957
Graduates Enrolled in NC Public Higher Education	N	39	33	43	43	44	32	32	51	35	22	30	21	17	34	16
	%	3%	3%	3%	3%	3%	3%	3%	4%	2%	2%	2%	2%	1%	3%	1%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	46	44	52	55	56	36	41	56	42	29	34	28	23	37	28
	%	4%	3%	4%	4%	4%	3%	3%	4%	3%	2%	3%	2%	2%	3%	2%
Graduates Enrolled or Employed in NC	N	650	611	700	697	743	534	503	599	581	512	478	530	498	477	488
	%	53%	48%	50%	49%	53%	43%	40%	43%	41%	42%	38%	38%	41%	38%	40%
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		1.6%	*	2.3%	1.5%	1.4%	2.1%	*	2.1%	*	2.4%	*	2.3%	2.2%	*	2.3%
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		5.2%	3.0%	3.8%	3.9%	4.6%	5.7%	3.8%	4.5%	4.1%	6.5%	4.2%	5.5%	5.6%	4.3%	6.6%
Retail Trade		*	*	*	1.9%	*	*	*	*	*	*	*	*	*	*	*
Information		2.0%	2.0%	2.9%	2.6%	2.3%	1.9%	2.6%	2.9%	4.2%	3.0%	3.8%	2.9%	3.2%	3.4%	2.9%
Financial Activities		*	1.8%	1.9%	*	*	*	2.4%	2.2%	*	*	2.3%	2.3%	*	2.6%	*
Professional and Business Services		10.8%	10.5%	11.7%	14.3%	12.0%	13.3%	12.0%	14.0%	16.9%	14.8%	12.4%	15.6%	15.1%	12.6%	17.8%
Educational Services		79.2%	76.6%	77.0%	72.0%	77.6%	70.7%	71.5%	71.0%	66.5%	67.4%	67.9%	68.6%	66.5%	65.3%	64.5%
Health Care and Social Assistance		8.3%	9.6%	9.6%	9.8%	10.4%	11.0%	11.2%	10.9%	10.8%	11.3%	11.0%	9.7%	10.9%	12.3%	10.5%
Leisure and Hospitality		1.7%	*	1.4%	1.6%	1.8%	*	*	*	*	*	*	*	*	*	*
Other Services		*	*	*	*	*	*	*	*	1.8%	*	*	*	*	*	*
Public Administration		3.4%	3.5%	1.7%	3.2%	2.3%	3.0%	4.4%	2.4%	3.2%	4.0%	4.9%	2.5%	3.8%	4.5%	3.3%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$90,894	*	\$54,809	\$46,460	\$33,288	\$98,992	*	\$68,602	*	\$92,976	*	\$55,521	\$98,566	*	\$114,616
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		\$76,081	\$70,486	\$57,526	\$72,958	\$72,525	\$82,101	\$86,835	\$78,514	\$82,196	\$79,177	\$96,853	\$84,940	\$90,376	\$107,839	\$87,850
Retail Trade		*	*	*	\$4,685	*	*	*	*	*	*	*	*	*	*	*
Information		\$58,219	\$68,282	\$80,043	\$58,164	\$80,959	\$91,584	\$51,082	\$94,097	\$32,124	\$83,936	\$26,556	\$108,885	\$95,912	\$37,133	\$116,060
Financial Activities		*	\$52,229	\$48,252	*	*	*	\$62,423	\$80,259	*	*	\$77,526	\$89,049	*	\$86,375	*
Professional and Business Services		\$42,461	\$39,333	\$43,704	\$53,755	\$45,585	\$65,906	\$52,934	\$55,288	\$70,963	\$64,077	\$58,845	\$66,770	\$68,112	\$77,245	\$80,028
Educational Services		\$38,344	\$40,116	\$40,469	\$38,037	\$36,612	\$53,799	\$50,710	\$49,358	\$51,900	\$57,861	\$59,989	\$55,605	\$59,705	\$66,256	\$62,535
Health Care and Social Assistance		\$35,288	\$39,630	\$36,706	\$39,138	\$30,521	\$39,648	\$44,072	\$36,620	\$48,602	\$43,428	\$50,642	\$46,564	\$48,845	\$46,418	\$55,176
Leisure and Hospitality		\$2,178	*	\$1,821	\$2,518	\$1,955	*	*	*	*	*	*	*	*	*	*
Other Services		*	*	*	*	*	*	*	*	\$32,078	*	*	*	*	*	*
Public Administration		\$52,093	\$33,318	\$6,105	\$44,335	\$42,369	\$73,808	\$41,051	\$31,543	\$64,731	\$70,229	\$42,048	\$36,296	\$70,607	\$58,794	\$67,012
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$83,286	*	\$62,682	\$49,730	\$48,126	\$85,759	*	\$62,175	*	\$91,479	*	\$52,321	\$85,475	*	\$111,696
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		\$78,572	\$79,671	\$63,548	\$71,817	\$68,677	\$81,611	\$81,235	\$77,024	\$81,090	\$75,788	\$96,284	\$74,131	\$87,561	\$108,137	\$88,300
Retail Trade		*	*	*	\$9,467	*	*	*	*	*	*	*	*	*	*	*
Information		\$70,700	\$57,669	\$59,827	\$51,223	\$72,052	\$104,799	\$54,590	\$76,131	\$49,680	\$96,292	\$48,087	\$89,839	\$88,316	\$55,692	\$110,890
Financial Activities		*	\$72,046	\$58,076	*	*	*	\$86,002	\$84,305	*	*	\$106,485	\$82,260	*	\$114,850	*
Professional and Business Services		\$51,593	\$46,000	\$46,759	\$55,037	\$51,093	\$66,216	\$57,290	\$53,534	\$69,605	\$63,661	\$61,498	\$64,550	\$80,151	\$73,861	\$78,756
Educational Services		\$40,870	\$42,281	\$41,454	\$40,572	\$40,020	\$54,818	\$51,744	\$49,831	\$51,448	\$58,291	\$59,462	\$54,802	\$60,327	\$63,474	\$63,919
Health Care and Social Assistance		\$36,002	\$45,544	\$48,073	\$41,575	\$38,226	\$41,696	\$53,593	\$49,000	\$50,834	\$46,301	\$60,815	\$57,218	\$54,059	\$56,741	\$59,304
Leisure and Hospitality		\$8,543	*	\$2,231	\$9,418	\$3,970	*	*	*	*	*	*	*	*	*	*
Other Services		*	*	*	*	*	*	*	*	\$41,942	*	*	*	*	*	*
Public Administration		\$47,508	\$40,228	\$31,358	\$45,131	\$44,139	\$63,017	\$45,983	\$36,086	\$57,473	\$64,566	\$43,891	\$41,048	\$69,596	\$53,168	\$67,539

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

UNC DOCTORAL (PROFESSIONAL PRACTICE) DEGREE PROGRAM OUTCOMES

As shown in Figure 73, enrollment in professional doctoral programs in the UNC system increased substantially between the 2010-2011 and 2014-2015 program years (*also see Table 19*).

Students who were recorded as having graduated from doctoral program were defined as program completers/graduates, and their subsequent wages and employment outcomes were tracked post completion. Employment rates for professional doctoral graduates are somewhat low compared to other programs below the doctoral level, which may be due in part to graduates of professional practice doctoral programs finding employment out of state (*Figure 74*).

FIGURE 73.
UNC Doctoral (Professional Practice) Degree Program Participants and Completers by Program Year

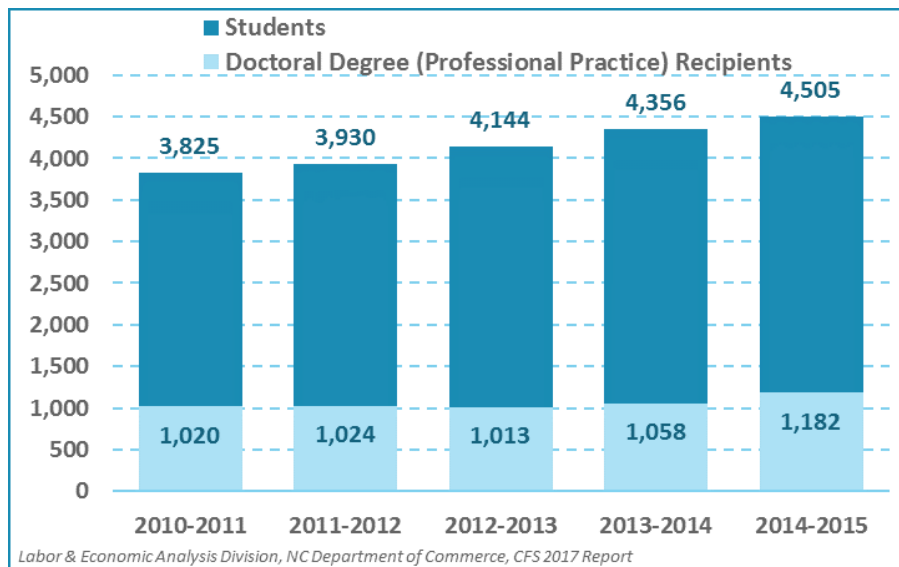
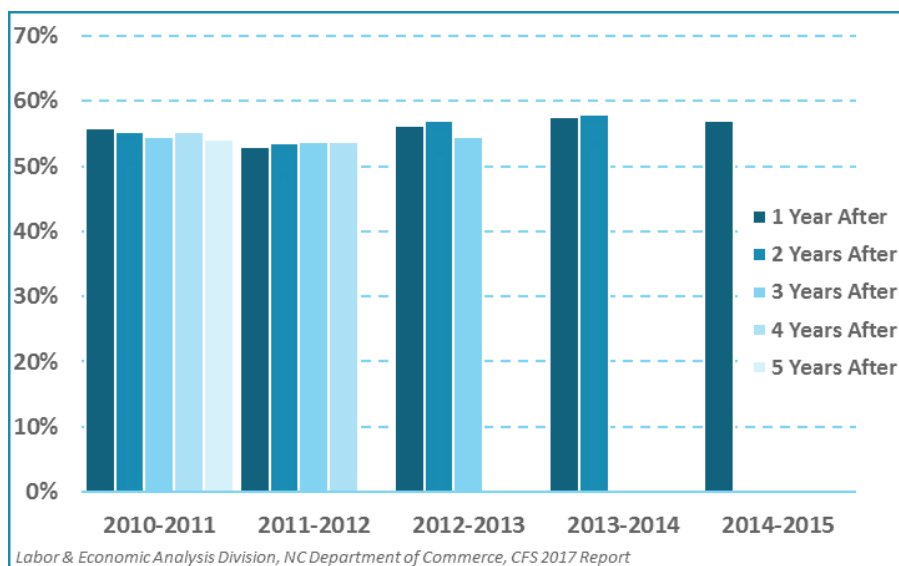


FIGURE 74.
Percentage of UNC Doctoral (Professional Practice) Program Completers Employed in North Carolina After Degree Conferral, by Year of Graduation



Employment rates for professional doctoral graduates within North Carolina are fairly stable over time, while median wages for UNC's doctoral graduates in professional practice programs have increased over time across cohorts, and show positive wage growth within cohorts (*Figure 75*).

Recent graduates of doctoral practice programs were most likely to be employed within the Health Care and Social Assistance and Professional and Business Services industries (*Figure 76*). Overall, UNC's professional practice doctoral graduates show steady employment and positive wage outcomes.

FIGURE 75.
Median Wage of UNC Doctoral (Professional Practice) Program Completers in North Carolina, by Year of Graduation

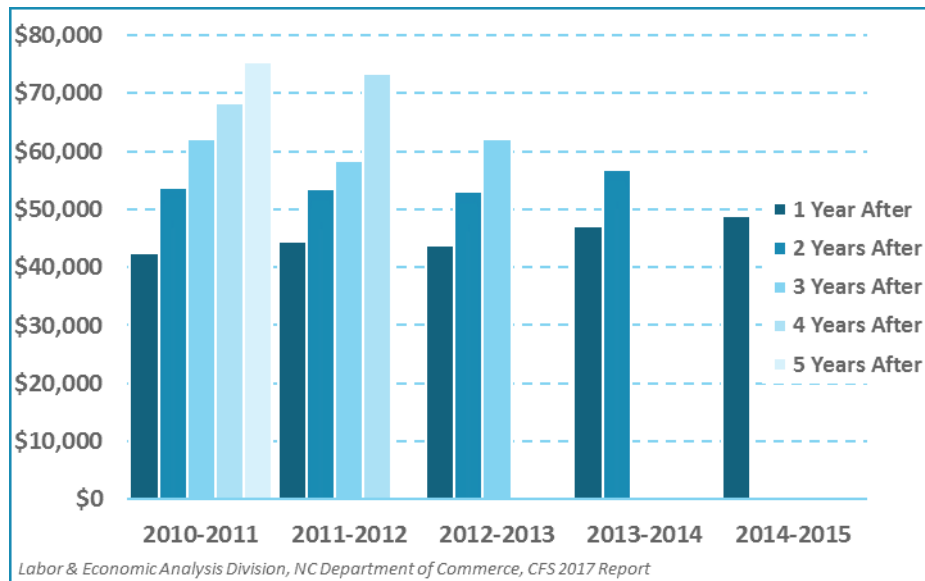


FIGURE 76.
2014-2015 UNC Doctoral (Professional Practice) Program Completers One Year After Graduation: Percentage Employed and Median Wage by Industry

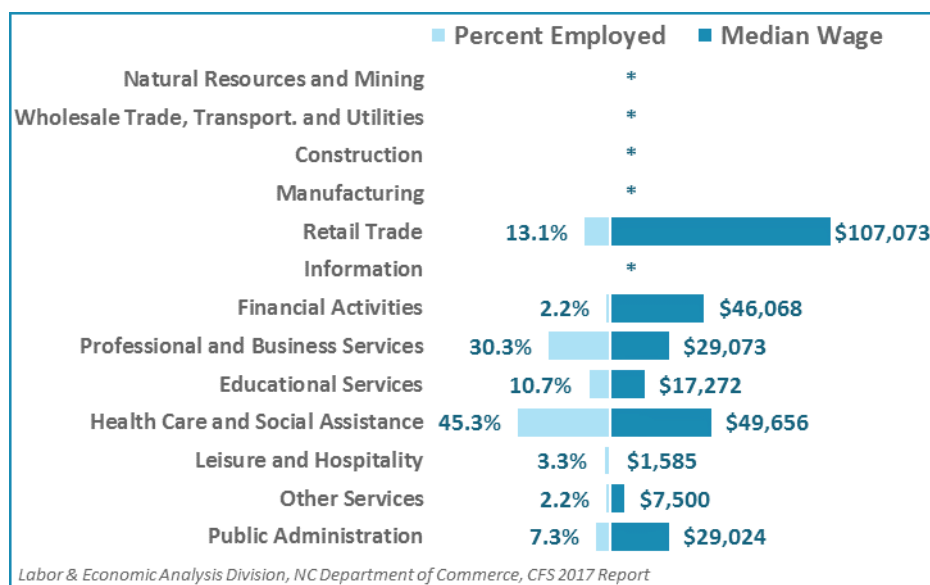


TABLE 19.

UNC Doctoral (Professional) Degree Program Participants and Completers, One Through Five Years After Exit, Overall and By Industry

University Of North Carolina System							Common Follow-up System: Evaluative Measures, 2017 Report									
Doctoral Degree (Professional Practice)																
All Programs							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2010-2011	2011-2012	2012-2013	2013-2014	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2010-2011
Students		3,825	3,930	4,144	4,356	4,505	3,825	3,930	4,144	4,356	3,825	3,930	4,144	3,825	3,930	3,825
Doctoral Degree (Professional Practice)		1,020	1,024	1,013	1,058	1,182	1,020	1,024	1,013	1,058	1,020	1,024	1,013	1,020	1,024	1,020
Post-Completion Outcome Measures		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Doctoral Degree (Professional Practice)	N	569	542	569	608	673	563	549	578	613	555	551	552	564	550	551
Recipients Employed in North Carolina	%	56%	53%	56%	57%	57%	55%	54%	57%	58%	54%	54%	54%	55%	54%	54%
Doctoral Degree (Professional Practice)	Mean	\$50,609	\$51,008	\$50,850	\$53,879	\$57,088	\$66,628	\$66,070	\$66,837	\$68,987	\$73,714	\$71,896	\$77,602	\$81,386	\$84,516	\$91,758
Recipients' Wages in North Carolina	Median	\$42,439	\$44,410	\$43,777	\$47,049	\$48,752	\$53,651	\$53,528	\$53,005	\$56,824	\$62,038	\$58,266	\$62,214	\$68,306	\$73,339	\$75,437
Graduates Enrolled in NC Public Higher Education	N	31	37	22	27	32	23	33	21	33	26	33	23	23	31	20
	%	3%	4%	2%	3%	3%	2%	3%	2%	3%	3%	3%	2%	2%	3%	2%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	45	48	39	36	45	30	43	28	44	31	43	33	35	34	31
	%	4%	5%	4%	3%	4%	3%	4%	3%	4%	3%	4%	3%	3%	3%	3%
Graduates Enrolled or Employed in NC	N	576	562	577	622	681	568	562	584	619	559	563	557	567	558	554
	%	56%	55%	57%	59%	58%	56%	55%	58%	59%	55%	55%	55%	56%	54%	54%
Graduates' Employment by Industry*		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		*	*	1.8%	2.0%	*	*	*	*	1.8%	*	*	2.0%	*	*	*
Retail Trade		15.1%	14.8%	16.0%	14.5%	13.1%	12.8%	12.9%	13.0%	10.6%	11.4%	11.6%	12.0%	11.2%	10.5%	10.7%
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		2.3%	*	*	*	2.2%	*	*	*	2.3%	*	2.0%	2.0%	*	*	2.4%
Professional and Business Services		35.3%	36.3%	35.9%	34.4%	30.3%	34.1%	38.3%	35.3%	33.1%	34.2%	37.2%	32.1%	32.1%	36.4%	31.2%
Educational Services		10.2%	8.7%	9.7%	7.2%	10.7%	5.7%	7.8%	8.1%	9.5%	7.4%	7.3%	9.6%	9.0%	7.6%	10.7%
Health Care and Social Assistance		40.2%	41.1%	38.5%	43.8%	45.3%	42.8%	42.1%	39.8%	45.4%	44.0%	42.6%	40.4%	44.3%	44.4%	42.3%
Leisure and Hospitality		4.9%	3.9%	5.3%	1.8%	3.3%	2.1%	2.0%	3.1%	*	*	1.8%	*	2.0%	*	*
Other Services		*	2.8%	*	*	2.2%	*	2.4%	*	*	*	*	*	*	2.0%	*
Public Administration		7.2%	6.3%	7.7%	5.6%	7.3%	11.4%	6.7%	8.7%	7.2%	11.5%	6.2%	8.9%	9.8%	6.0%	9.6%
Graduates' Median Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		*	*	\$24,417	\$71,976	*	*	*	\$83,942	*	*	\$82,178	*	*	*	*
Retail Trade		\$98,549	\$104,234	\$95,177	\$90,150	\$107,073	\$115,084	\$112,703	\$109,386	\$118,470	\$113,383	\$121,792	\$120,961	\$112,241	\$124,152	\$112,804
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		\$13,566	*	*	*	\$46,068	*	*	*	\$46,291	*	\$37,913	\$41,406	*	*	\$51,917
Professional and Business Services		\$27,227	\$27,496	\$22,346	\$28,384	\$29,073	\$48,337	\$43,794	\$43,641	\$52,331	\$53,498	\$50,327	\$57,487	\$58,321	\$64,703	\$67,250
Educational Services		\$5,544	\$16,970	\$23,542	\$22,641	\$17,272	\$29,840	\$15,229	\$31,138	\$30,465	\$29,988	\$8,000	\$23,184	\$41,927	\$26,947	\$41,992
Health Care and Social Assistance		\$48,483	\$48,027	\$49,013	\$50,961	\$49,656	\$54,903	\$52,842	\$53,476	\$56,554	\$62,135	\$56,876	\$61,536	\$68,867	\$66,948	\$86,213
Leisure and Hospitality		\$3,361	\$1,508	\$2,020	\$2,582	\$1,585	\$1,831	\$4,711	\$804	*	*	\$1,514	*	\$3,678	*	*
Other Services		*	\$8,426	*	*	\$7,500	*	\$27,984	*	*	*	*	*	*	\$37,263	*
Public Administration		\$29,937	\$23,141	\$25,307	\$23,494	\$29,024	\$42,241	\$38,739	\$41,513	\$42,822	\$43,850	\$42,858	\$44,819	\$46,269	\$45,244	\$49,475
Graduates' Average Wages by Industry of Employment		1 Year After					2 Years After				3 Years After			4 Years After		5 Years After
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		*	*	\$53,349	\$71,386	*	*	*	\$68,968	*	*	\$108,365	*	*	*	*
Retail Trade		\$75,219	\$72,745	\$68,772	\$67,505	\$77,632	\$90,107	\$93,232	\$86,532	\$97,026	\$95,900	\$99,673	\$92,374	\$92,226	\$105,303	\$91,797
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		\$20,380	*	*	*	\$46,892	*	*	*	\$50,997	*	\$43,324	\$47,394	*	*	\$49,901
Professional and Business Services		\$34,995	\$34,160	\$32,835	\$37,130	\$39,752	\$51,188	\$50,550	\$50,139	\$57,725	\$57,025	\$59,693	\$62,007	\$65,854	\$71,412	\$74,198
Educational Services		\$15,047	\$20,333	\$23,087	\$23,008	\$23,825	\$31,835	\$18,657	\$30,019	\$29,216	\$29,750	\$18,942	\$33,511	\$46,618	\$40,252	\$49,117
Health Care and Social Assistance		\$54,132	\$55,111	\$56,593	\$57,947	\$59,550	\$70,247	\$66,875	\$72,769	\$68,326	\$78,390	\$73,739	\$86,293	\$85,790	\$85,510	\$105,940
Leisure and Hospitality		\$4,994	\$5,261	\$4,241	\$9,062	\$9,076	\$6,280	\$11,822	\$3,661	*	*	\$10,243	*	\$7,849	*	*
Other Services		*	\$19,097	*	*	\$23,394	*	\$28,658	*	*	*	*	*	*	\$34,538	*
Public Administration		\$25,407	\$24,526	\$25,661	\$28,105	\$30,013	\$34,822	\$31,858	\$34,233	\$38,259	\$37,774	\$36,604	\$37,196	\$42,287	\$46,328	\$46,471

*Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.

SUMMARY AND RECOMMENDATIONS

The outcomes of UNC graduates were generally positive and improved over time. Bachelor's, master's, and doctoral degree recipients have seen their wages increase in each year after graduation, and each cohort tended to earn more in each year than the prior cohort, except for those graduates with research doctorates. Higher-level credentials were associated with better wage outcomes. Post-completion outcome measures show that master's degree recipients earned more than bachelor's degree recipients, and doctoral degree recipients earned more than master's degree recipients, in each year after graduation across all the cohorts examined here.

The share of graduates employed in North Carolina typically declined in each year after graduation, but this wasn't necessarily a negative outcome—individuals not employed in North Carolina might be unemployed, but could also be out of the labor force (e.g. full-time parents) or employed in a job not covered by North Carolina's unemployment insurance laws (e.g. jobs in other states).

The decline over time in the share of bachelor's graduates subsequently enrolled in public higher education, re-employment, or training programs suggests that recent graduates are choosing to forego wage-boosting investments in human capital, at least within the state. It is possible that this trend is related to the enrollment decline observed in UNC graduate programs. It is possible that recent graduates are taking advantage of the tighter labor market to obtain full-time employment rather than staying in school, as employers improve their wage offers and loosen the educational requirements of posted positions. Although no action is merited at this time, it is recommended that UNC continue to follow trends in post-bachelor's enrollment in the years to come.

The lack of improvement in wages between the 2010-2011 and 2014-2015 cohorts for those receiving research doctorates is also notable. Potential reasons include weakening labor market demand for these types of credentials, or shifts in the industries that employ these graduates. It is suggested that UNC continue to follow these outcomes and conduct further investigation of labor market conditions for recipients of research doctorates.

The wide variation in outcomes between different areas of study and different degree levels may suggest that some programs lead to better labor market outcomes than others. However, more research is needed to determine whether the degree programs themselves caused these outcomes, or if other factors were at play (such as differences in the types of students graduating from these programs). The distribution of outcomes within programs—e.g. wage earnings at the 25th and 75th percentiles, rather than just the median—should be assessed to gauge how widely these outcomes vary. Information about the causal returns to degree programs and/or the variation in these returns could then be used to determine which programs provide the best return on investment for UNC students and to strengthen existing program offerings.

APPENDICES

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM

APPENDIX TABLE 1.

CTE Associate Degree Program Outcomes by Program Area, 2010-2011 Graduates

North Carolina Community College System Associate Degree Programs										Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																		
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion				
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage		
Agricultural & Natural Resources Technologies	1,883	274	189	69%	\$15,633	175	64%	\$21,030	178	65%	\$25,723	177	65%	\$27,105	181	66%	\$29,629		
Biological and Chemical Technologies	1,228	170	140	82%	\$20,172	140	82%	\$29,796	141	83%	\$32,417	141	83%	\$32,847	134	79%	\$36,352		
Business Technologies	46,195	4,359	3,308	76%	\$19,098	3,293	76%	\$23,838	3,256	75%	\$26,298	3,230	74%	\$28,575	3,187	73%	\$31,000		
Commercial and Artistic Production Technologies	3,323	355	255	72%	\$13,071	251	71%	\$17,684	250	70%	\$19,446	249	70%	\$23,464	241	68%	\$26,085		
Construction Technologies	3,686	478	370	77%	\$25,635	361	76%	\$31,731	364	76%	\$34,833	354	74%	\$38,774	352	74%	\$43,295		
Engineering Technologies	6,426	812	616	76%	\$24,810	627	77%	\$30,442	611	75%	\$34,265	610	75%	\$38,041	602	74%	\$41,243		
Health Sciences	23,600	4,477	4,011	90%	\$32,073	3,953	88%	\$39,510	3,839	86%	\$41,440	3,773	84%	\$42,647	3,703	83%	\$44,874		
Industrial Technologies	3,658	526	424	81%	\$33,321	421	80%	\$38,925	419	80%	\$40,689	409	78%	\$45,062	409	78%	\$45,584		
Public Service Technologies	30,707	2,646	2,044	77%	\$16,868	2,024	76%	\$19,940	1,997	75%	\$21,070	1,967	74%	\$23,197	1,961	74%	\$25,056		
Transport Systems Technologies	4,564	525	392	75%	\$22,687	402	77%	\$25,070	395	75%	\$28,182	394	75%	\$31,464	382	73%	\$36,584		

APPENDIX TABLE 2.

CTE Associate Degree Program Outcomes by Program Area, 2011-2012 Graduates

North Carolina Community College System Associate Degree Programs									Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>						
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2011-2012														
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	
Agricultural & Natural Resources Technologies	1,841	289	207	72%	\$14,060	195	67%	\$18,537	198	69%	\$20,863	184	64%	\$25,908	
Biological and Chemical Technologies	1,007	133	110	83%	\$21,488	105	79%	\$22,836	102	77%	\$26,805	102	77%	\$30,944	
Business Technologies	46,305	4,254	3,364	79%	\$19,637	3,327	78%	\$24,160	3,295	77%	\$26,982	3,264	77%	\$29,716	
Commercial and Artistic Production Technologies	3,258	356	254	71%	\$11,661	244	69%	\$16,438	241	68%	\$17,999	239	67%	\$22,544	
Construction Technologies	3,504	357	287	80%	\$28,222	290	81%	\$35,234	286	80%	\$39,996	289	81%	\$42,186	
Engineering Technologies	6,152	688	558	81%	\$22,159	549	80%	\$29,188	532	77%	\$34,793	520	76%	\$39,878	
Health Sciences	23,293	4,685	4,237	90%	\$32,177	4,174	89%	\$39,131	4,069	87%	\$40,559	3,959	85%	\$43,402	
Industrial Technologies	3,611	428	355	83%	\$32,125	356	83%	\$39,314	364	85%	\$43,428	352	82%	\$45,923	
Public Service Technologies	30,230	2,587	2,034	79%	\$17,465	2,024	78%	\$19,725	2,015	78%	\$21,748	1,994	77%	\$24,490	
Transport Systems Technologies	4,563	431	360	84%	\$21,606	345	80%	\$27,206	337	78%	\$31,768	331	77%	\$34,474	

APPENDIX TABLE 3.

CTE Associate Degree Program Outcomes by Program Area, 2012-2013 Graduates

North Carolina Community College System Associate Degree Programs						Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>					
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	1,812	279	208	75%	\$17,048	198	71%	\$22,660	183	66%	\$27,407
Biological and Chemical Technologies	844	112	88	79%	\$17,439	80	71%	\$26,363	87	78%	\$28,015
Business Technologies	46,098	4,382	3,385	77%	\$19,354	3,394	77%	\$24,479	3,337	76%	\$27,369
Commercial and Artistic Production Technologies	3,236	341	245	72%	\$12,692	233	68%	\$14,868	224	66%	\$18,826
Construction Technologies	3,456	383	313	82%	\$25,867	308	80%	\$32,664	290	76%	\$35,341
Engineering Technologies	5,980	657	523	80%	\$23,940	517	79%	\$31,198	514	78%	\$37,616
Health Sciences	23,034	4,671	4,179	89%	\$33,337	4,124	88%	\$40,633	4,031	86%	\$43,200
Industrial Technologies	3,979	417	351	84%	\$30,218	351	84%	\$37,367	345	83%	\$42,056
Public Service Technologies	29,381	2,749	2,201	80%	\$16,730	2,170	79%	\$20,046	2,156	78%	\$22,657
Transport Systems Technologies	4,825	532	438	82%	\$22,919	427	80%	\$28,581	418	79%	\$32,797

APPENDIX TABLE 4.

CTE Associate Degree Program Outcomes by Program Area, 2013-2014 and 2014-2015 Graduates

North Carolina Community College System Associate Degree Programs									Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>				
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014								Program Year 2014-2015				
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	1,752	283	206	73%	\$17,951	193	68%	\$24,045	1,725	322	248	77%	\$17,966
Biological and Chemical Technologies	787	112	92	82%	\$18,271	94	84%	\$23,151	716	96	73	76%	\$21,991
Business Technologies	44,667	4,842	3,618	75%	\$20,273	3,628	75%	\$25,252	42,162	4,846	3,821	79%	\$21,915
Commercial and Artistic Production Technologies	3,102	371	269	73%	\$12,622	262	71%	\$17,448	2,957	383	285	74%	\$13,720
Construction Technologies	3,367	462	326	71%	\$25,502	327	71%	\$32,672	3,133	416	334	80%	\$31,940
Engineering Technologies	5,972	715	575	80%	\$27,144	584	82%	\$33,523	5,472	675	539	80%	\$27,338
Health Sciences	23,057	4,957	4,428	89%	\$32,659	4,369	88%	\$41,931	22,435	4,892	4,426	90%	\$36,169
Industrial Technologies	4,233	509	418	82%	\$31,242	403	79%	\$38,939	3,969	525	444	85%	\$32,883
Public Service Technologies	27,345	2,826	2,242	79%	\$18,862	2,184	77%	\$21,895	25,272	2,823	2,263	80%	\$18,518
Transport Systems Technologies	5,007	757	563	74%	\$24,610	567	75%	\$30,231	4,792	582	481	83%	\$25,213

APPENDIX TABLE 5.
CTE Diploma Program Outcomes by Program Area, 2010-2011 Graduates

North Carolina Community College System Postsecondary Diploma Programs										Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																		
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion				
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage		
Agricultural & Natural Resources Technologies	197	43	21	49%	\$17,347	22	51%	\$21,313	22	51%	\$23,537	24	56%	\$22,092	22	51%	\$23,838		
Biological and Chemical Technologies	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Business Technologies	2,529	446	326	73%	\$17,163	338	76%	\$21,038	342	77%	\$22,925	333	75%	\$25,914	328	74%	\$28,264		
Commercial and Artistic Production Technologies	222	32	18	56%	\$8,556	16	50%	\$10,679	15	47%	\$12,596	17	53%	\$14,840	16	50%	\$19,698		
Construction Technologies	2,426	618	416	67%	\$20,972	423	68%	\$25,732	418	68%	\$29,950	425	69%	\$32,723	417	67%	\$35,579		
Engineering Technologies	183	43	27	63%	\$20,161	31	72%	\$24,086	33	77%	\$30,500	28	65%	\$45,207	28	65%	\$42,806		
Health Sciences	4,239	1,706	1,551	91%	\$24,491	1,520	89%	\$28,297	1,461	86%	\$29,894	1,408	83%	\$31,825	1,376	81%	\$33,829		
Industrial Technologies	2,041	450	353	78%	\$24,589	345	77%	\$30,075	336	75%	\$34,267	337	75%	\$37,503	323	72%	\$39,830		
Public Service Technologies	3,877	588	433	74%	\$13,249	435	74%	\$15,683	417	71%	\$18,011	404	69%	\$19,726	388	66%	\$22,504		
Transport Systems Technologies	1,679	261	198	76%	\$16,460	199	76%	\$21,968	199	76%	\$23,485	188	72%	\$27,379	186	71%	\$30,279		

APPENDIX TABLE 6.
CTE Diploma Program Outcomes by Program Area, 2011-2012 Graduates

North Carolina Community College System Postsecondary Diploma Programs									Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>								
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2011-2012																
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion					
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage			
	Agricultural & Natural Resources Technologies	206	47	29	62%	\$8,541	30	64%	\$13,867	30	64%	\$16,005	30	64%	\$17,931		
	Biological and Chemical Technologies	58	*	*	*	*	*	*	*	*	*	*	*	*	*		
	Business Technologies	2,460	519	398	77%	\$17,139	400	77%	\$21,613	405	78%	\$24,784	391	75%	\$27,089		
	Commercial and Artistic Production Technologies	304	38	21	55%	\$6,766	18	47%	\$11,580	18	47%	\$13,036	16	42%	\$19,167		
	Construction Technologies	1,870	390	316	81%	\$19,872	308	79%	\$27,249	295	76%	\$31,935	298	76%	\$34,789		
	Engineering Technologies	280	42	31	74%	\$26,169	35	83%	\$26,842	33	79%	\$36,700	30	71%	\$43,542		
	Health Sciences	4,092	1,721	1,532	89%	\$25,189	1,519	88%	\$28,823	1,481	86%	\$29,585	1,434	83%	\$32,193		
Industrial Technologies	2,030	239	201	84%	\$20,396	188	79%	\$28,061	187	78%	\$31,933	193	81%	\$35,232			
Public Service Technologies	3,824	571	407	71%	\$12,677	409	72%	\$14,606	390	68%	\$17,181	392	69%	\$18,653			
Transport Systems Technologies	1,406	196	150	77%	\$14,867	149	76%	\$19,679	136	69%	\$26,271	135	69%	\$29,203			

APPENDIX TABLE 7.
CTE Diploma Program Outcomes by Program Area, 2012-2013 Graduates

North Carolina Community College System Postsecondary Diploma Programs						Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>					
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	161	20	16	80%	\$14,632	14	70%	\$18,322	14	70%	\$25,621
Biological and Chemical Technologies	140	*	*	*	*	*	*	*	*	*	*
Business Technologies	2,657	525	395	75%	\$17,140	399	76%	\$22,332	393	75%	\$25,320
Commercial and Artistic Production Technologies	246	32	22	69%	\$12,818	20	63%	\$9,232	20	63%	\$11,703
Construction Technologies	1,808	333	249	75%	\$20,132	253	76%	\$24,191	248	74%	\$29,390
Engineering Technologies	393	46	31	67%	\$16,068	27	59%	\$34,633	29	63%	\$35,873
Health Sciences	4,129	1,839	1,662	90%	\$24,804	1,628	89%	\$28,874	1,595	87%	\$30,937
Industrial Technologies	2,513	265	216	82%	\$23,453	208	78%	\$29,093	207	78%	\$32,328
Public Service Technologies	3,587	531	383	72%	\$11,789	360	68%	\$15,852	347	65%	\$19,092
Transport Systems Technologies	1,330	177	133	75%	\$16,693	129	73%	\$19,388	126	71%	\$26,099

APPENDIX TABLE 8.
CTE Diploma Program Outcomes by Program Area, 2013-2014 and 2014-2105 Graduates

North Carolina Community College System Postsecondary Diploma Programs			Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>										
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014									Program Year 2014-2015			
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	196	22	16	73%	\$12,681	15	68%	\$22,300	208	23	19	83%	\$12,438
Biological and Chemical Technologies	266	*	*	*	*	*	*	*	*	*	*	*	*
Business Technologies	2,806	638	469	74%	\$18,582	476	75%	\$23,867	2,613	688	540	78%	\$20,139
Commercial and Artistic Production Technologies	250	33	19	58%	\$10,644	20	61%	\$17,012	318	47	35	74%	\$11,817
Construction Technologies	1,647	304	227	75%	\$22,345	218	72%	\$27,799	1,445	307	227	74%	\$25,115
Engineering Technologies	537	39	24	62%	\$15,549	24	62%	\$25,135	622	56	41	73%	\$20,552
Health Sciences	3,903	1,686	1,499	89%	\$25,839	1,480	88%	\$29,649	4,390	1,792	1,625	91%	\$26,465
Industrial Technologies	2,399	357	289	81%	\$24,096	283	79%	\$31,813	2,381	384	307	80%	\$25,779
Public Service Technologies	3,436	542	390	72%	\$12,707	389	72%	\$15,278	3,135	562	413	73%	\$13,319
Transport Systems Technologies	1,193	162	111	69%	\$19,712	115	71%	\$25,130	1,055	210	161	77%	\$23,414

APPENDIX TABLE 9.

CTE Certificate Program Outcomes by Program Area, 2010-2011 Graduates

North Carolina Community College System Postsecondary Certificate Programs										Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																		
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion				
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage		
Agricultural & Natural Resources Technologies	336	168	59	35%	\$13,064	65	39%	\$10,108	68	40%	\$16,905	71	42%	\$23,331	77	46%	\$23,310		
Biological and Chemical Technologies	45	30	23	77%	\$24,589	27	90%	\$30,953	24	80%	\$35,867	22	73%	\$41,725	24	80%	\$39,850		
Business Technologies	4,526	2,210	1,478	67%	\$16,970	1,511	68%	\$22,167	1,528	69%	\$24,389	1,512	68%	\$27,151	1,497	68%	\$29,185		
Commercial and Artistic Production Technologies	328	196	91	46%	\$13,233	95	48%	\$20,499	88	45%	\$28,424	91	46%	\$27,736	88	45%	\$26,333		
Construction Technologies	1,763	1,181	547	46%	\$18,489	606	51%	\$22,656	601	51%	\$26,580	618	52%	\$27,329	636	54%	\$30,753		
Engineering Technologies	597	349	247	71%	\$17,482	251	72%	\$26,267	249	71%	\$29,473	242	69%	\$33,907	248	71%	\$37,173		
Health Sciences	1,551	693	549	79%	\$15,633	540	78%	\$19,331	535	77%	\$22,635	540	78%	\$25,117	525	76%	\$27,539		
Industrial Technologies	1,324	808	519	64%	\$20,071	544	67%	\$24,369	534	66%	\$28,041	537	66%	\$31,781	535	66%	\$33,390		
Public Service Technologies	5,971	2,521	1,846	73%	\$16,724	1,858	74%	\$20,682	1,811	72%	\$23,100	1,792	71%	\$25,225	1,803	72%	\$27,819		
Transport Systems Technologies	1,263	706	445	63%	\$17,109	453	64%	\$21,978	445	63%	\$26,186	439	62%	\$29,007	438	62%	\$31,362		

APPENDIX TABLE 10.

CTE Certificate Program Outcomes by Program Area, 2011-2012 Graduates

North Carolina Community College System Postsecondary Certificate Programs										Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2011-2012																		
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion							
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage					
	Agricultural & Natural Resources Technologies	269	136	83	61%	\$10,850	82	60%	\$14,297	74	54%	\$16,462	72	53%	\$22,795				
	Biological and Chemical Technologies	29	23	19	83%	\$21,313	20	87%	\$27,344	20	87%	\$33,126	19	83%	\$34,179				
	Business Technologies	4,865	2,306	1,616	70%	\$17,588	1,637	71%	\$22,544	1,613	70%	\$25,624	1,622	70%	\$27,744				
	Commercial and Artistic Production Technologies	538	247	118	48%	\$10,594	109	44%	\$14,636	111	45%	\$19,250	107	43%	\$20,514				
	Construction Technologies	911	533	386	72%	\$23,094	384	72%	\$31,415	378	71%	\$35,846	369	69%	\$39,817				
	Engineering Technologies	554	291	212	73%	\$19,399	221	76%	\$25,458	216	74%	\$33,338	214	74%	\$35,198				
	Health Sciences	1,793	681	526	77%	\$15,597	524	77%	\$19,776	506	74%	\$22,295	494	73%	\$25,423				
Industrial Technologies	1,291	621	434	70%	\$17,868	436	70%	\$25,353	440	71%	\$30,647	431	69%	\$34,368					
Public Service Technologies	6,708	2,380	1,773	74%	\$17,203	1,776	75%	\$20,736	1,768	74%	\$23,533	1,757	74%	\$25,550					
Transport Systems Technologies	1,301	658	439	67%	\$15,555	435	66%	\$21,816	428	65%	\$26,734	426	65%	\$29,109					

APPENDIX TABLE 11.
CTE Certificate Program Outcomes by Program Area, 2012-2013 Graduates

North Carolina Community College System Postsecondary Certificate Programs						Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>					
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	319	117	72	62%	\$15,110	68	58%	\$21,657	69	59%	\$24,171
Biological and Chemical Technologies	40	*	*	*	*	*	*	*	*	*	*
Business Technologies	5,392	2,482	1,693	68%	\$16,518	1,706	69%	\$21,809	1,693	68%	\$25,552
Commercial and Artistic Production Technologies	569	232	109	47%	\$11,633	103	44%	\$19,827	102	44%	\$24,632
Construction Technologies	1,349	740	401	54%	\$17,645	420	57%	\$24,123	419	57%	\$31,420
Engineering Technologies	568	277	201	73%	\$17,424	196	71%	\$27,825	187	68%	\$34,496
Health Sciences	1,997	660	531	80%	\$15,480	534	81%	\$20,048	528	80%	\$23,335
Industrial Technologies	1,410	666	472	71%	\$18,328	503	76%	\$26,498	497	75%	\$30,802
Public Service Technologies	6,546	2,430	1,829	75%	\$17,094	1,831	75%	\$22,280	1,810	74%	\$26,218
Transport Systems Technologies	1,311	578	394	68%	\$16,679	390	67%	\$22,817	375	65%	\$27,415

APPENDIX TABLE 12.
CTE Certificate Program Outcomes by Program Area, 2013-2014 and 2014-2015 Graduates

North Carolina Community College System Postsecondary Certificate Programs			Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>										
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014									Program Year 2014-2015			
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage
Agricultural & Natural Resources Technologies	305	153	87	57%	\$13,668	90	59%	\$19,295	338	164	99	60%	\$14,018
Biological and Chemical Technologies	43	56	36	64%	\$17,904	39	70%	\$25,830	53	36	31	86%	\$22,672
Business Technologies	6,145	3,165	2,043	65%	\$17,745	2,107	67%	\$23,018	6,646	3,816	2,554	67%	\$19,342
Commercial and Artistic Production Technologies	613	326	179	55%	\$12,141	192	59%	\$17,292	560	340	180	53%	\$9,718
Construction Technologies	1,250	801	415	52%	\$24,964	436	54%	\$28,903	1,315	1,071	613	57%	\$23,471
Engineering Technologies	621	323	230	71%	\$19,240	239	74%	\$28,236	768	445	292	66%	\$23,196
Health Sciences	2,146	684	550	80%	\$17,264	543	79%	\$22,822	2,365	803	642	80%	\$16,417
Industrial Technologies	1,875	926	679	73%	\$19,896	683	74%	\$27,282	1,917	1,073	801	75%	\$20,824
Public Service Technologies	7,106	2,643	1,996	76%	\$17,297	1,996	76%	\$22,005	7,233	3,538	2,689	76%	\$20,532
Transport Systems Technologies	1,242	655	407	62%	\$16,330	420	64%	\$24,442	1,368	899	586	65%	\$20,396

UNIVERSITY OF NORTH CAROLINA SYSTEM

APPENDIX TABLE 13.

UNC Bachelor's Degree Program Outcomes by Program Area, 2010-2011 Graduates

University Of North Carolina System Bachelor's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	1,187	365	289	79%	\$18,243	274	75%	\$26,882	266	73%	\$31,579	255	70%	\$35,007	255	70%	\$38,759
Natural Resources and Conservation	1,219	389	282	72%	\$12,266	248	64%	\$17,980	222	57%	\$24,406	229	59%	\$27,603	215	55%	\$33,530
Architecture and Related Services	406	171	110	64%	\$10,903	102	60%	\$26,100	96	56%	\$34,190	93	54%	\$40,662	84	49%	\$47,868
Area, Ethnic, Cultural, Gender, and Group Studies	776	332	201	61%	\$13,263	173	52%	\$17,250	157	47%	\$22,236	153	46%	\$29,175	154	46%	\$31,689
Communication, Journalism, and Related Programs	5,748	2,323	1,616	70%	\$15,239	1,476	64%	\$23,811	1,398	60%	\$29,020	1,335	57%	\$32,953	1,328	57%	\$36,751
Computer and Information Sciences and Support Services	2,432	586	440	75%	\$30,969	420	72%	\$46,014	412	70%	\$53,328	410	70%	\$61,280	394	67%	\$69,356
Education	11,028	2,863	2,530	88%	\$29,772	2,458	86%	\$32,894	2,408	84%	\$33,532	2,348	82%	\$35,681	2,272	79%	\$38,710
Engineering	5,698	1,600	1,068	67%	\$28,547	963	60%	\$45,276	935	58%	\$51,260	906	57%	\$57,670	881	55%	\$64,296
Engineering Technologies and Engineering-Related Fields	2,676	767	596	78%	\$26,220	568	74%	\$37,097	543	71%	\$42,296	546	71%	\$47,096	543	71%	\$52,771
Foreign Languages, Literatures, and Linguistics	1,007	397	278	70%	\$11,735	249	63%	\$18,924	247	62%	\$24,309	246	62%	\$26,918	237	60%	\$34,332
Family and Consumer Sciences/Human Sciences	1,549	461	367	80%	\$16,945	352	76%	\$21,410	340	74%	\$24,102	331	72%	\$28,081	326	71%	\$31,501
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	2,688	902	636	71%	\$11,957	597	66%	\$17,520	589	65%	\$22,514	578	64%	\$26,454	569	63%	\$30,404
Liberal Arts and Sciences, General Studies, and Humanities	1,091	316	215	68%	\$14,892	201	64%	\$19,474	194	61%	\$23,465	187	59%	\$27,205	184	58%	\$30,665
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	6,668	2,085	1,473	71%	\$13,900	1,290	62%	\$19,616	1,196	57%	\$23,285	1,144	55%	\$30,557	1,172	56%	\$38,176
Mathematics and Statistics	1,093	353	239	68%	\$15,414	229	65%	\$27,893	230	65%	\$32,561	204	58%	\$37,633	196	56%	\$42,076
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	969	289	206	71%	\$12,724	170	59%	\$21,033	163	56%	\$26,976	149	52%	\$33,043	144	50%	\$38,657
Parks, Recreation, Leisure, and Fitness Studies	3,959	1,258	942	75%	\$12,915	859	68%	\$18,714	810	64%	\$23,574	814	65%	\$28,813	807	64%	\$34,797
Philosophy and Religious Studies	602	227	154	68%	\$9,818	136	60%	\$15,083	123	54%	\$18,524	130	57%	\$22,980	126	56%	\$28,167
Physical Sciences	2,449	722	458	63%	\$11,940	391	54%	\$17,898	362	50%	\$26,349	341	47%	\$31,380	348	48%	\$38,313
Science Technologies/Technicians	30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	5,964	2,092	1,570	75%	\$13,064	1,433	68%	\$17,526	1,399	67%	\$22,560	1,378	66%	\$28,343	1,368	65%	\$32,964
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	3,218	956	751	79%	\$16,132	726	76%	\$24,022	681	71%	\$29,291	664	69%	\$33,307	644	67%	\$37,393
Public Administration and Social Service Professions	1,923	647	494	76%	\$14,946	468	72%	\$24,216	460	71%	\$30,824	454	70%	\$33,569	448	69%	\$36,782
Social Sciences	7,356	2,742	1,898	69%	\$13,713	1,753	64%	\$20,832	1,675	61%	\$25,880	1,631	59%	\$30,609	1,637	60%	\$34,186
Transportation and Materials Moving	24	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	4,943	1,553	1,031	66%	\$11,623	912	59%	\$17,438	847	55%	\$22,217	814	52%	\$26,164	801	52%	\$30,346
Health Professions and Related Programs	7,801	2,966	2,516	85%	\$38,522	2,435	82%	\$46,058	2,397	81%	\$45,706	2,298	77%	\$47,661	2,256	76%	\$52,297
Business, Management, Marketing, and Related Support Services	15,692	5,199	3,912	75%	\$20,648	3,719	72%	\$30,286	3,603	69%	\$36,028	3,505	67%	\$40,381	3,442	66%	\$44,944
History	2,089	775	565	73%	\$13,387	511	66%	\$20,071	492	63%	\$26,872	497	64%	\$30,501	472	61%	\$37,095

APPENDIX TABLE 14.
UNC Bachelor's Degree Program Outcomes by Program Area, 2011-2012 Graduates

University Of North Carolina System Bachelor's DegreePrograms						Common Follow-up System: Evaluative Measures, 2017 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2011-2012														
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	
Agriculture, Agriculture Operations, and Related Sciences	1,203	397	320	81%	\$17,085	310	78%	\$22,845	302	76%	\$29,586	287	72%	\$36,000	
Natural Resources and Conservation	1,358	386	263	68%	\$11,582	233	60%	\$19,443	222	58%	\$27,801	208	54%	\$32,118	
Architecture and Related Services	395	163	110	67%	\$11,544	101	62%	\$23,734	97	60%	\$38,209	94	58%	\$43,550	
Area, Ethnic, Cultural, Gender, and Group Studies	800	300	185	62%	\$10,415	164	55%	\$16,163	157	52%	\$19,976	149	50%	\$25,331	
Communication, Journalism, and Related Programs	5,665	2,219	1,548	70%	\$16,654	1,434	65%	\$24,378	1,350	61%	\$30,218	1,308	59%	\$34,218	
Computer and Information Sciences and Support Services	2,779	681	526	77%	\$33,754	487	72%	\$47,793	468	69%	\$54,890	455	67%	\$61,759	
Education	10,344	3,039	2,726	90%	\$30,838	2,649	87%	\$33,171	2,586	85%	\$35,329	2,509	83%	\$38,361	
Engineering	5,768	1,703	1,176	69%	\$32,126	1,064	62%	\$46,173	1,011	59%	\$54,114	986	58%	\$59,786	
Engineering Technologies and Engineering-Related Fields	2,540	731	558	76%	\$28,535	536	73%	\$37,929	521	71%	\$45,865	518	71%	\$51,324	
Foreign Languages, Literatures, and Linguistics	1,062	429	305	71%	\$13,935	274	64%	\$18,499	271	63%	\$24,952	252	59%	\$32,467	
Family and Consumer Sciences/Human Sciences	1,574	477	370	78%	\$16,305	338	71%	\$21,248	333	70%	\$24,159	333	70%	\$27,730	
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
English Language and Literature/Letters	2,730	1,010	749	74%	\$13,651	681	67%	\$19,777	642	64%	\$24,509	643	64%	\$29,797	
Liberal Arts and Sciences, General Studies, and Humanities	1,154	367	262	71%	\$14,276	234	64%	\$19,905	223	61%	\$23,598	219	60%	\$27,208	
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Biological and Biomedical Sciences	7,025	2,085	1,467	70%	\$14,018	1,324	64%	\$19,542	1,233	59%	\$24,611	1,180	57%	\$32,365	
Mathematics and Statistics	1,243	426	287	67%	\$24,202	276	65%	\$32,940	273	64%	\$36,186	269	63%	\$39,898	
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Multi/Interdisciplinary Studies	1,097	337	237	70%	\$14,510	204	61%	\$24,325	196	58%	\$28,507	190	56%	\$33,977	
Parks, Recreation, Leisure, and Fitness Studies	4,451	1,385	1,038	75%	\$13,228	930	67%	\$18,994	884	64%	\$25,481	871	63%	\$31,407	
Philosophy and Religious Studies	593	235	157	67%	\$12,178	128	54%	\$13,556	128	54%	\$18,808	132	56%	\$23,316	
Physical Sciences	2,789	750	450	60%	\$14,617	397	53%	\$20,465	368	49%	\$29,001	371	49%	\$33,173	
Science Technologies/Technicians	27	12	10	83%	\$44,979	11	92%	\$53,321	11	92%	\$58,996	10	83%	\$68,061	
Psychology	6,522	2,329	1,754	75%	\$13,148	1,554	67%	\$18,698	1,466	63%	\$23,491	1,426	61%	\$29,180	
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	3,471	1,196	941	79%	\$18,200	913	76%	\$26,829	882	74%	\$31,225	869	73%	\$34,457	
Public Administration and Social Service Professions	2,084	636	480	75%	\$17,786	475	75%	\$26,114	485	76%	\$29,749	475	75%	\$33,805	
Social Sciences	7,620	2,758	1,914	69%	\$15,031	1,755	64%	\$21,527	1,660	60%	\$27,002	1,652	60%	\$31,954	
Transportation and Materials Moving	43	*	*	*	*	*	*	*	*	*	*	*	*	*	
Visual and Performing Arts	5,061	1,604	1,098	68%	\$11,694	969	60%	\$16,849	910	57%	\$21,048	885	55%	\$25,810	
Health Professions and Related Programs	8,769	3,145	2,674	85%	\$38,263	2,523	80%	\$45,299	2,446	78%	\$46,283	2,352	75%	\$48,860	
Business, Management, Marketing, and Related Support Services	15,584	5,155	3,872	75%	\$23,107	3,688	72%	\$32,853	3,531	68%	\$38,461	3,433	67%	\$43,352	
History	2,082	764	535	70%	\$12,607	499	65%	\$19,488	478	63%	\$25,582	475	62%	\$30,530	

APPENDIX TABLE 15.
UNC Bachelor's Degree Program Outcomes by Program Area, 2012-2013 Graduates

University Of North Carolina System Bachelor's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>								
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	1,236	419	335	80%	\$18,941	329	79%	\$27,697	311	74%	\$32,550
Natural Resources and Conservation	1,525	435	298	69%	\$11,224	239	55%	\$19,366	227	52%	\$26,480
Architecture and Related Services	369	149	104	70%	\$12,103	98	66%	\$29,831	92	62%	\$40,232
Area, Ethnic, Cultural, Gender, and Group Studies	812	312	177	57%	\$12,002	151	48%	\$21,106	144	46%	\$21,629
Communication, Journalism, and Related Programs	5,920	2,251	1,598	71%	\$16,568	1,405	62%	\$25,315	1,362	61%	\$31,439
Computer and Information Sciences and Support Services	3,139	815	622	76%	\$35,757	597	73%	\$48,087	577	71%	\$57,159
Education	9,736	2,892	2,573	89%	\$31,230	2,506	87%	\$34,992	2,450	85%	\$38,183
Engineering	5,974	1,691	1,145	68%	\$37,667	1,054	62%	\$51,380	1,006	59%	\$58,647
Engineering Technologies and Engineering-Related Fields	2,435	697	561	80%	\$30,511	541	78%	\$41,289	526	75%	\$47,500
Foreign Languages, Literatures, and Linguistics	1,074	388	280	72%	\$15,121	249	64%	\$23,854	235	61%	\$28,331
Family and Consumer Sciences/Human Sciences	1,574	485	381	79%	\$18,121	361	74%	\$22,948	335	69%	\$26,626
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	2,671	1,051	782	74%	\$13,467	709	67%	\$21,558	692	66%	\$26,393
Liberal Arts and Sciences, General Studies, and Humanities	1,286	423	325	77%	\$16,219	295	70%	\$21,938	273	65%	\$26,292
Library Science	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	7,249	2,195	1,588	72%	\$13,963	1,363	62%	\$19,678	1,277	58%	\$25,394
Mathematics and Statistics	1,276	439	288	66%	\$20,322	272	62%	\$34,915	265	60%	\$39,844
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	1,283	423	315	74%	\$16,046	285	67%	\$21,875	268	63%	\$28,725
Parks, Recreation, Leisure, and Fitness Studies	4,928	1,477	1,129	76%	\$13,746	1,020	69%	\$19,403	969	66%	\$25,195
Philosophy and Religious Studies	573	219	149	68%	\$11,316	119	54%	\$17,158	119	54%	\$22,174
Physical Sciences	2,967	770	494	64%	\$13,355	428	56%	\$23,567	413	54%	\$30,322
Science Technologies/Technicians	22	*	*	*	*	*	*	*	*	*	*
Psychology	6,864	2,441	1,793	73%	\$14,138	1,651	68%	\$19,719	1,619	66%	\$24,557
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	3,712	1,258	995	79%	\$16,634	949	75%	\$25,868	895	71%	\$32,863
Public Administration and Social Service Professions	2,210	763	577	76%	\$16,324	571	75%	\$25,698	559	73%	\$31,304
Social Sciences	7,678	2,745	1,970	72%	\$16,221	1,813	66%	\$22,748	1,721	63%	\$28,396
Transportation and Materials Moving	52	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	5,101	1,646	1,135	69%	\$11,350	1,007	61%	\$17,366	950	58%	\$21,903
Health Professions and Related Programs	9,800	3,442	2,909	85%	\$37,023	2,774	81%	\$45,959	2,723	79%	\$48,059
Business, Management, Marketing, and Related Support Services	15,659	5,008	3,779	75%	\$23,740	3,637	73%	\$34,499	3,519	70%	\$41,202
History	2,041	777	555	71%	\$13,930	520	67%	\$21,556	519	67%	\$27,422

APPENDIX TABLE 16.
UNC Bachelor's Degree Program Outcomes by Program Area, 2013-2014 and 2014-2015 Graduates

University Of North Carolina System Bachelor's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014									Program Year 2014-2015				
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage	
Agriculture, Agriculture Operations, and Related Sciences	1,271	438	343	78%	\$20,750	324	74%	\$29,537	1,289	439	359	82%	\$23,022	
Natural Resources and Conservation	1,581	537	376	70%	\$12,232	333	62%	\$23,538	1,561	494	344	70%	\$15,288	
Architecture and Related Services	362	154	104	68%	\$10,079	96	62%	\$28,795	317	152	101	66%	\$18,979	
Area, Ethnic, Cultural, Gender, and Group Studies	762	279	168	60%	\$11,534	137	49%	\$22,622	736	276	174	63%	\$13,982	
Communication, Journalism, and Related Programs	5,929	2,237	1,599	71%	\$17,582	1,448	65%	\$25,647	6,096	2,280	1,694	74%	\$18,126	
Computer and Information Sciences and Support Services	3,468	879	685	78%	\$39,750	649	74%	\$55,560	3,779	926	692	75%	\$43,773	
Education	8,793	2,646	2,364	89%	\$33,360	2,287	86%	\$37,920	7,925	2,385	2,119	89%	\$36,126	
Engineering	6,262	1,750	1,258	72%	\$39,970	1,131	65%	\$52,786	6,843	1,807	1,203	67%	\$42,359	
Engineering Technologies and Engineering-Related Fields	2,333	636	498	78%	\$32,468	472	74%	\$42,890	2,289	581	450	77%	\$35,203	
Foreign Languages, Literatures, and Linguistics	1,062	376	280	74%	\$13,349	241	64%	\$19,496	1,049	401	303	76%	\$13,544	
Family and Consumer Sciences/Human Sciences	1,595	506	393	78%	\$16,288	380	75%	\$24,112	1,631	543	447	82%	\$18,640	
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	2,294	874	648	74%	\$13,285	588	67%	\$20,825	2,153	777	582	75%	\$15,255	
Liberal Arts and Sciences, General Studies, and Humanities	1,376	495	374	76%	\$16,624	347	70%	\$23,035	1,626	478	371	78%	\$18,375	
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	7,672	2,225	1,592	72%	\$14,289	1,448	65%	\$21,091	8,022	2,357	1,717	73%	\$15,620	
Mathematics and Statistics	1,336	402	295	73%	\$23,248	274	68%	\$38,534	1,440	464	324	70%	\$21,991	
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	1,331	415	292	70%	\$12,122	234	56%	\$20,676	1,387	427	298	70%	\$15,765	
Parks, Recreation, Leisure, and Fitness Studies	5,196	1,658	1,255	76%	\$13,806	1,121	68%	\$21,591	5,559	1,658	1,287	78%	\$14,436	
Philosophy and Religious Studies	558	189	135	71%	\$13,375	117	62%	\$19,979	554	208	139	67%	\$11,637	
Physical Sciences	3,096	828	540	65%	\$12,610	441	53%	\$26,704	3,202	837	568	68%	\$14,664	
Science Technologies/Technicians	29	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	6,832	2,466	1,849	75%	\$14,432	1,716	70%	\$20,574	6,638	2,427	1,867	77%	\$14,807	
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	3,753	1,302	1,056	81%	\$17,666	1,011	78%	\$28,985	3,855	1,283	1,075	84%	\$20,294	
Public Administration and Social Service Professions	2,454	768	576	75%	\$17,996	573	75%	\$25,940	2,555	895	692	77%	\$16,703	
Social Sciences	7,511	2,809	2,034	72%	\$15,243	1,862	66%	\$24,884	7,129	2,759	2,001	73%	\$17,262	
Transportation and Materials Moving	56	29	17	59%	\$19,906	14	48%	\$26,997	40	18	*	*	*	*
Visual and Performing Arts	5,003	1,628	1,129	69%	\$11,338	981	60%	\$19,503	4,959	1,638	1,077	66%	\$13,021	
Health Professions and Related Programs	10,290	3,665	3,107	85%	\$39,407	2,935	80%	\$48,831	10,949	3,860	3,269	85%	\$42,799	
Business, Management, Marketing, and Related Support Services	15,955	5,147	3,916	76%	\$25,469	3,720	72%	\$36,652	16,503	5,221	4,007	77%	\$27,806	
History	1,870	695	503	72%	\$15,214	466	67%	\$22,702	1,700	640	477	75%	\$14,479	

APPENDIX TABLE 17.
UNC Master's Degree Program Outcomes by Program Area, 2010-2011 Graduates

University Of North Carolina System Master's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	283	77	46	60%	\$18,409	41	53%	\$28,247	38	49%	\$33,290	36	47%	\$41,952	32	42%	\$48,002
Natural Resources and Conservation	296	92	56	61%	\$18,649	45	49%	\$35,210	46	50%	\$34,356	44	48%	\$38,626	47	51%	\$38,372
Architecture and Related Services	308	98	65	66%	\$24,525	59	60%	\$39,885	56	57%	\$41,313	55	56%	\$47,588	53	54%	\$53,502
Area, Ethnic, Cultural, Gender, and Group Studies	80	25	13	52%	\$17,738	10	40%	\$24,136	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs	185	59	31	53%	\$27,444	30	51%	\$35,973	29	49%	\$43,721	30	51%	\$46,904	29	49%	\$44,524
Computer and Information Sciences and Support Services	961	425	229	54%	\$59,275	216	51%	\$67,597	202	48%	\$73,742	183	43%	\$80,521	171	40%	\$85,836
Education	7,798	2,737	2,477	91%	\$40,336	2,377	87%	\$42,021	2,314	85%	\$43,145	2,251	82%	\$46,229	2,169	79%	\$49,095
Engineering	1,720	597	283	47%	\$43,742	240	40%	\$57,665	238	40%	\$62,344	230	39%	\$67,688	218	37%	\$74,182
Engineering Technologies and Engineering-Related Fields	438	143	110	77%	\$39,886	100	70%	\$48,164	96	67%	\$57,379	91	64%	\$64,995	95	66%	\$71,605
Foreign Languages, Literatures, and Linguistics	157	62	47	76%	\$38,087	46	74%	\$42,347	48	77%	\$42,188	44	71%	\$45,942	44	71%	\$45,131
Family and Consumer Sciences/Human Sciences	198	56	40	71%	\$24,500	44	79%	\$30,527	41	73%	\$33,970	36	64%	\$36,486	35	63%	\$36,496
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	715	241	166	69%	\$26,030	156	65%	\$30,280	146	61%	\$31,596	135	56%	\$37,783	131	54%	\$38,475
Liberal Arts and Sciences, General Studies, and Humanities	402	108	82	76%	\$39,906	79	73%	\$39,413	77	71%	\$41,863	72	67%	\$42,087	62	57%	\$43,265
Library Science	1,258	465	363	78%	\$36,000	335	72%	\$38,122	323	69%	\$40,145	318	68%	\$42,811	307	66%	\$45,742
Biological and Biomedical Sciences	699	219	119	54%	\$26,938	105	48%	\$37,877	103	47%	\$41,362	103	47%	\$45,000	108	49%	\$49,632
Mathematics and Statistics	211	119	67	56%	\$13,281	63	53%	\$27,324	60	50%	\$30,439	54	45%	\$50,227	44	37%	\$67,846
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	413	125	73	58%	\$33,995	67	54%	\$40,128	63	50%	\$43,466	61	49%	\$46,303	56	45%	\$53,256
Parks, Recreation, Leisure, and Fitness Studies	370	124	74	60%	\$17,891	56	45%	\$34,965	56	45%	\$38,386	59	48%	\$38,146	59	48%	\$42,612
Philosophy and Religious Studies	40	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences	512	164	89	54%	\$27,824	87	53%	\$39,057	79	48%	\$46,978	78	48%	\$49,611	74	45%	\$50,438
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	434	180	94	52%	\$29,933	87	48%	\$41,386	84	47%	\$44,197	81	45%	\$47,560	81	45%	\$51,161
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	197	43	36	84%	\$28,831	34	79%	\$36,099	33	77%	\$37,960	35	81%	\$40,000	34	79%	\$43,077
Public Administration and Social Service Professions	2,125	801	665	83%	\$36,145	636	79%	\$40,699	634	79%	\$41,750	594	74%	\$44,903	581	73%	\$47,052
Social Sciences	567	221	114	52%	\$20,647	100	45%	\$33,368	97	44%	\$38,723	95	43%	\$40,421	91	41%	\$47,098
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	591	215	118	55%	\$12,040	98	46%	\$20,708	87	40%	\$30,518	88	41%	\$35,264	85	40%	\$39,633
Health Professions and Related Programs	4,229	1,403	1,032	74%	\$50,414	991	71%	\$60,490	941	67%	\$63,717	937	67%	\$63,347	920	66%	\$67,185
Business, Management, Marketing, and Related Support Services	4,546	1,868	1,302	70%	\$49,640	1,238	66%	\$54,970	1,183	63%	\$62,022	1,157	62%	\$69,094	1,139	61%	\$75,959
History	374	104	63	61%	\$14,776	55	53%	\$22,242	53	51%	\$26,744	53	51%	\$29,729	57	55%	\$36,650

APPENDIX TABLE 18.
UNC Master's Degree Program Outcomes by Program Area, 2011-2012 Graduates

University Of North Carolina System Master's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce												
Post-Completion Outcome Employment and Wage Measures by Program Area		Program Year 2011-2012													
		Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion		
				Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences		268	89	57	64%	\$15,999	48	54%	\$28,626	47	53%	\$25,990	41	46%	\$36,714
Natural Resources and Conservation		291	85	45	53%	\$25,887	37	44%	\$34,919	37	44%	\$38,844	37	44%	\$38,035
Architecture and Related Services		298	134	82	61%	\$31,040	76	57%	\$37,146	61	46%	\$44,962	64	48%	\$50,553
Area, Ethnic, Cultural, Gender, and Group Studies		79	24	13	54%	\$14,427	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs		187	83	54	65%	\$24,556	46	55%	\$43,103	45	54%	\$45,544	45	54%	\$45,771
Computer and Information Sciences and Support Services		821	481	236	49%	\$62,479	218	45%	\$72,046	202	42%	\$77,837	187	39%	\$85,973
Education		7,144	2,677	2,387	89%	\$40,007	2,300	86%	\$41,223	2,212	83%	\$44,222	2,132	80%	\$47,559
Engineering		1,681	675	289	43%	\$52,109	284	42%	\$58,506	274	41%	\$64,524	261	39%	\$72,767
Engineering Technologies and Engineering-Related Fields		437	149	104	70%	\$49,013	93	62%	\$59,989	87	58%	\$69,360	86	58%	\$72,930
Foreign Languages, Literatures, and Linguistics		146	63	38	60%	\$26,059	29	46%	\$35,787	29	46%	\$36,000	41	65%	\$23,806
Family and Consumer Sciences/Human Sciences		193	52	38	73%	\$30,289	37	71%	\$31,784	35	67%	\$36,240	35	67%	\$37,765
Legal Professions and Studies		*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters		675	251	178	71%	\$24,440	167	67%	\$29,029	149	59%	\$34,948	143	57%	\$40,575
Liberal Arts and Sciences, General Studies, and Humanities		369	103	65	63%	\$31,790	62	60%	\$35,797	57	55%	\$40,212	53	51%	\$40,698
Library Science		1,077	364	274	75%	\$35,268	252	69%	\$38,914	239	66%	\$42,400	236	65%	\$46,054
Biological and Biomedical Sciences		705	244	154	63%	\$25,600	131	54%	\$35,597	126	52%	\$40,527	116	48%	\$48,236
Mathematics and Statistics		268	152	99	65%	\$16,071	84	55%	\$35,203	81	53%	\$43,422	76	50%	\$54,223
Military Technologies and Applied Sciences		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies		458	146	78	53%	\$31,704	74	51%	\$40,272	68	47%	\$44,020	69	47%	\$45,612
Parks, Recreation, Leisure, and Fitness Studies		381	148	93	63%	\$30,179	90	61%	\$33,629	82	55%	\$38,280	85	57%	\$40,868
Philosophy and Religious Studies		45	12	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences		535	166	68	41%	\$21,437	60	36%	\$35,919	60	36%	\$44,658	59	36%	\$53,496
Science Technologies/Technicians		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology		384	150	81	54%	\$25,810	70	47%	\$37,344	61	41%	\$40,000	59	39%	\$45,680
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services		178	63	51	81%	\$34,985	49	78%	\$35,635	51	81%	\$37,074	49	78%	\$40,185
Public Administration and Social Service Professions		2,125	842	685	81%	\$36,601	659	78%	\$40,695	630	75%	\$43,535	600	71%	\$45,623
Social Sciences		558	236	122	52%	\$22,821	111	47%	\$27,868	105	44%	\$34,748	110	47%	\$36,821
Transportation and Materials Moving		*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts		540	193	115	60%	\$11,561	84	44%	\$25,188	83	43%	\$27,849	83	43%	\$33,251
Health Professions and Related Programs		4,216	1,465	1,079	74%	\$50,880	1,024	70%	\$61,395	996	68%	\$63,090	979	67%	\$66,561
Business, Management, Marketing, and Related Support Services		4,438	1,733	1,209	70%	\$48,804	1,141	66%	\$55,175	1,106	64%	\$63,019	1,088	63%	\$70,802
History		375	133	70	53%	\$18,509	62	47%	\$27,254	60	45%	\$24,783	63	47%	\$30,688

APPENDIX TABLE 19.
UNC Master's Degree Program Outcomes by Program Area, 2012-2013 Graduates

University Of North Carolina System Master's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>								
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	261	98	57	58%	\$18,650	53	54%	\$32,207	49	50%	\$34,819
Natural Resources and Conservation	292	84	46	55%	\$21,818	42	50%	\$35,509	37	44%	\$43,652
Architecture and Related Services	263	92	59	64%	\$31,753	51	55%	\$44,734	47	51%	\$50,820
Area, Ethnic, Cultural, Gender, and Group Studies	86	22	14	64%	\$17,554	11	50%	\$24,600	*	*	*
Communication, Journalism, and Related Programs	205	75	51	68%	\$34,067	46	61%	\$38,638	44	59%	\$42,603
Computer and Information Sciences and Support Services	716	317	181	57%	\$60,402	160	50%	\$73,831	167	53%	\$77,735
Education	7,118	2,563	2,314	90%	\$39,495	2,211	86%	\$42,993	2,136	83%	\$46,500
Engineering	1,526	554	287	52%	\$48,404	268	48%	\$58,100	263	47%	\$64,781
Engineering Technologies and Engineering-Related Fields	418	100	75	75%	\$41,134	74	74%	\$48,706	71	71%	\$60,495
Foreign Languages, Literatures, and Linguistics	149	52	30	58%	\$30,628	32	62%	\$33,379	32	62%	\$33,715
Family and Consumer Sciences/Human Sciences	241	69	52	75%	\$31,652	48	70%	\$34,074	47	68%	\$36,500
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	675	225	171	76%	\$29,921	152	68%	\$36,836	139	62%	\$41,246
Liberal Arts and Sciences, General Studies, and Humanities	333	89	55	62%	\$34,767	52	58%	\$37,327	50	56%	\$43,776
Library Science	1,076	376	285	76%	\$36,228	273	73%	\$41,255	264	70%	\$44,187
Biological and Biomedical Sciences	792	261	169	65%	\$26,421	150	57%	\$37,688	150	57%	\$40,504
Mathematics and Statistics	332	160	105	66%	\$30,625	92	58%	\$41,556	86	54%	\$46,138
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	521	134	90	67%	\$33,029	81	60%	\$40,735	73	54%	\$41,637
Parks, Recreation, Leisure, and Fitness Studies	392	129	76	59%	\$25,857	66	51%	\$32,506	58	45%	\$40,806
Philosophy and Religious Studies	48	20	11	55%	\$7,000	10	50%	\$26,168	11	55%	\$14,649
Physical Sciences	591	197	92	47%	\$33,290	88	45%	\$43,145	87	44%	\$46,337
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*
Psychology	430	144	66	46%	\$20,857	57	40%	\$35,879	64	44%	\$40,818
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	161	39	29	74%	\$20,307	27	69%	\$39,834	27	69%	\$48,517
Public Administration and Social Service Professions	2,175	841	676	80%	\$35,244	650	77%	\$40,080	617	73%	\$44,186
Social Sciences	589	245	130	53%	\$22,993	112	46%	\$34,464	128	52%	\$28,010
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	550	216	100	46%	\$12,075	83	38%	\$19,050	83	38%	\$24,249
Health Professions and Related Programs	4,534	1,524	1,129	74%	\$50,161	1,071	70%	\$58,258	1,021	67%	\$62,015
Business, Management, Marketing, and Related Support Services	4,849	1,685	1,219	72%	\$50,553	1,172	70%	\$56,895	1,124	67%	\$65,713
History	382	102	58	57%	\$21,369	48	47%	\$33,191	54	53%	\$34,515

APPENDIX TABLE 20.

UNC Master's Degree Program Outcomes by Program Area, 2013-2014 and 2014-2015 Graduates

University Of North Carolina System Master's Degree Programs			Common Follow-up System: Evaluative Measures, 2017 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014								Program Year 2014-2015					
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage	
Agriculture, Agriculture Operations, and Related Sciences	276	80	49	61%	\$32,013	49	61%	\$39,259	274	74	53	72%	\$22,472	
Natural Resources and Conservation	300	96	55	57%	\$37,024	51	53%	\$44,093	282	89	53	60%	\$19,869	
Architecture and Related Services	265	102	68	67%	\$33,946	60	59%	\$45,407	256	107	72	67%	\$34,645	
Area, Ethnic, Cultural, Gender, and Group Studies	80	28	12	43%	\$12,067	10	36%	\$23,937	64	20	13	65%	\$11,097	
Communication, Journalism, and Related Programs	188	72	52	72%	\$35,344	49	68%	\$49,105	188	70	51	73%	\$41,619	
Computer and Information Sciences and Support Services	802	311	215	69%	\$64,131	204	66%	\$74,078	818	337	236	70%	\$72,338	
Education	6,303	2,639	2,359	89%	\$41,607	2,272	86%	\$45,253	5,281	1,822	1,601	88%	\$42,797	
Engineering	1,412	448	216	48%	\$48,323	205	46%	\$58,898	1,377	435	227	52%	\$50,738	
Engineering Technologies and Engineering-Related Fields	348	103	68	66%	\$49,440	64	62%	\$60,623	315	89	57	64%	\$56,032	
Foreign Languages, Literatures, and Linguistics	154	62	44	71%	\$32,149	49	79%	\$38,489	114	57	40	70%	\$24,471	
Family and Consumer Sciences/Human Sciences	238	56	41	73%	\$34,209	35	63%	\$39,105	250	80	53	66%	\$32,742	
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	
English Language and Literature/Letters	643	204	140	69%	\$24,346	130	64%	\$33,897	588	224	150	67%	\$22,476	
Liberal Arts and Sciences, General Studies, and Humanities	324	78	43	55%	\$36,517	39	50%	\$42,667	299	86	52	60%	\$33,840	
Library Science	947	305	217	71%	\$37,617	196	64%	\$42,827	939	295	229	78%	\$39,135	
Biological and Biomedical Sciences	774	260	171	66%	\$28,391	161	62%	\$36,834	851	262	177	68%	\$28,945	
Mathematics and Statistics	308	140	100	71%	\$32,906	84	60%	\$41,340	285	138	94	68%	\$22,916	
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	
Multi/Interdisciplinary Studies	503	119	64	54%	\$31,572	65	55%	\$37,792	508	149	83	56%	\$23,330	
Parks, Recreation, Leisure, and Fitness Studies	406	144	86	60%	\$31,334	78	54%	\$38,152	414	133	94	71%	\$29,095	
Philosophy and Religious Studies	40	18	11	61%	\$10,083	12	67%	\$17,715	38	14	13	93%	\$19,151	
Physical Sciences	575	194	88	45%	\$33,859	90	46%	\$35,619	571	202	104	51%	\$26,511	
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	
Psychology	410	146	83	57%	\$14,479	77	53%	\$26,439	407	151	85	56%	\$17,545	
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	175	42	34	81%	\$37,295	32	76%	\$43,494	166	49	36	73%	\$34,642	
Public Administration and Social Service Professions	2,174	885	729	82%	\$36,037	686	78%	\$42,001	2,273	860	702	82%	\$37,247	
Social Sciences	493	211	124	59%	\$22,418	127	60%	\$30,310	492	190	115	61%	\$23,562	
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	
Visual and Performing Arts	474	187	90	48%	\$8,349	67	36%	\$14,252	460	158	93	59%	\$15,038	
Health Professions and Related Programs	4,454	1,500	1,113	74%	\$54,175	1,050	70%	\$63,570	4,274	1,489	1,087	73%	\$52,709	
Business, Management, Marketing, and Related Support Services	5,130	1,749	1,217	70%	\$52,690	1,183	68%	\$57,662	5,312	1,878	1,244	66%	\$52,389	
History	349	118	72	61%	\$17,510	70	59%	\$30,033	322	97	59	61%	\$15,101	

APPENDIX TABLE 21.
UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2010-2011 Graduates

University Of North Carolina System										Common Follow-up System: Evaluative Measures, 2017 Report									
Doctoral Degree (Research) Programs										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Post-Completion Outcome Employment and Wage Measures by Program Area			Program Year 2010-2011																
			Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion		
					Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences			140	23	13	57%	\$32,163	*	*	*	*	*	*	*	*	*	*	*	*
Natural Resources and Conservation			204	30	13	43%	\$45,815	11	37%	\$52,501	*	*	*	*	*	*	*	*	*
Architecture and Related Services			49	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs			90	17	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Computer and Information Sciences and Support Services			448	49	25	51%	\$72,000	22	45%	\$93,445	22	45%	\$92,671	21	43%	\$87,209	19	39%	\$109,469
Education			1,589	232	185	80%	\$68,542	171	74%	\$73,213	172	74%	\$73,826	170	73%	\$73,489	164	71%	\$77,546
Engineering			1,239	154	54	35%	\$53,793	46	30%	\$78,011	45	29%	\$77,081	44	29%	\$76,645	45	29%	\$86,396
Engineering Technologies and Engineering-Related Fields			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics			158	18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Family and Consumer Sciences/Human Sciences			38	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Legal Professions and Studies			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters			219	25	13	52%	\$38,050	*	*	*	*	*	*	*	*	*	*	*	*
Liberal Arts and Sciences, General Studies, and Humanities			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Library Science			50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences			1,342	193	93	48%	\$37,740	74	38%	\$41,970	70	36%	\$49,063	75	39%	\$60,996	77	40%	\$70,989
Mathematics and Statistics			456	58	26	45%	\$54,760	22	38%	\$65,687	20	34%	\$84,566	22	38%	\$82,217	18	31%	\$92,623
Military Technologies and Applied Sciences			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies			285	33	18	55%	\$39,907	14	42%	\$50,228	15	45%	\$58,560	12	36%	\$59,614	10	30%	\$78,765
Parks, Recreation, Leisure, and Fitness Studies			60	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Philosophy and Religious Studies			80	14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences			736	84	35	42%	\$27,210	16	19%	\$42,345	16	19%	\$50,633	15	18%	\$45,500	16	19%	\$52,749
Science Technologies/Technicians			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology			377	47	22	47%	\$48,180	18	38%	\$51,956	16	34%	\$54,220	15	32%	\$55,153	14	30%	\$67,146
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions			131	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Social Sciences			555	59	22	37%	\$33,666	17	29%	\$40,707	13	22%	\$49,198	13	22%	\$47,218	13	22%	\$53,139
Transportation and Materials Moving			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts			123	24	14	58%	\$25,002	12	50%	\$35,230	13	54%	\$41,000	13	54%	\$42,977	14	58%	\$40,664
Health Professions and Related Programs			595	97	56	58%	\$47,981	47	48%	\$67,215	42	43%	\$73,734	40	41%	\$78,129	40	41%	\$81,928
Business, Management, Marketing, and Related Support Services			103	15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
History			155	20	11	55%	\$32,165	10	50%	\$29,059	*	*	*	*	*	*	*	*	*

APPENDIX TABLE 22.
UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2011-2012 Graduates

University Of North Carolina System Doctoral Degree (Research) Programs			Common Follow-up System: Evaluative Measures, 2017 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce											
Post-Completion Outcome Employment and Wage Measures by Program Area	Participants	Degree Recipients	Program Year 2011-2012											
			1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	140	29	13	45%	\$32,583	12	41%	\$48,383	11	38%	\$77,621	11	38%	\$83,619
Natural Resources and Conservation	210	36	18	50%	\$39,232	13	36%	\$36,050	11	31%	\$45,499	11	31%	\$47,413
Architecture and Related Services	50	11	*	*	*	*	*	*	*	*	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs	88	15	*	*	*	*	*	*	*	*	*	*	*	*
Computer and Information Sciences and Support Services	441	49	19	39%	\$68,364	16	33%	\$76,841	16	33%	\$101,144	17	35%	\$120,462
Education	1,563	198	158	80%	\$63,226	148	75%	\$70,089	142	72%	\$71,351	141	71%	\$74,080
Engineering	1,228	179	64	36%	\$49,975	53	30%	\$62,412	50	28%	\$78,266	49	27%	\$77,894
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	153	20	*	*	*	*	*	*	*	*	*	*	*	*
Family and Consumer Sciences/Human Sciences	41	*	*	*	*	*	*	*	*	*	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	216	23	12	52%	\$32,867	10	43%	\$43,850	10	43%	\$45,753	*	*	*
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Library Science	50	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,351	181	83	46%	\$37,569	63	35%	\$47,420	61	34%	\$58,424	61	34%	\$62,997
Mathematics and Statistics	453	69	23	33%	\$56,413	17	25%	\$75,946	14	20%	\$79,075	13	19%	\$105,556
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	272	31	20	65%	\$46,765	16	52%	\$62,555	16	52%	\$57,531	16	52%	\$80,004
Parks, Recreation, Leisure, and Fitness Studies	61	11	*	*	*	*	*	*	*	*	*	*	*	*
Philosophy and Religious Studies	78	12	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences	746	95	37	39%	\$37,850	28	29%	\$44,598	30	32%	\$52,377	29	31%	\$57,894
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	385	55	27	49%	\$41,569	26	47%	\$47,446	25	45%	\$56,701	24	44%	\$58,230
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	127	17	*	*	*	*	*	*	*	*	*	*	*	*
Social Sciences	546	72	24	33%	\$39,052	18	25%	\$41,865	14	19%	\$57,360	13	18%	\$68,687
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	120	18	*	*	*	*	*	*	*	*	*	*	*	*
Health Professions and Related Programs	579	103	55	53%	\$57,043	46	45%	\$73,428	40	39%	\$76,376	42	41%	\$84,321
Business, Management, Marketing, and Related Support Services	100	17	*	*	*	*	*	*	*	*	*	*	*	*
History	157	21	13	62%	\$37,162	10	48%	\$37,118	*	*	*	*	*	*

APPENDIX TABLE 23.
UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2012-2013 Graduates

University Of North Carolina System Doctoral Degree (Research) Programs			Common Follow-up System: Evaluative Measures, 2017 Report <i>Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce</i>								
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	140	17	*	*	*	*	*	*	*	*	*
Natural Resources and Conservation	199	28	16	57%	\$42,010	15	54%	\$38,730	11	39%	\$34,985
Architecture and Related Services	54	12	*	*	*	*	*	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	*	*	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs	90	14	*	*	*	*	*	*	*	*	*
Computer and Information Sciences and Support Services	411	59	19	32%	\$73,996	21	36%	\$63,511	18	31%	\$87,408
Education	1,641	229	167	73%	\$66,155	153	67%	\$70,879	142	62%	\$72,865
Engineering	1,193	213	97	46%	\$44,176	69	32%	\$70,730	62	29%	\$84,966
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	157	20	*	*	*	*	*	*	*	*	*
Family and Consumer Sciences/Human Sciences	40	14	*	*	*	*	*	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	223	38	22	58%	\$38,945	15	39%	\$42,589	15	39%	\$39,301
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*
Library Science	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,409	215	95	44%	\$40,155	79	37%	\$45,072	73	34%	\$50,080
Mathematics and Statistics	445	50	17	34%	\$49,637	15	30%	\$81,244	13	26%	\$93,401
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	310	41	21	51%	\$45,450	19	46%	\$67,205	17	41%	\$81,924
Parks, Recreation, Leisure, and Fitness Studies	60	10	*	*	*	*	*	*	*	*	*
Philosophy and Religious Studies	75	*	*	*	*	*	*	*	*	*	*
Physical Sciences	754	110	53	48%	\$31,500	35	32%	\$45,485	32	29%	\$44,500
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*
Psychology	411	59	26	44%	\$41,675	17	29%	\$52,863	15	25%	\$62,607
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	132	17	12	71%	\$49,284	11	65%	\$61,949	10	59%	\$70,630
Social Sciences	522	74	25	34%	\$41,306	23	31%	\$42,185	17	23%	\$55,830
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	127	24	15	63%	\$22,650	14	58%	\$30,837	13	54%	\$32,885
Health Professions and Related Programs	595	111	54	49%	\$68,058	51	46%	\$80,344	49	44%	\$83,223
Business, Management, Marketing, and Related Support Services	101	16	*	*	*	*	*	*	*	*	*
History	162	21	10	48%	\$25,650	*	*	*	*	*	*

APPENDIX TABLE 24.

UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2013-2014 and 2014-2015 Graduates

University Of North Carolina System			Common Follow-up System: Evaluative Measures, 2017 Report										
Doctoral Degree (Research) Programs			Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014									Program Year 2014-2015			
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage
Agriculture, Agriculture Operations, and Related Sciences	149	27	12	44%	\$36,329	*	*	*	141	33	19	58%	\$58,427
Natural Resources and Conservation	200	38	22	58%	\$40,826	18	47%	\$47,619	186	41	17	41%	\$38,783
Architecture and Related Services	45	*	*	*	*	*	*	*	45	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	*	*	*	*	*	*	*	*	12	*	*	*	*
Communication, Journalism, and Related Programs	85	13	*	*	*	*	*	*	81	13	*	*	*
Computer and Information Sciences and Support Services	374	60	19	32%	\$68,267	16	27%	\$83,735	345	54	17	31%	\$58,087
Education	1,632	217	177	82%	\$63,962	162	75%	\$71,453	1,643	250	211	84%	\$65,819
Engineering	1,049	224	106	47%	\$41,937	78	35%	\$53,048	941	197	81	41%	\$48,335
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	152	18	*	*	*	*	*	*	139	19	10	53%	\$33,936
Family and Consumer Sciences/Human Sciences	36	*	*	*	*	*	*	*	38	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	202	26	18	69%	\$39,950	13	50%	\$50,571	198	26	16	62%	\$37,149
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*	*	*
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,386	230	113	49%	\$38,000	87	38%	\$46,010	1,317	214	102	48%	\$34,842
Mathematics and Statistics	406	69	19	28%	\$33,998	15	22%	\$59,999	372	62	21	34%	\$80,959
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	322	42	22	52%	\$55,915	18	43%	\$59,725	324	45	33	73%	\$47,215
Parks, Recreation, Leisure, and Fitness Studies	53	13	*	*	*	*	*	*	68	*	*	*	*
Philosophy and Religious Studies	75	13	*	*	*	*	*	*	71	*	*	*	*
Physical Sciences	739	110	35	32%	\$40,497	25	23%	\$52,379	728	107	46	43%	\$38,814
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	428	58	20	34%	\$34,229	19	33%	\$42,325	421	65	26	40%	\$43,985
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	127	20	11	55%	\$64,937	10	50%	\$70,013	126	23	11	48%	\$6,575
Social Sciences	504	65	15	23%	\$45,351	13	20%	\$50,030	480	74	28	38%	\$24,430
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	132	20	13	65%	\$32,250	11	55%	\$39,452	130	27	23	85%	\$22,359
Health Professions and Related Programs	590	101	53	52%	\$61,572	48	48%	\$65,972	600	100	57	57%	\$54,118
Business, Management, Marketing, and Related Support Services	92	20	*	*	*	*	*	*	82	15	*	*	*
History	143	24	10	42%	\$25,732	*	*	*	143	13	*	*	*

APPENDIX TABLE 25.
UNC Doctoral (Professional) Degree Program Outcomes by Program Area

University Of North Carolina System										Common Follow-up System: Evaluative Measures, 2017 Report									
Doctoral Degree (Professional Practice) Programs										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2010-2011																		
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			5 Years After Completion				
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage		
Legal Professions and Studies	1,367	423	236	56%	\$29,926	229	54%	\$45,332	221	52%	\$49,861	219	52%	\$52,824	213	50%	\$59,519		
Health Professions and Related Programs	2,458	597	333	56%	\$49,547	334	56%	\$64,011	334	56%	\$70,648	345	58%	\$84,833	338	57%	\$98,581		

University Of North Carolina System						Common Follow-up System: Evaluative Measures, 2017 Report									
Doctoral Degree (Professional Practice)Programs						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2011-2012														
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion			4 Years After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage	
Legal Professions and Studies	1,304	424	222	52%	\$25,203	215	51%	\$43,455	209	49%	\$48,646	202	48%	\$57,672	
Health Professions and Related Programs	2,626	601	320	53%	\$50,380	334	56%	\$62,808	342	57%	\$69,233	348	58%	\$83,711	

University Of North Carolina System						Common Follow-up System: Evaluative Measures, 2017 Report					
Doctoral Degree (Professional Practice) Programs						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce					
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2012-2013										
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			3 Years After Completion		
			Employed	%	Med. Wage	Employed	%	Med. Wage	Employed	%	Med. Wage
Legal Professions and Studies	1,317	413	246	60%	\$25,840	246	60%	\$42,791	220	53%	\$50,075
Health Professions and Related Programs	2,827	600	323	54%	\$51,841	332	55%	\$65,516	332	55%	\$69,806

University Of North Carolina System						Common Follow-up System: Evaluative Measures, 2017 Report								
Doctoral Degree (Professional Practice) Programs						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce								
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2013-2014								Program Year 2014-2015					
	Parti cipants	Degree Recipients	1 Year After Completion			2 Years After Completion			Parti cipants	Degree Recipients	1 Year After Completion			
			Employed	%	Med. Wage	Employed	%	Med. Wage			Employed	%	Med. Wage	
Legal Professions and Studies	1,335	383	239	62%	\$27,518	229	60%	\$50,127	1,270	406	241	59%	\$29,983	
Health Professions and Related Programs	3,021	675	369	55%	\$52,614	384	57%	\$63,693	3,235	776	432	56%	\$53,026	



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