

# The North Carolina **COMMON FOLLOW-UP SYSTEM** Evaluation Report

2021



**NC DEPARTMENT**  
*of* **COMMERCE**  
LABOR & ECONOMIC  
ANALYSIS



NORTH CAROLINA  
COMMON FOLLOW-UP SYSTEM

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# THE NORTH CAROLINA COMMON FOLLOW-UP SYSTEM (CFS)

## 2021 EVALUATION REPORT

APRIL 2021

### Background

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 Article 4 of the North Carolina General Statute](#) requires the North Carolina Department of <sup>1</sup>Commerce's Labor and Economic Analysis Division (LEAD) to develop, implement, and maintain a common follow-up information management system 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. Information about CFS operational activities is available on the [CFS website](#)<sup>2</sup>.

### 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 and effectiveness. As part of its responsibility for evaluating programs contained in the CFS, LEAD has performed a series of analyses to measure the educational and employment outcomes of individuals participating in several North Carolina public education, employment, and training programs. The goal is to develop key evaluative performance indicators related to employment and wage outcomes, as well as to 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 focus 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?

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<sup>1</sup> [https://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter\\_96/Article\\_4.html](https://www.ncleg.net/EnactedLegislation/Statutes/HTML/ByArticle/Chapter_96/Article_4.html)

<sup>2</sup> <https://tools.nccareers.org/cfs/>

- To what extent do these individuals enroll in subsequent education, employment, or training programs?

The outcome measures are calculated for five 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, summary employment and wage statistics by industry. Post-enrollment measures include participation in education, employment, and training programs.

## » Methodology

Data from the CFS is utilized to perform a series of longitudinal analyses that focus on assessing the educational and employment outcomes of individuals participating in publicly supported education, employment, or training-related programs. Each year, the participating agencies supply data files for the program year. For the 2018-2019 year, the participating agencies submitted data files covering the time period July 1, 2018 through June 30, 2019. 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 (UI) wage files and unemployment insurance claims-related information.

Analyses are accomplished by matching individual program participant data across programs and agencies to information in the unemployment insurance wage file. Specifically, CFS data is used to compile outcome information for five program-year cohorts. Each participating agency 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 are derived for each program exiter/completer cohort. Information from the quarterly UI wage data is utilized to develop employment and wage statistics. Wage data for each exiter is 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 are summed to produce a two-year post-exit/completion wage. Successive four quarters are summed to produce subsequent post exit/completion annual wage statistics. If an individual has wages in any of the four quarters of the corresponding year, they are counted as employed. Employment and wage outcomes are compiled separately for each cohort.

Further analyses of industry employment and wage patterns are also undertaken. Each employer 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 are 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 is found to be employed in more than one industry sector, they are counted separately in each sector but only once in the total employment statistics.

Analysis of post participation in additional education, employment, and training is completed by cross-matching the information across entities and programs. Three measures are developed; the first measure includes the number and percentage of individuals who participated in public higher education. This is compiled by cross-matching the exit/completion cohort to records from the North Carolina Community College System and from the University of North Carolina System. If individuals are found to be participating in any program in either System, they are counted as enrolled in public higher education. The second post-participation measure is compiled by cross-matching each exit/completion cohort to data from the rest of the participating entities. If an individual is found to be enrolled or receiving services from them, they are counted as being enrolled in further public education, employment, or training. The third measure integrates the second measure along with the employment-related information. The result is a measure of whether individuals are 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 is not without limitations. Information supplied by participating agencies comes from existing systems within each agency. Any data limitations that exist in those source systems, data repositories, and corresponding data elements are necessarily transferred along with the data to the CFS. Also, CFS does not include information from North Carolina's private educational institutions, out-of-state colleges and universities, or non-participating employment and training-related service providers.

The unemployment insurance wage data has its own strengths and limitations. Wage files only include information on individuals working in jobs covered by North Carolina's unemployment insurance laws. Employment-related information includes: total quarterly wages paid to an individual, size of the employing firm, and the NAICS code of the firm. Wage information is not available for workers outside of North Carolina, workers 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, federal government employees, enrolled in the military, and other non-covered workers). Employment-related data that cannot be determined includes: the entry-on-duty date of employment, the employment type (i.e., permanent, temporary, part- or full-time), length of time 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 continuing to work with GDAC to enhance system capability to match data utilizing additional identity resolution methodologies, which will assist in future analytical efforts.

The 2021 CFS Evaluation Report provided information on the state's educational and workforce development training activities in the midst of the COVID-19 pandemic. While the pandemic had a significant impact on many sectors of the economy, this report was not able to measure the effect of the pandemic on the training outcomes due to report time period ending June 30, 2020, only a few months into the pandemic.

## » 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 focus on 17 programs across four agencies. These include the following:

### **THE 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

### **THE 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

### **THE 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 took effect on July 1, 2015 and 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.<sup>3</sup>

WIA Title I Adult<sup>4</sup> and Dislocated Worker<sup>5</sup> programs were designed to increase employment and employment retention, increase earnings of dislocated workers, and enhance customer satisfaction for both participants and employers. Both WIOA and WIA Adult and Dislocated Worker programs provide a variety of education, employment-related, and training services 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.

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 skills 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 of 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.<sup>6</sup>

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<sup>3</sup> U.S. Department of Labor Employment and Training Administration website, <http://www.doleta.gov/wioa/>

<sup>4</sup> U.S. Department of Labor Employment and Training Administration website, <https://www.dol.gov/agencies/eta/workforce-investment/adult>

<sup>5</sup> U.S. Department of Labor Employment and Training Administration website, <https://www.dol.gov/agencies/eta/workforce-investment/dislocated-workers>

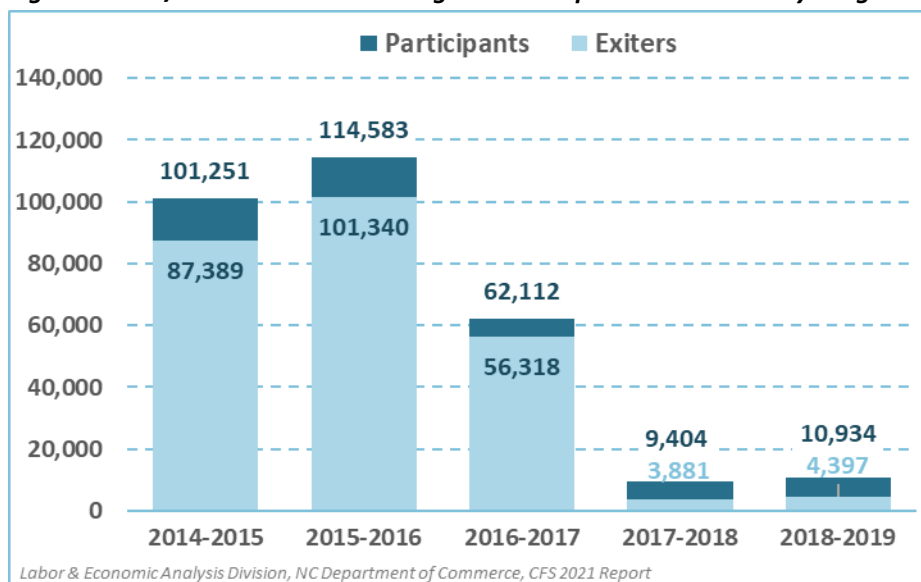
<sup>6</sup> U.S. Department of Labor Employment and Training Administration website, <https://youth.workforcegps.org/-/media/Communities/youth/Files/Fact-Sheets/07012020WIOA-Youth-OWIFactSheet-long.ashx>

## » WIA/WIOA Title I Adult Program Outcomes

Analyses of program participant counts revealed that the number of WIA and WIOA Adult program participants peaked in the 2015-2016 program year and has since dropped significantly (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.

WIOA was implemented (replacing WIA) in July 2015, therefore post-exit wage and employment statistics represent participants who received WIA services in 2014-2015, and WIOA services in the program years from 2015-2016 through 2018-2019. Employment and wage outcomes were derived for each cohort of WIA/WIOA 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.

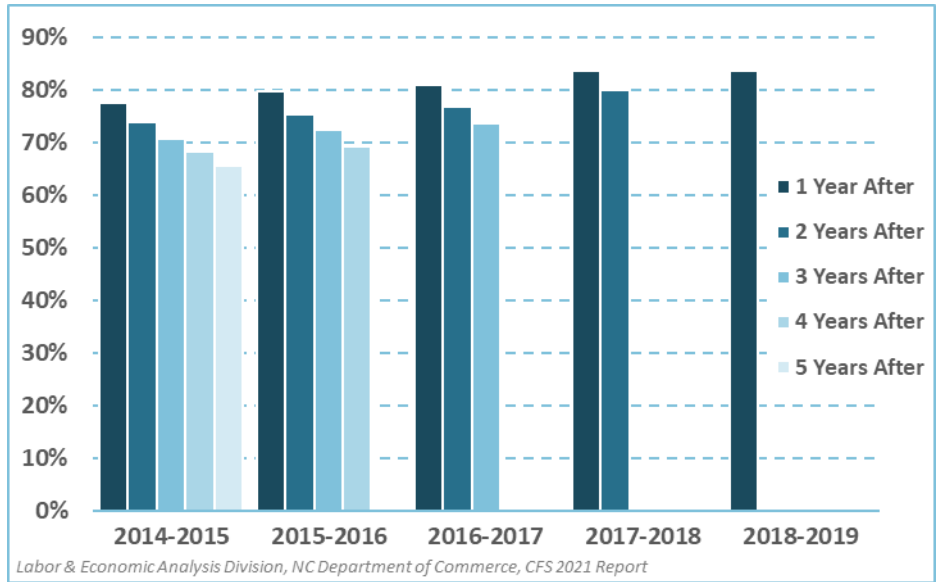
**Figure 1. WIA/WIOA Title I Adult Program Participants and Exiters by Program Year**



One-year post-exit employment rates have increased steadily across the five program years (Figure 2). While one-year post-exit enrollment in North Carolina public higher education remained fairly steady for the first 3 years of the study period (2014-2015 to 2016-2017 program years) then experienced a significant increase for the final two years (2017-2018 to 2018-2019 program years (Table 1), which probably was a result of a smaller cohort size in these years.

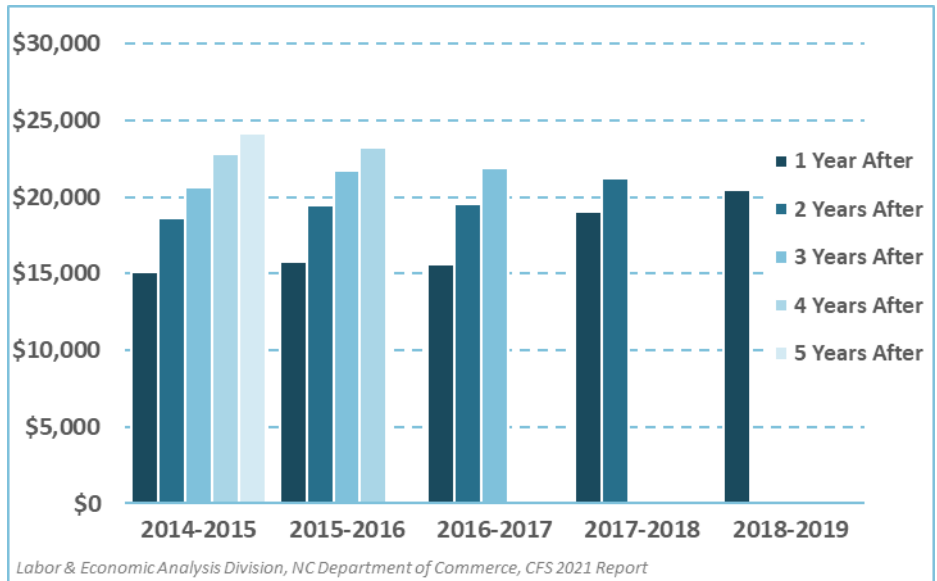
As shown in Figure 2, longer term post-exit employment measures show a slight decline in the percentage of WIA/WIOA Title I Adult exiters employed in North Carolina. This is common across most workforce training and education programs and may be due in part to former participants leaving the state or entering employment not covered by unemployment insurance.

**Figure 2. Percentage of WIA/WIOA Title I Adult Exiters Employed in North Carolina After Exit, by Year of Exit**



One-year post-exit median annual wages ranged from \$15,078 for the 2014-2015 program year exiters to a high of \$20,487 for the 2018-2019 program year exiters (Figure 3 and Table 1).<sup>7</sup> For all cohorts, the median wages of former participants rose consistently in each subsequent year following program exit. For example, the median wages of participants who exited in program year 2014-2015 increased from \$15,078 one year after exit to \$24,180 five years after exit.

**Figure 3. Median Wage of WIA/WIOA Title I Adult Program Exiters in North Carolina, by Year of Exit**

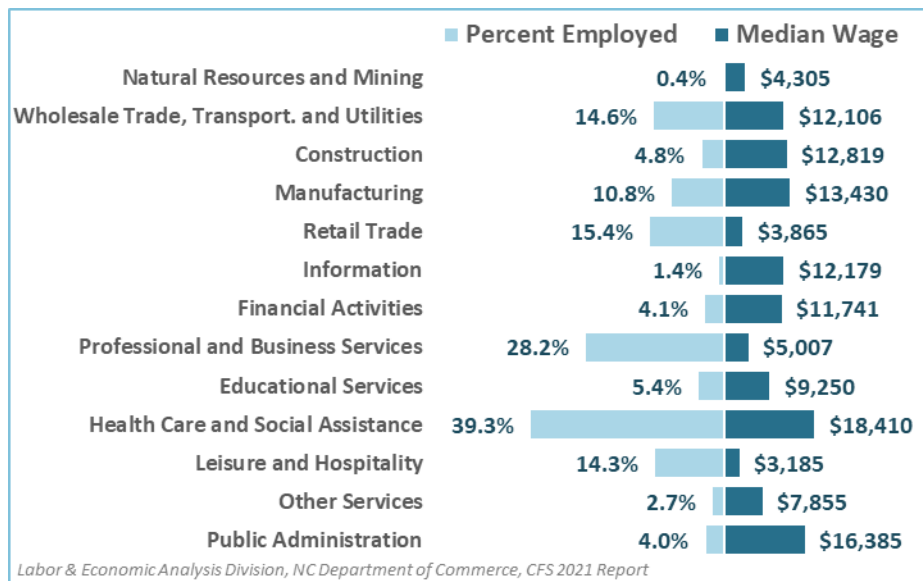


Employment outcomes by industry one year after exit for the 2018-2019 cohort show 39% of WIA/WIOA Adult program exiters were employed in the Health Care and Social Assistance industry, earning a median

<sup>7</sup> The 2019 CFS Evaluation Report indicated a one-year post-exit median wage for 2014-2015 WIA Adult exiters of \$15,069. The wage files are continually updated, creating minor calculation changes over time.

annual wage of \$18,410. Other top employing industries for the 2018-2019 exiting cohort include Professional and Business Services (28%); Retail Trade (15%); Wholesale Trade, Transport, and Utilities (15%); and Leisure and Hospitality (14%). Of these industries, Health Care and Social Assistance had the highest median annual wage (\$18,410), followed by Wholesale Trade, Transport, and Utilities (\$12,106) (Figure 4 and Table 1).

**Figure 4. 2018-2019 WIA/WIOA Title I Adult Exiters One Year After Exit: Percentage Employed and Median Wage by Industry**



Overall short-term wages for exiters have risen over time and employing industries have shifted. The median wage of the 2014-2015 WIA Adult exiters was \$15,078 during the first year after exit while the comparable wage for 2018-2019 exiters was \$20,487. By contrast, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>8</sup> The two most recent program years (2017-2018 and 2018-2019) show an increase in the share of WIOA exiters who later found employment in the Health Care and Social Assistance industry. For each of the 3 prior program years (2014-2015, 2015-2016, and 2016-2017) approximately 15% of exiters were employed in this industry one year after completion. While for the 2017-2018 and 2018-2019 program years, approximately 39% of WIOA exiters were employed in Health Care and Social Assistance one year after program completion. This increase in the share of Health Care and Social Assistance employment was accompanied by a decrease in the share of Manufacturing employment from 20% one-year post-exit for the 2016-2017 program year to 10.8% one-year post-exit for the 2018-2019 cohort.

<sup>8</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Table 1. WIA/WIOA Title I Adult Program Participants and Exiters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry**

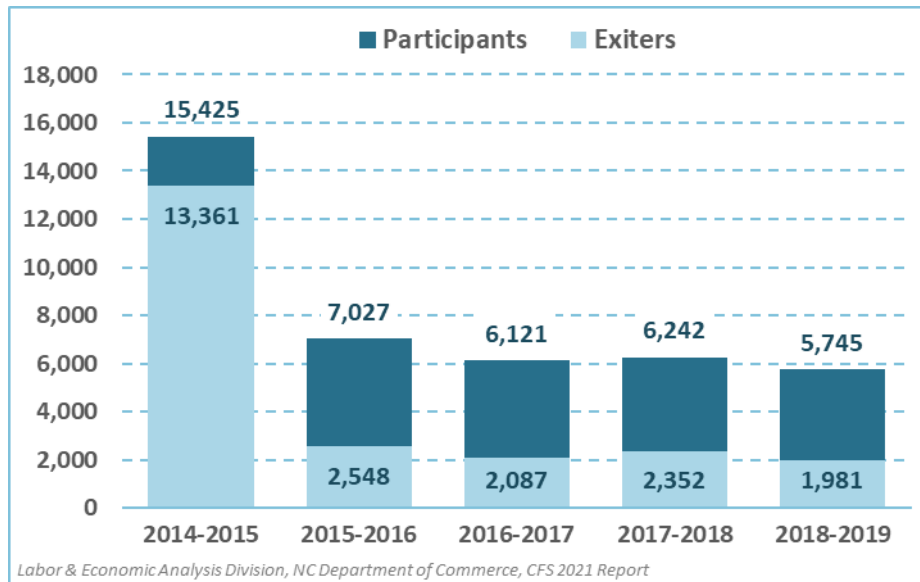
North Carolina Department of Commerce, Division of Workforce Solutions						Common Follow-up System: Evaluative Measures, 2021 Report										
Workforce Investment Act - Adult Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015	
Participants	101,251	114,583	62,112	9,404	10,934	101,251	114,583	62,112	9,404	101,251	114,583	62,112	101,251	114,583	101,251	
Exiters	87,389	101,340	56,318	3,881	4,397	87,389	101,340	56,318	3,881	87,389	101,340	56,318	87,389	101,340	87,389	
<b>Post-Completion Outcome Measures</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Exiters Employed In North Carolina	N	67,659	80,732	45,531	3,242	3,676	64,531	76,408	43,203	3,100	61,858	73,484	41,434	59,564	70,239	57,295
	%	77%	80%	81%	84%	84%	74%	75%	77%	80%	71%	73%	74%	68%	69%	66%
Exiters' Wages in North Carolina	Mean	\$18,784	\$19,872	\$20,011	\$21,685	\$22,992	\$22,551	\$23,649	\$24,186	\$24,253	\$24,448	\$26,098	\$26,638	\$26,671	\$27,798	\$28,096
	Median	\$15,078	\$15,750	\$15,646	\$19,062	\$20,487	\$18,656	\$19,426	\$19,531	\$21,225	\$20,655	\$21,766	\$21,885	\$22,798	\$23,248	\$24,180
Exiters Enrolled in NC Public Higher Education	N	12,727	14,365	8,211	869	933	9,711	10,826	6,203	730	8,156	9,235	5,521	7,026	7,752	6,069
	%	15%	14%	15%	22%	21%	11%	11%	11%	19%	9%	9%	10%	8%	8%	7%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	40,740	42,518	25,203	2,992	2,830	27,581	33,524	22,578	2,918	23,961	33,152	22,534	24,115	33,949	25,163
	%	47%	42%	45%	77%	64%	32%	33%	40%	75%	27%	33%	40%	28%	34%	29%
Exiters Enrolled or Employed in NC	N	74,718	86,805	48,937	3,712	4,120	68,370	80,920	46,368	3,653	65,303	78,298	45,120	63,331	76,030	61,687
	%	86%	86%	87%	96%	94%	78%	80%	82%	94%	75%	77%	80%	72%	75%	71%
<b>Exiters' Employment by Industry*</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		0.9%	0.9%	1.1%	0.6%	0.4%	0.9%	0.9%	0.8%	0.4%	0.8%	0.8%	0.7%	0.8%	0.7%	0.7%
Wholesale Trade, Transport. and Utilities		8.8%	10.0%	10.4%	12.0%	14.6%	9.5%	10.1%	10.3%	12.3%	9.7%	10.3%	11.2%	9.7%	11.1%	10.2%
Construction		6.9%	7.0%	6.0%	4.4%	4.8%	6.9%	6.8%	5.8%	4.5%	6.8%	6.8%	5.6%	6.8%	6.5%	6.6%
Manufacturing		18.1%	18.6%	20.3%	12.7%	10.8%	19.0%	19.5%	20.8%	12.6%	19.5%	19.9%	21.5%	20.2%	19.9%	20.0%
Retail Trade		17.7%	18.0%	17.5%	15.3%	15.4%	16.6%	16.4%	16.1%	14.0%	15.7%	15.7%	15.9%	15.1%	15.4%	15.1%
Information		1.4%	1.5%	1.4%	1.3%	1.4%	1.4%	1.6%	1.6%	1.3%	1.3%	1.7%	1.6%	1.4%	1.6%	1.4%
Financial Activities		4.5%	4.9%	4.3%	3.9%	4.1%	4.8%	5.1%	4.7%	4.0%	5.0%	5.3%	5.2%	5.2%	5.6%	5.3%
Professional and Business Services		39.6%	40.2%	40.8%	29.5%	28.2%	32.7%	33.9%	34.9%	25.1%	30.0%	31.5%	31.5%	28.9%	28.9%	26.5%
Educational Services		4.8%	5.0%	4.9%	4.2%	5.4%	5.1%	5.2%	4.8%	4.3%	5.4%	5.2%	4.9%	5.2%	5.3%	5.3%
Health Care and Social Assistance		15.1%	14.8%	16.6%	39.8%	39.3%	15.9%	15.4%	17.0%	39.6%	16.4%	15.9%	17.4%	16.7%	16.3%	17.0%
Leisure and Hospitality		17.9%	18.6%	18.9%	15.4%	14.3%	16.6%	17.1%	17.2%	14.7%	15.9%	16.1%	16.6%	15.4%	15.4%	14.7%
Other Services		3.0%	3.1%	3.0%	2.8%	2.7%	3.2%	3.0%	3.0%	2.5%	3.1%	3.1%	3.1%	3.1%	3.0%	3.1%
Public Administration		3.1%	3.2%	3.1%	4.3%	4.0%	3.6%	3.5%	3.3%	4.6%	3.8%	3.8%	3.7%	4.0%	4.0%	4.3%
<b>Exiters' Median Wages by Industry of Employment</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$4,186	\$4,286	\$3,189	\$5,583	\$4,305	\$5,069	\$6,146	\$5,665	\$8,616	\$7,860	\$7,561	\$7,947	\$11,492	\$10,139	\$10,827
Wholesale Trade, Transport. and Utilities		\$10,159	\$9,348	\$8,957	\$13,076	\$12,106	\$13,963	\$14,205	\$14,017	\$14,283	\$16,589	\$17,160	\$15,994	\$18,670	\$18,371	\$20,374
Construction		\$12,651	\$13,233	\$10,461	\$14,717	\$12,819	\$16,259	\$16,936	\$14,510	\$18,422	\$18,839	\$18,347	\$17,781	\$21,893	\$22,925	\$24,043
Manufacturing		\$13,144	\$11,340	\$11,605	\$15,118	\$13,430	\$18,550	\$16,930	\$18,017	\$18,030	\$20,949	\$20,796	\$21,355	\$23,342	\$22,377	\$24,974
Retail Trade		\$5,402	\$5,160	\$4,568	\$3,380	\$3,865	\$7,614	\$6,998	\$6,170	\$4,053	\$8,419	\$7,796	\$6,503	\$9,262	\$8,336	\$9,434
Information		\$9,409	\$10,821	\$11,440	\$9,534	\$12,179	\$14,627	\$15,529	\$19,619	\$10,832	\$19,043	\$19,857	\$22,814	\$22,153	\$25,010	\$20,490
Financial Activities		\$12,647	\$13,038	\$12,940	\$8,415	\$11,741	\$19,164	\$20,731	\$19,186	\$13,952	\$23,101	\$24,779	\$22,744	\$25,717	\$27,085	\$28,734
Professional and Business Services		\$6,372	\$6,345	\$5,774	\$4,964	\$5,007	\$6,767	\$6,926	\$6,444	\$5,185	\$7,032	\$7,370	\$7,008	\$7,302	\$8,022	\$7,869
Educational Services		\$8,285	\$9,063	\$8,730	\$6,354	\$9,250	\$11,627	\$13,038	\$12,174	\$7,713	\$14,110	\$15,330	\$14,462	\$16,800	\$17,625	\$19,239
Health Care and Social Assistance		\$10,096	\$10,624	\$10,721	\$15,918	\$18,410	\$13,507	\$13,773	\$14,385	\$18,894	\$15,120	\$15,566	\$16,133	\$16,866	\$17,180	\$18,568
Leisure and Hospitality		\$4,429	\$4,140	\$3,749	\$3,035	\$3,185	\$5,235	\$4,764	\$4,600	\$3,318	\$5,360	\$5,203	\$4,669	\$5,563	\$5,433	\$5,839
Other Services		\$5,409	\$5,016	\$4,948	\$4,606	\$7,855	\$7,233	\$7,300	\$7,269	\$6,244	\$9,046	\$7,935	\$7,978	\$10,059	\$9,919	\$10,442
Public Administration		\$16,778	\$16,073	\$15,351	\$16,398	\$16,385	\$23,580	\$24,100	\$23,342	\$24,702	\$26,849	\$26,753	\$26,544	\$29,849	\$29,759	\$32,036
<b>Exiters' Average Wages by Industry of Employment</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$9,801	\$10,488	\$9,324	\$15,227	\$8,921	\$11,321	\$13,117	\$13,267	\$17,622	\$14,226	\$15,694	\$16,288	\$16,465	\$17,884	\$17,847
Wholesale Trade, Transport. and Utilities		\$16,012	\$15,667	\$15,871	\$17,150	\$17,784	\$20,204	\$20,601	\$20,573	\$19,089	\$22,169	\$23,576	\$22,934	\$24,827	\$24,670	\$25,987
Construction		\$17,335	\$18,110	\$16,327	\$17,795	\$17,179	\$20,811	\$21,744	\$20,468	\$21,347	\$22,897	\$23,905	\$23,751	\$25,508	\$26,706	\$27,514
Manufacturing		\$16,742	\$16,181	\$16,731	\$18,194	\$18,657	\$21,027	\$21,007	\$22,964	\$21,275	\$23,209	\$24,387	\$25,036	\$25,441	\$25,281	\$26,939
Retail Trade		\$9,208	\$9,310	\$8,563	\$7,637	\$8,126	\$11,848	\$11,720	\$10,958	\$8,473	\$13,012	\$13,042	\$12,129	\$14,259	\$13,933	\$14,751
Information		\$18,010	\$21,304	\$20,960	\$15,667	\$16,292	\$24,414	\$26,828	\$29,212	\$21,542	\$27,041	\$30,510	\$33,960	\$30,769	\$36,741	\$31,347
Financial Activities		\$19,211	\$19,635	\$20,477	\$14,267	\$18,809	\$25,341	\$26,497	\$26,002	\$20,118	\$29,041	\$30,367	\$29,825	\$31,665	\$33,309	\$35,025
Professional and Business Services		\$11,629	\$12,434	\$11,902	\$9,945	\$10,772	\$13,581	\$14,424	\$14,098	\$11,216	\$14,255	\$15,483	\$15,572	\$15,297	\$17,158	\$16,687
Educational Services		\$12,984	\$13,531	\$13,564	\$11,275	\$13,446	\$16,272	\$17,279	\$17,410	\$13,647	\$18,543	\$19,384	\$19,298	\$20,484	\$21,130	\$22,141
Health Care and Social Assistance		\$13,556	\$14,393	\$14,870	\$20,038	\$21,827	\$16,742	\$17,227	\$18,170	\$22,594	\$18,147	\$19,122	\$20,008	\$20,038	\$20,702	\$21,602
Leisure and Hospitality		\$7,631	\$7,381	\$6,939	\$5,928	\$5,575	\$8,613	\$8,511	\$8,228	\$6,692	\$9,133	\$9,277	\$8,701	\$9,783	\$9,526	\$10,090
Other Services		\$10,088	\$10,211	\$10,497	\$7,358	\$10,537	\$12,650	\$13,642	\$13,888	\$10,448	\$14,319	\$14,565	\$15,468	\$15,607	\$16,509	\$16,765
Public Administration		\$18,322	\$18,230	\$18,066	\$20,178	\$19,049	\$22,445	\$22,777	\$23,074	\$25,590	\$25,150	\$24,966	\$25,329	\$27,541	\$27,668	\$29,618

\* 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, the number of participants in the WIA/WIOA Dislocated Worker program between the 2014-2015 and 2018-2019 program years has dropped. In particular, the 2014-2015 program year had much higher participation than subsequent 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.

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

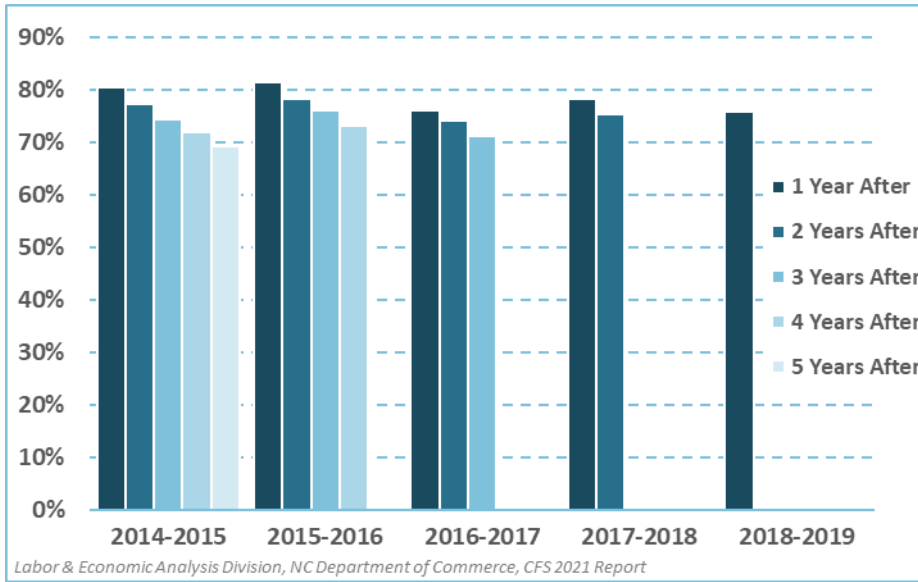


WIOA was implemented (replacing WIA) in July 2015, therefore post-exit wage and employment statistics represent participants who received WIA services in 2014-2015, and WIOA services in the program years from 2015-2016 through 2018-2019. Employment and wage outcomes were derived for each WIA/WIOA Title I Dislocated Worker exit cohort between 2014-2015 and 2018-2019. 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 were 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 a high of 82% for 2015-2016 exiters to a low of 76% for 2016-2017 and 2018-2019 exiters (Figure 6 and Table 2). One-year post-exit enrollment in NC public higher education ranged from 13% for the 2014-2015 cohort to 17% for the 2015-2016 and 2017-2018 cohorts (Table 2). Longer term post-exit employment measures indicate that five years after exit, 69% of the 2014-2015 exiting cohort were employed in North Carolina, earning a median salary of \$28,815. Post-exit employment rates were relatively steady across cohorts for a given post-exit year.



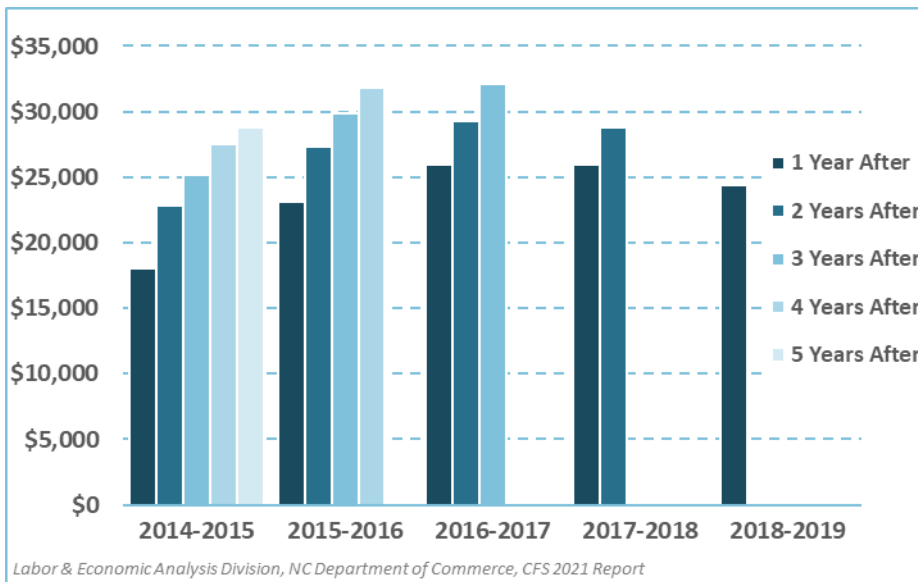
**Figure 6. Percentage of WIA/WIOA Title I Dislocated Worker Program Exiters Employed in North Carolina After Completion, by Year of Exit**



One-year post-exit median wages rose from \$18,039 in the 2014-2015 cohort to \$25,957 for the 2016-2017 cohort then slightly declined to \$24,367 for the 2018-2019 cohort (Figure 7 and Table 2).

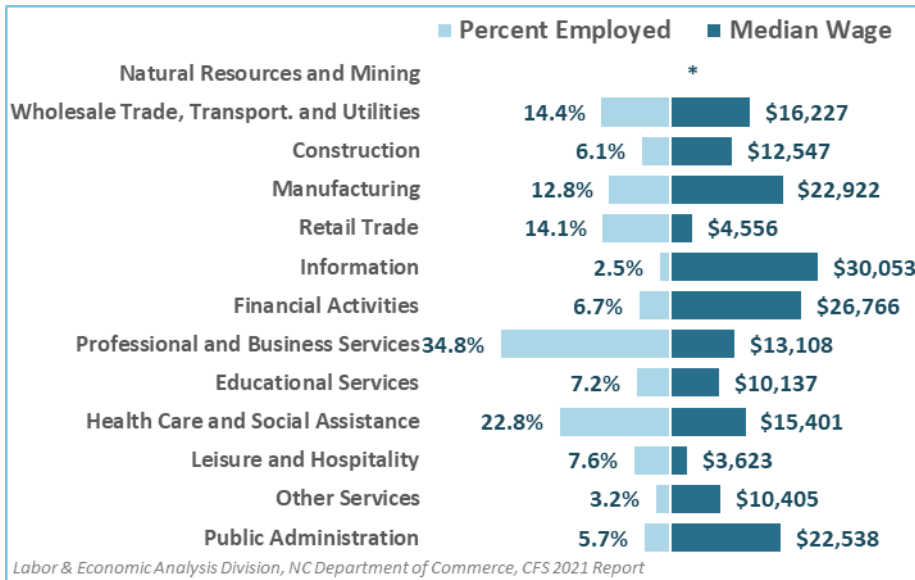
However, median post-exit wages increased over time within all cohorts. The 2014-2015 exiters experienced a growth in median wages from \$18,039 one year after exit to \$25,217 three years after exit and \$28,815 at the five-year mark, while the 2016-2017 exiters saw median wages grow from \$25,957 one-year post-exit to \$32,073 three years post-exit.

**Figure 7. Median Wage of WIA/WIOA 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 2018-2019 exiting cohort indicate that 35% of WIOA Dislocated Worker program participants were subsequently employed in the Professional and Business Services industry, earning a median annual wage of \$13,108. Other industries frequently employing this 2018-2019 cohort one year after exiting the program include Health Care and Social Assistance (23%); Wholesale Trade, Transport, and Utilities (14%); Retail Trade (14%); and Manufacturing (13%). Of these top employing industries, Manufacturing was associated with the highest median annual wage (\$22,922).

**Figure 8. 2018-2019 WIA/WIOA Title I Dislocated Worker Exiters One Year After Exit: Percentage Employed and Median Wage by Industry**



Overall, there has been a slight drop in short-term employment rates for WIA/WIOA Dislocated Worker program exiters. This is indicated by the one-year post-employment 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/WIOA Dislocated Worker participants who exited in the 2014-2015 program year was \$28,815 five years after exit. By contrast, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>9</sup>

<sup>9</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Table 2. WIA/WIOA Title I Dislocated Worker Program Participants and Exitters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry**

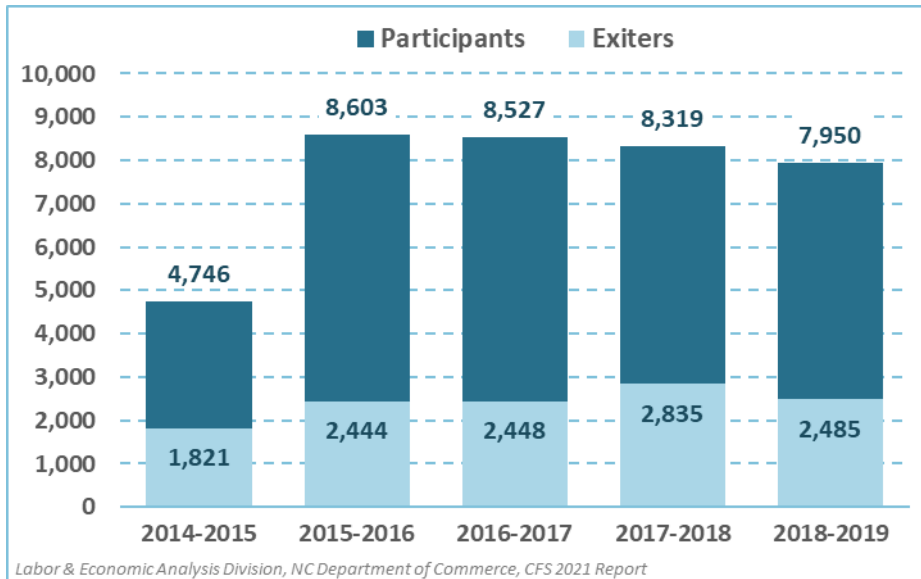
North Carolina Department of Commerce, Division of Workforce Solutions							Common Follow-up System: Evaluative Measures, 2021 Report									
Workforce Investment Act - Dislocated Worker Program							Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		15,425	7,027	6,121	6,242	5,745	15,425	7,027	6,121	6,242	15,425	7,027	6,121	15,425	7,027	15,425
Exitters		13,361	2,548	2,087	2,352	1,981	13,361	2,548	2,087	2,352	13,361	2,548	2,087	13,361	2,548	13,361
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exitters Employed In North Carolina		N 10,761 81%	2,079 82%	1,589 76%	1,843 78%	1,502 76%	10,346 77%	1,994 78%	1,546 74%	1,775 75%	9,948 74%	1,937 76%	1,489 71%	9,616 72%	1,865 73%	9,271 69%
Exitters' Wages in North Carolina		Mean \$22,646	\$27,243	\$29,429	\$29,569	\$28,451	\$27,776	\$30,737	\$32,712	\$33,301	\$29,923	\$33,195	\$35,528	\$32,726	\$35,291	\$33,764
		Median \$18,039	\$23,153	\$25,957	\$25,908	\$24,367	\$22,781	\$27,351	\$29,305	\$28,820	\$25,217	\$29,815	\$32,073	\$27,480	\$31,841	\$28,815
Exitters Enrolled in NC Public Higher Education		N 1,785 13%	424 17%	340 16%	405 17%	295 15%	1,329 10%	343 13%	276 13%	318 14%	1,143 9%	275 11%	217 10%	1,006 8%	242 9%	833 6%
Exitters Enrolled in NC Public Education, Employment, or Training Program		N 5,772 43%	1,077 42%	962 46%	1,675 71%	1,183 60%	3,795 28%	853 33%	958 46%	1,590 68%	3,254 24%	901 35%	947 45%	3,386 25%	909 36%	3,544 27%
Exitters Enrolled or Employed in NC		N 11,564 87%	2,229 87%	1,740 83%	2,171 92%	1,766 89%	10,737 80%	2,102 82%	1,704 82%	2,109 90%	10,327 77%	2,055 81%	1,655 79%	10,041 75%	2,017 79%	9,797 73%
<b>Exitters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.4%	0.6%	0.8%	*	*	0.4%	0.6%	*	0.7%	0.4%	*	*	0.4%	*	0.4%
Wholesale Trade, Transport. and Utilities		11.6%	14.6%	13.9%	13.1%	14.4%	12.1%	13.8%	13.3%	12.8%	11.9%	14.6%	14.2%	12.1%	14.7%	13.1%
Construction		7.3%	5.6%	6.5%	5.6%	6.1%	7.2%	5.3%	5.4%	5.4%	6.8%	5.5%	5.0%	7.1%	5.5%	6.8%
Manufacturing		13.1%	15.0%	16.4%	17.3%	12.8%	14.2%	14.7%	17.1%	17.4%	14.8%	15.8%	16.6%	15.3%	14.9%	15.3%
Retail Trade		15.7%	14.2%	13.8%	12.5%	14.1%	14.6%	12.4%	12.6%	12.8%	13.9%	11.6%	12.3%	13.5%	12.8%	13.0%
Information		2.2%	2.6%	2.1%	2.5%	2.5%	2.1%	2.7%	2.2%	3.2%	2.2%	2.3%	2.1%	2.4%	2.2%	2.3%
Financial Activities		6.4%	6.5%	5.0%	5.8%	6.7%	7.2%	5.9%	4.9%	6.2%	7.3%	6.2%	5.9%	7.5%	7.1%	7.7%
Professional and Business Services		42.8%	37.2%	36.5%	40.0%	34.8%	35.4%	31.5%	32.2%	34.4%	31.2%	30.1%	29.8%	29.4%	27.9%	27.6%
Educational Services		5.8%	6.7%	8.1%	6.0%	7.2%	6.1%	7.2%	7.4%	5.6%	6.8%	6.7%	7.5%	6.6%	6.7%	6.6%
Health Care and Social Assistance		14.2%	20.7%	18.1%	19.0%	22.8%	15.7%	21.5%	19.3%	18.6%	15.6%	20.7%	18.7%	16.0%	20.9%	16.4%
Leisure and Hospitality		13.5%	8.1%	7.7%	8.4%	7.6%	12.8%	7.2%	7.3%	7.8%	12.4%	7.7%	7.8%	11.8%	7.6%	11.1%
Other Services		3.4%	3.0%	3.1%	2.7%	3.2%	3.5%	3.6%	3.2%	2.7%	3.1%	2.8%	2.6%	3.3%	3.1%	3.1%
Public Administration		3.5%	5.8%	6.2%	5.5%	5.7%	3.9%	6.0%	6.4%	5.9%	4.1%	6.4%	6.6%	4.0%	6.7%	4.2%
<b>Exitters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$7,966	\$3,834	\$3,283	*	*	\$5,180	\$8,400	*	\$13,459	\$12,292	*	*	\$6,997	*	\$7,106
Wholesale Trade, Transport. and Utilities		\$11,592	\$18,033	\$17,689	\$12,846	\$16,227	\$17,905	\$24,895	\$24,111	\$21,890	\$21,853	\$21,815	\$25,588	\$23,242	\$25,038	\$23,647
Construction		\$14,926	\$13,684	\$12,990	\$17,381	\$12,547	\$19,482	\$20,892	\$16,796	\$26,224	\$23,980	\$21,229	\$19,709	\$25,857	\$24,390	\$29,103
Manufacturing		\$16,352	\$19,422	\$26,938	\$26,576	\$22,922	\$23,664	\$27,290	\$35,447	\$29,582	\$26,416	\$31,428	\$39,042	\$29,095	\$32,602	\$29,929
Retail Trade		\$6,034	\$6,338	\$6,549	\$4,998	\$4,556	\$7,580	\$7,945	\$7,300	\$4,399	\$9,216	\$9,285	\$8,754	\$10,788	\$8,645	\$11,793
Information		\$12,974	\$30,200	\$25,221	\$32,820	\$30,053	\$21,030	\$26,862	\$35,544	\$36,811	\$19,323	\$36,146	\$40,160	\$24,057	\$30,421	\$29,272
Financial Activities		\$17,842	\$18,421	\$23,443	\$21,385	\$26,766	\$24,751	\$36,355	\$36,247	\$23,399	\$27,389	\$33,345	\$34,862	\$30,093	\$33,128	\$31,722
Professional and Business Services		\$9,237	\$10,260	\$12,951	\$11,537	\$13,108	\$10,434	\$12,499	\$15,167	\$13,968	\$10,780	\$14,208	\$17,040	\$11,647	\$14,586	\$12,350
Educational Services		\$8,355	\$9,420	\$14,434	\$12,929	\$10,137	\$12,765	\$13,383	\$12,282	\$15,390	\$18,168	\$13,748	\$10,845	\$19,503	\$16,398	\$21,686
Health Care and Social Assistance		\$12,908	\$16,218	\$15,816	\$16,911	\$15,401	\$17,114	\$18,863	\$19,421	\$20,080	\$19,265	\$23,047	\$22,624	\$21,705	\$24,040	\$23,750
Leisure and Hospitality		\$5,383	\$3,767	\$3,247	\$3,278	\$3,623	\$6,266	\$5,500	\$3,978	\$2,303	\$7,338	\$5,062	\$3,011	\$7,007	\$6,162	\$8,140
Other Services		\$7,180	\$10,962	\$8,248	\$7,897	\$10,405	\$7,102	\$8,952	\$6,760	\$7,731	\$11,354	\$11,716	\$18,220	\$11,939	\$8,606	\$14,027
Public Administration		\$16,307	\$21,070	\$24,831	\$24,563	\$22,538	\$23,413	\$27,412	\$30,473	\$26,092	\$27,823	\$30,516	\$31,489	\$31,635	\$32,206	\$33,719
<b>Exitters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$10,602	\$11,213	\$14,613	*	*	\$13,950	\$17,988	*	\$21,810	\$17,413	*	*	\$15,775	*	\$19,500
Wholesale Trade, Transport. and Utilities		\$17,609	\$20,470	\$23,128	\$21,095	\$21,168	\$23,222	\$26,337	\$27,365	\$25,307	\$26,716	\$26,070	\$29,979	\$28,480	\$28,176	\$29,461
Construction		\$18,494	\$18,839	\$19,328	\$20,977	\$19,068	\$23,462	\$25,598	\$21,666	\$31,279	\$26,956	\$27,386	\$24,319	\$29,820	\$29,250	\$32,174
Manufacturing		\$21,072	\$23,558	\$27,872	\$28,854	\$27,101	\$27,581	\$29,686	\$34,616	\$31,691	\$30,350	\$33,008	\$38,533	\$32,853	\$34,961	\$34,474
Retail Trade		\$10,456	\$10,731	\$10,605	\$10,226	\$10,484	\$13,186	\$12,924	\$12,758	\$11,273	\$14,601	\$14,853	\$14,099	\$16,067	\$15,421	\$16,934
Information		\$20,751	\$34,593	\$31,616	\$36,897	\$33,493	\$27,253	\$37,066	\$44,503	\$45,476	\$29,072	\$42,003	\$48,614	\$32,339	\$44,797	\$36,154
Financial Activities		\$22,431	\$27,024	\$29,023	\$27,673	\$31,761	\$28,031	\$39,991	\$42,691	\$33,030	\$31,180	\$40,329	\$42,612	\$34,520	\$40,719	\$36,301
Professional and Business Services		\$16,090	\$19,496	\$21,531	\$20,772	\$22,257	\$19,291	\$20,993	\$23,591	\$24,245	\$20,478	\$22,821	\$27,372	\$21,988	\$25,009	\$22,958
Educational Services		\$14,012	\$12,901	\$18,205	\$17,684	\$16,515	\$18,082	\$17,566	\$17,327	\$21,088	\$20,933	\$17,586	\$18,113	\$22,969	\$20,023	\$24,512
Health Care and Social Assistance		\$16,669	\$19,039	\$18,641	\$19,667	\$18,303	\$20,193	\$21,438	\$21,858	\$23,049	\$22,327	\$24,892	\$23,748	\$24,372	\$25,492	\$25,598
Leisure and Hospitality		\$8,389	\$7,838	\$8,064	\$7,371	\$7,479	\$9,528	\$9,714	\$8,258	\$7,679	\$10,534	\$10,114	\$7,453	\$11,081	\$11,692	\$11,854
Other Services		\$12,011	\$15,662	\$16,098	\$13,547	\$15,963	\$14,986	\$15,733	\$15,404	\$16,870	\$17,941	\$18,338	\$23,045	\$18,884	\$18,649	\$21,681
Public Administration		\$18,973	\$21,114	\$22,318	\$23,834	\$22,443	\$23,693	\$25,458	\$27,871	\$25,708	\$26,743	\$27,298	\$29,354	\$29,626	\$29,995	\$32,220

\* 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 a significant increase in the number of WIA Youth program participants in 2015-2016 program year, followed by small but steady decrease in subsequent years (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 (replacing WIA) in July 2015, therefore post-exit wage and employment statistics represent participants who received WIA services in 2014-2015, and WIOA services in the program years from 2015-2016 through 2018-2019. Employment and wage outcomes were derived for each WIA/WIOA 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).

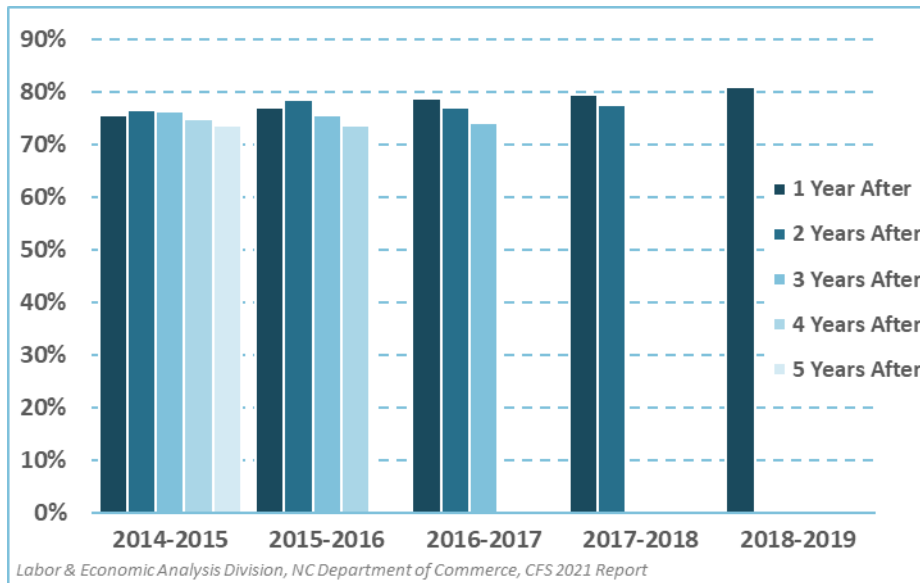
One-year post-participation employment rates reflect a steady increase across the five exiting cohorts, reflecting a higher percentage of exiters employed for each subsequent cohort. Employment rates across the five program years rose from 76% for the 2014-2015 program year exiters to 81% for the 2018-2019 program year exiters (Figure 10 and Table 3). At the same time, rates of one-year post-exit enrollment in NC public higher education declined across all cohorts from 33% to 25% (Table 3), but are still among the highest of any workforce development program.

One-year post-exit median wages have increased overall across cohorts, from \$5,861 for the 2014-2015 exiters, to \$9,092 for the 2018-2019 completers (Figure 11). It is important to note that WIA/WIOA Title I Youth participants range in age from 14 to 21 and are more likely to be in high school or higher education, and less likely to be working full time than older workers.

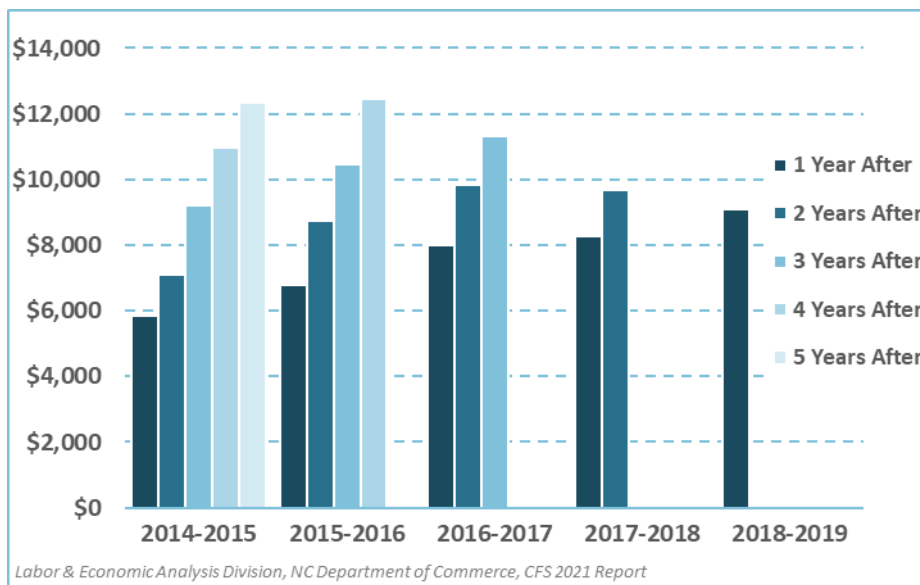
Longer term post-exit employment and wage measures for the WIA/WIOA Title I Youth program indicate that employment rates were relatively stable over time within each cohort, while wages rose over time within each

cohort. For example, median wages for the 2014-2015 cohort started at \$5,861 one-year post exit and increased to \$12,335 at five years post exit.

**Figure 10. Percentage of WIA/WIOA Title I Youth Program Exiters Employed in North Carolina After Exit, by Year of Exit**

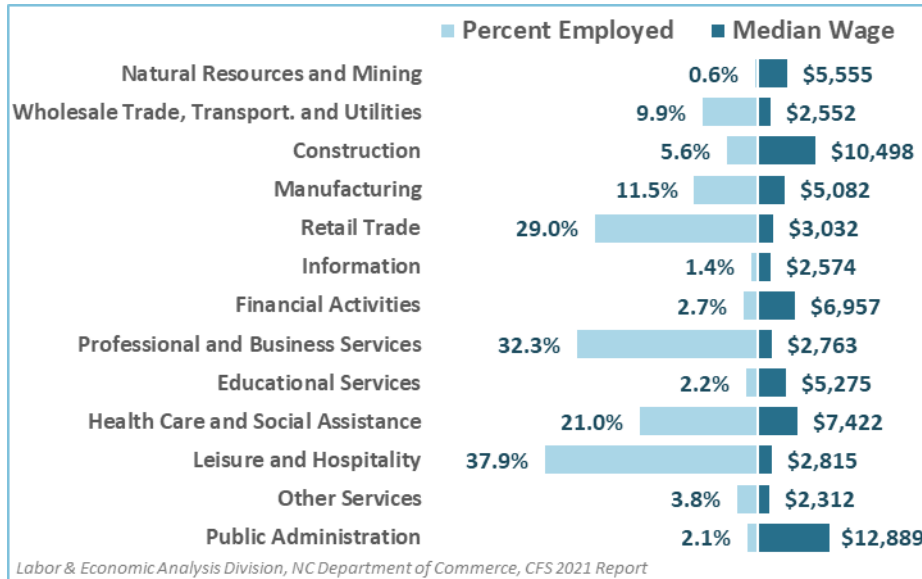


**Figure 11. Median Wage of WIA/WIOA Title I Youth Program Exiters in North Carolina, by Year of Exit**



As shown in Figure 12 and Table 3, one-year employment outcomes by industry for the 2018-2019 cohort exiters indicate that 38% of the Youth program exiters found employment in the Leisure and Hospitality industry, earning a median wage of \$2,815. Other top employing industries include Professional and Business Services (32%), Retail Trade (29%), and Health Care and Social Assistance (21%).

**Figure 12. 2018-2019 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 short-term median wages for the WIA/WIOA 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 stable. In addition, while the median wages of WIA/WIOA 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, 2021 Report						
Workforce Investment Act - Youth Program										Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce						
Program Year	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2016-2017	
Participants	4,746	8,603	8,527	8,319	7,950	4,746	8,603	8,527	8,319	4,746	8,603	8,527	4,746	8,603	4,746	
Exiters	1,821	2,444	2,448	2,835	2,485	1,821	2,444	2,448	2,835	1,821	2,444	2,448	1,821	2,444	1,821	
<b>Post-Completion Outcome Measures</b>																
<b>1 Year After</b>																
Exiters Employed in North Carolina	N	1,376	1,882	1,931	2,254	2,015	1,396	1,919	1,885	2,198	1,389	1,846	1,813	1,366	1,801	1,343
	%	76%	77%	79%	80%	81%	77%	79%	77%	78%	76%	76%	74%	75%	74%	74%
Exiters' Wages in North Carolina	Mean	\$8,005	\$9,093	\$10,488	\$11,042	\$12,110	\$9,914	\$11,027	\$12,432	\$12,828	\$11,869	\$13,099	\$14,170	\$14,075	\$15,079	\$15,894
	Median	\$5,861	\$6,796	\$7,987	\$8,274	\$9,092	\$7,093	\$8,736	\$9,821	\$9,686	\$9,220	\$10,471	\$11,318	\$10,967	\$12,438	\$12,335
Exiters Enrolled in NC Public Higher Education	N	603	699	652	770	609	489	549	519	631	426	452	445	343	372	320
	%	33%	29%	27%	27%	25%	27%	22%	21%	22%	23%	18%	18%	19%	15%	18%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	1,122	1,212	1,667	2,396	1,655	831	1,065	1,686	2,309	723	1,079	1,636	719	1,043	741
	%	62%	50%	68%	85%	67%	46%	44%	69%	81%	40%	44%	67%	39%	43%	41%
Exiters Enrolled or Employed in NC	N	1,623	2,126	2,244	2,717	2,293	1,535	2,076	2,221	2,691	1,496	2,018	2,168	1,474	1,984	1,460
	%	89%	87%	92%	96%	92%	84%	85%	91%	95%	82%	83%	89%	81%	81%	80%
<b>Exiters' Employment by Industry*</b>																
<b>1 Year After</b>																
Natural Resources and Mining	*	0.6%	0.8%	0.7%	0.6%	*	0.7%	1.0%	*	*	0.9%	1.0%	*	0.7%	*	*
Wholesale Trade, Transport. and Utilities	4.1%	7.0%	7.7%	7.9%	9.9%	6.2%	8.2%	7.9%	9.8%	7.8%	9.4%	9.5%	10.0%	10.8%	11.2%	11.2%
Construction	2.8%	3.7%	4.1%	3.4%	5.6%	3.2%	4.4%	4.6%	3.9%	3.2%	4.8%	5.0%	4.2%	5.3%	4.1%	4.1%
Manufacturing	9.3%	10.0%	11.5%	11.5%	11.5%	9.6%	12.2%	13.8%	12.6%	12.2%	13.3%	14.8%	14.2%	14.8%	14.4%	14.4%
Retail Trade	28.2%	31.8%	28.3%	29.0%	29.0%	30.9%	28.2%	26.9%	28.1%	29.1%	27.7%	25.6%	25.8%	26.6%	24.9%	24.9%
Information	*	0.9%	1.8%	1.0%	1.4%	0.9%	0.7%	1.7%	1.1%	1.0%	1.4%	1.8%	1.2%	1.3%	1.0%	1.0%
Financial Activities	2.0%	1.8%	2.4%	2.7%	2.7%	2.3%	2.3%	2.3%	3.0%	3.1%	3.0%	3.3%	3.1%	3.3%	4.0%	4.0%
Professional and Business Services	31.6%	35.8%	32.6%	37.3%	32.3%	35.0%	37.5%	34.5%	34.9%	34.0%	36.7%	33.5%	35.8%	32.8%	30.2%	30.2%
Educational Services	6.9%	2.7%	2.3%	2.4%	2.2%	2.5%	3.0%	2.8%	2.7%	2.7%	2.5%	2.6%	3.7%	3.4%	3.9%	3.9%
Health Care and Social Assistance	12.5%	14.8%	16.7%	17.7%	21.0%	13.5%	15.4%	17.9%	18.9%	17.5%	17.1%	19.6%	17.3%	17.4%	18.5%	18.5%
Leisure and Hospitality	46.8%	43.6%	42.1%	40.4%	37.9%	43.5%	40.3%	38.7%	36.1%	40.7%	36.3%	35.0%	38.6%	35.5%	37.5%	37.5%
Other Services	3.3%	3.0%	3.0%	3.8%	3.8%	2.9%	2.9%	3.0%	3.6%	2.8%	3.3%	3.3%	2.9%	2.9%	3.5%	3.5%
Public Administration	1.5%	1.9%	1.8%	2.0%	2.1%	2.4%	1.8%	2.1%	2.2%	2.6%	2.0%	2.3%	3.1%	1.9%	2.9%	2.9%
<b>Exiters' Median Wages by Industry of Employment</b>																
<b>1 Year After</b>																
Natural Resources and Mining	*	\$1,314	\$1,766	\$1,288	\$5,555	*	\$1,353	\$583	*	*	\$3,341	\$2,229	*	\$4,315	*	*
Wholesale Trade, Transport. and Utilities	\$1,865	\$2,984	\$2,975	\$3,545	\$2,552	\$2,038	\$3,346	\$3,474	\$3,646	\$3,288	\$5,119	\$5,337	\$3,218	\$5,105	\$4,428	\$4,428
Construction	\$2,118	\$5,331	\$3,919	\$6,227	\$10,498	\$2,957	\$4,681	\$6,526	\$8,081	\$8,127	\$8,173	\$9,713	\$6,681	\$9,701	\$11,467	\$11,467
Manufacturing	\$2,877	\$4,774	\$3,659	\$4,786	\$5,082	\$5,229	\$7,114	\$5,834	\$4,901	\$7,166	\$6,584	\$6,066	\$8,531	\$8,473	\$7,612	\$7,612
Retail Trade	\$2,462	\$2,531	\$2,626	\$2,752	\$3,032	\$2,888	\$3,071	\$3,265	\$3,498	\$3,123	\$3,629	\$3,577	\$3,515	\$3,509	\$4,300	\$4,300
Information	*	\$1,818	\$4,882	\$2,047	\$2,574	\$7,615	\$12,283	\$5,802	\$4,638	\$10,726	\$5,046	\$6,135	\$3,024	\$4,941	\$16,648	\$16,648
Financial Activities	\$2,218	\$2,301	\$4,206	\$5,097	\$6,957	\$4,433	\$3,076	\$4,817	\$8,253	\$2,641	\$3,149	\$6,012	\$6,331	\$3,856	\$4,943	\$4,943
Professional and Business Services	\$2,581	\$2,452	\$2,357	\$2,715	\$2,763	\$2,240	\$2,212	\$2,548	\$2,720	\$2,670	\$2,434	\$3,046	\$2,656	\$2,769	\$2,568	\$2,568
Educational Services	\$1,334	\$3,632	\$3,044	\$4,824	\$5,275	\$4,836	\$3,338	\$3,006	\$5,284	\$10,175	\$4,419	\$4,379	\$6,161	\$6,178	\$8,415	\$8,415
Health Care and Social Assistance	\$5,224	\$4,749	\$6,947	\$7,286	\$7,422	\$7,781	\$6,601	\$7,071	\$6,913	\$6,209	\$7,672	\$8,656	\$8,666	\$10,351	\$12,064	\$12,064
Leisure and Hospitality	\$2,533	\$2,435	\$2,790	\$2,479	\$2,815	\$2,611	\$2,643	\$3,193	\$3,060	\$3,178	\$2,859	\$3,295	\$3,397	\$3,180	\$3,223	\$3,223
Other Services	\$2,202	\$2,065	\$2,350	\$1,633	\$2,312	\$2,858	\$2,140	\$3,288	\$2,742	\$3,520	\$2,756	\$2,523	\$4,840	\$3,093	\$2,837	\$2,837
Public Administration	\$7,650	\$6,030	\$10,592	\$16,020	\$12,889	\$9,134	\$8,373	\$12,977	\$22,491	\$10,388	\$10,635	\$16,432	\$13,837	\$22,518	\$16,137	\$16,137
<b>Exiters' Average Wages by Industry of Employment</b>																
<b>1 Year After</b>																
Natural Resources and Mining	*	\$6,669	\$4,603	\$4,092	\$6,783	*	\$8,316	\$4,366	*	*	\$8,383	\$7,486	*	\$8,414	*	*
Wholesale Trade, Transport. and Utilities	\$4,717	\$5,887	\$7,751	\$7,991	\$7,518	\$4,922	\$7,817	\$7,909	\$7,942	\$7,477	\$8,485	\$10,775	\$8,863	\$10,846	\$9,869	\$9,869
Construction	\$6,455	\$8,433	\$9,983	\$10,529	\$13,763	\$7,569	\$9,962	\$12,233	\$12,044	\$12,938	\$13,688	\$14,873	\$12,145	\$15,628	\$16,124	\$16,124
Manufacturing	\$6,979	\$8,307	\$9,221	\$9,282	\$10,965	\$9,031	\$10,949	\$10,953	\$10,274	\$11,095	\$12,036	\$11,931	\$13,034	\$13,030	\$14,166	\$14,166
Retail Trade	\$5,039	\$4,974	\$5,372	\$5,358	\$5,652	\$5,828	\$5,922	\$6,438	\$6,375	\$5,800	\$7,172	\$6,986	\$6,856	\$7,975	\$7,907	\$7,907
Information	*	\$6,079	\$10,246	\$4,068	\$6,502	\$9,546	\$14,011	\$13,672	\$7,891	\$10,547	\$10,202	\$12,442	\$10,063	\$11,119	\$20,104	\$20,104
Financial Activities	\$6,622	\$6,532	\$10,600	\$12,113	\$10,332	\$10,125	\$7,572	\$12,621	\$14,838	\$9,979	\$9,309	\$13,557	\$14,434	\$13,176	\$15,745	\$15,745
Professional and Business Services	\$4,859	\$4,695	\$5,013	\$5,520	\$5,560	\$4,949	\$4,995	\$5,760	\$6,127	\$5,123	\$5,633	\$6,521	\$5,317	\$6,229	\$6,141	\$6,141
Educational Services	\$2,656	\$6,564	\$6,578	\$7,988	\$9,637	\$8,488	\$7,322	\$6,382	\$9,381	\$13,604	\$10,659	\$7,413	\$11,270	\$11,312	\$12,327	\$12,327
Health Care and Social Assistance	\$8,349	\$8,213	\$9,695	\$10,226	\$11,074	\$11,353	\$9,921	\$10,604	\$11,750	\$10,140	\$11,144	\$11,874	\$13,312	\$12,658	\$15,300	\$15,300
Leisure and Hospitality	\$3,977	\$4,047	\$4,566	\$4,548	\$4,537	\$4,317	\$4,602	\$5,277	\$5,411	\$5,173	\$5,322	\$5,797	\$5,928	\$5,887	\$6,106	\$6,106
Other Services	\$4,131	\$3,870	\$4,755	\$4,545	\$4,851	\$5,281	\$6,461	\$5,986	\$5,176	\$6,101	\$6,341	\$5,368	\$7,732	\$8,712	\$6,337	\$6,337
Public Administration	\$12,747	\$10,002	\$13,976	\$16,647	\$15,831	\$12,477	\$12,666	\$15,284	\$21,117	\$15,385	\$16,240	\$18,592	\$16,895	\$22,987	\$21,230	\$21,230

\* 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

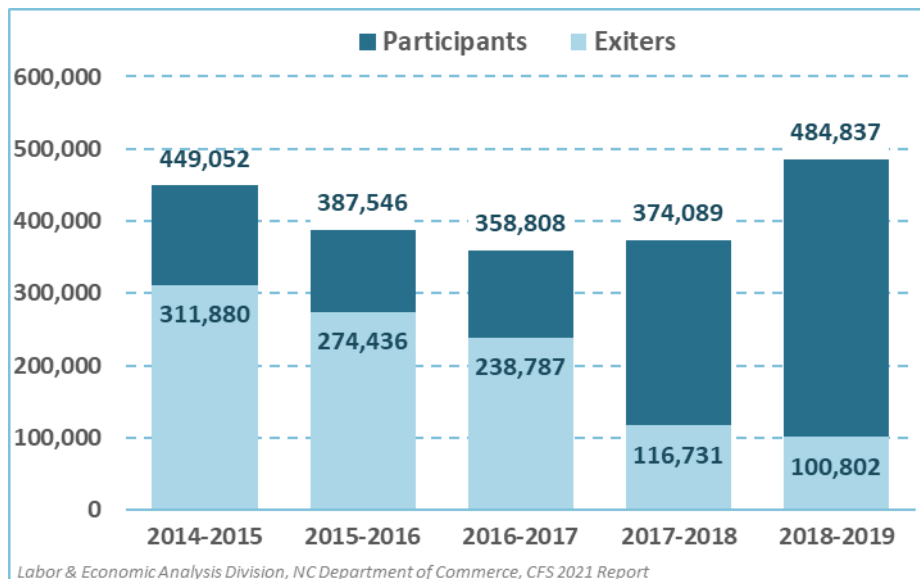
The Wagner-Peyser Act of 1933 established a nationwide system of public employment offices known as the Employment Service. In North Carolina, the Division of Workforce Solutions provides oversight and operational responsibility for the state’s Wagner-Peyser Act program. This program provides labor exchange 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.<sup>10</sup>

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 2014-2015 and 2016-2017 program years followed by a noticeable increase through the 2018-2019 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 13. Wagner-Peyser Program Participants and Exiters by Program Year**



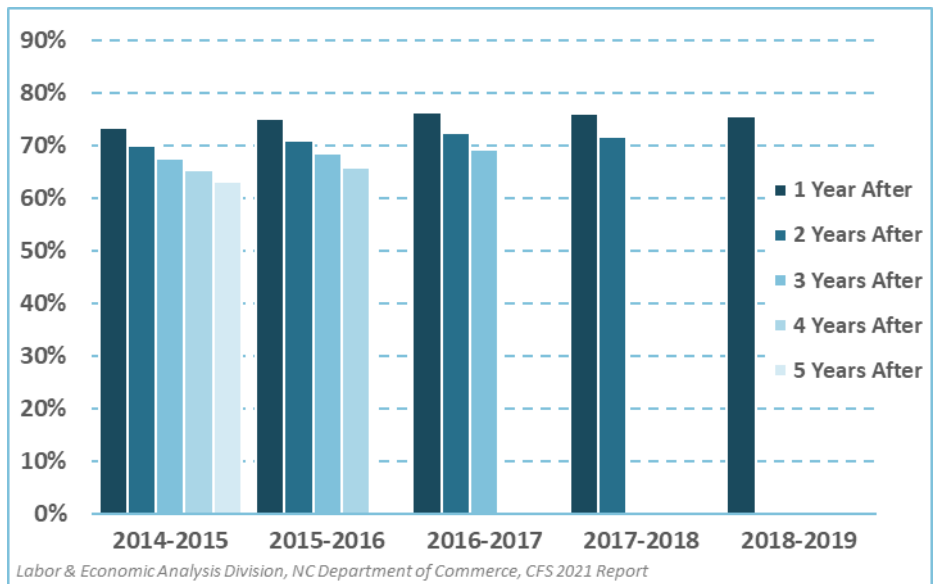
<sup>10</sup> U.S. Department of Labor Employment and Training Administration, [www.doleta.gov/wioa/](http://www.doleta.gov/wioa/)



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 were fairly stable across cohorts, ranging from a low of 73% for the 2014-2015 program year exiters to a high of 76% for the 2016-2017, 2017-2018, and 2018-2019 program year exiters (Figure 14 and Table 4). The percentage of exiters subsequently enrolling in NC public higher education one year after exiting the program also remained fairly stable at 10-12% for each of the five cohorts (Table 4). Longer term post-exit employment measures indicate that each exiting cohort had decreasing percentages of employment in North Carolina over time, which is common to almost all workforce and education programs.

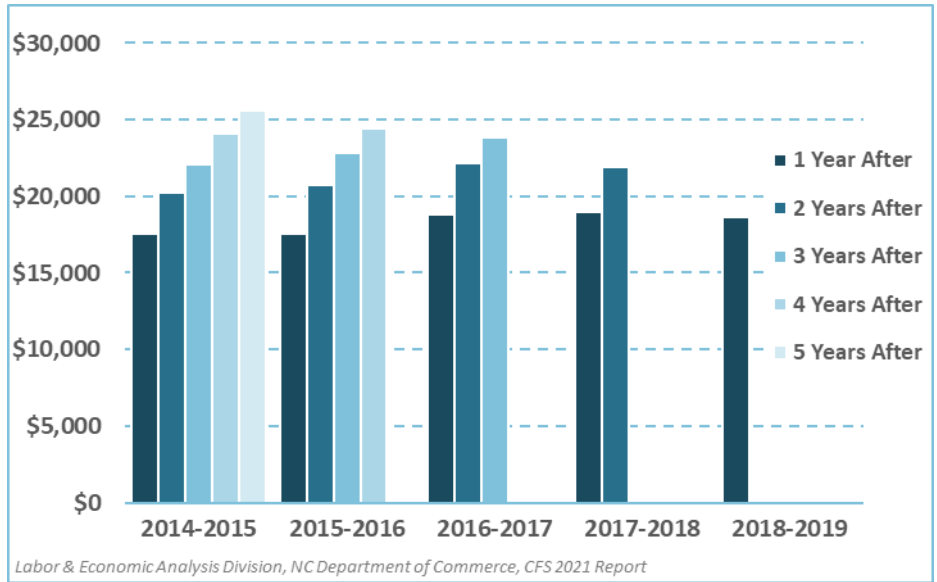
**Figure 14. Percentage of Wagner-Peyser Exiters Employed in North Carolina After Exit, by Year of Exit**



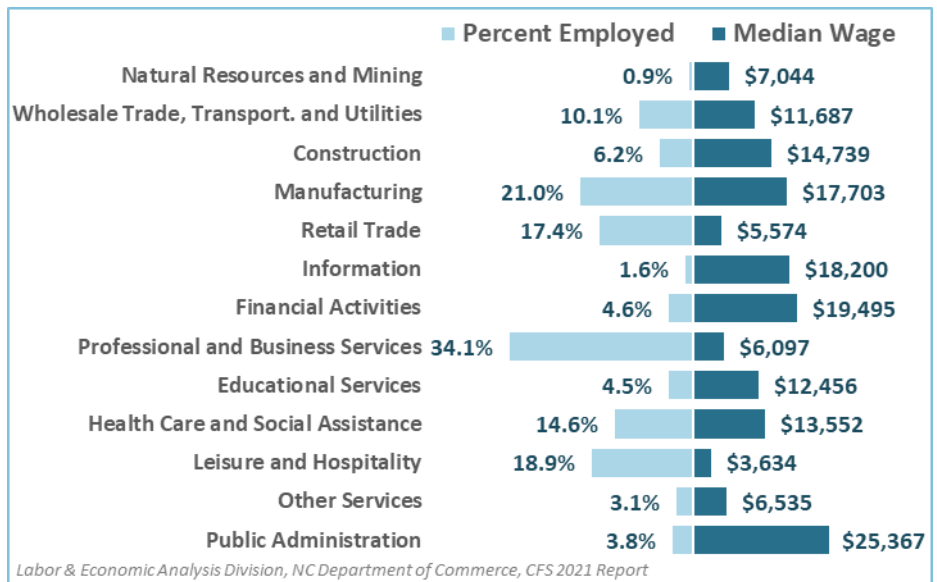
One-year post-exit median wages peaked for the 2017-2018 cohort at \$19,001, then decreased to \$18,628 for exiters from the 2018-2019 program year (Figure 15 and Table 4). Within all cohorts, median annual wages increased over time. For example, the 2014-2015 cohort experienced wage growth from \$17,539 to \$22,077 and to \$25,592 at one, three, and five post-exit years, respectively.

As shown in Figure 16, one-year employment outcomes by industry indicate that 34% of 2018-2019 Wagner-Peyser program exiters were employed in the Professional and Business Services industry, earning a median annual wage of \$6,097. Other top employing industries include Manufacturing (21%), Leisure and Hospitality (19%), Retail Trade (17%), Health Care and Social Assistance (15%), and Wholesale Trade, Transportation, and Utilities (10%). Of these industries, Manufacturing accounted for the highest median annual wage (\$17,703).

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



**Figure 16. 2018-2019 Wagner-Peyser Exiters One Year Post-Exit: Employment and Median Wage by Industry**



Overall, one-year post-exit employment rates and median wages remained fairly stable for Wagner-Peyser participants. When individual cohorts are followed over time, employment rates tend to decline, while median wages rise. The median wage of Wagner-Peyser participants exiting in the 2014-2015 program year was \$17,539 one year after exit and \$25,592 after five years. By contrast, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>11</sup>

<sup>11</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Table 4. Wagner-Peyser 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, 2021 Report										
Wagner-Peyser Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		449,052	387,546	358,808	374,089	484,837	449,052	387,546	358,808	374,089	449,052	387,546	358,808	449,052	387,546	449,052
Exitters		311,880	274,436	238,787	116,731	100,802	311,880	274,436	238,787	116,731	311,880	274,436	238,787	311,880	274,436	311,880
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exitters Employed In North Carolina	N %	228,879 73%	206,179 75%	182,626 76%	88,859 76%	76,367 76%	218,526 70%	195,087 71%	173,121 73%	83,679 72%	210,570 68%	188,230 69%	165,504 69%	204,016 65%	180,950 66%	196,729 63%
Exitters' Wages in North Carolina	Mean Median	\$21,162 \$17,539	\$21,651 \$17,580	\$23,158 \$18,776	\$23,396 \$19,001	\$22,552 \$18,628	\$24,112 \$20,268	\$24,763 \$20,697	\$26,805 \$22,153	\$26,896 \$21,935	\$25,865 \$22,077	\$26,969 \$22,841	\$28,811 \$23,867	\$27,947 \$24,076	\$28,744 \$24,465	\$29,507 \$25,592
Exitters Enrolled in NC Public Higher Education	N %	38,675 12%	33,096 12%	26,284 11%	11,979 10%	9,685 10%	33,739 11%	28,496 10%	23,125 10%	10,560 9%	29,235 9%	24,999 9%	19,979 8%	25,747 8%	21,274 8%	21,995 7%
Exitters Enrolled in NC Public Education, Employment, or Training Program	N %	48,242 15%	41,751 15%	33,066 14%	15,373 13%	12,643 13%	74,924 24%	67,508 25%	58,961 25%	27,438 24%	68,732 22%	70,506 26%	64,455 22%	71,133 23%	74,524 27%	75,758 24%
Exitters Enrolled or Employed in NC	N %	239,341 77%	214,692 78%	188,927 79%	91,728 79%	78,767 78%	230,719 74%	205,826 75%	181,914 76%	87,710 75%	221,667 71%	199,891 73%	175,990 74%	216,038 69%	194,609 71%	210,596 68%
<b>Exitters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%	0.9%	0.9%	0.8%	0.7%	0.8%	0.8%	0.8%
Wholesale Trade, Transport. and Utilities		8.9%	9.4%	9.6%	9.5%	10.1%	9.7%	9.9%	9.9%	10.5%	10.0%	10.2%	10.6%	10.2%	10.8%	10.8%
Construction		7.0%	6.9%	6.4%	6.7%	6.2%	7.1%	7.0%	6.4%	6.5%	7.2%	7.1%	6.3%	7.2%	6.9%	7.0%
Manufacturing		16.1%	15.6%	17.8%	18.5%	21.0%	17.3%	16.9%	19.2%	19.6%	17.8%	17.8%	19.4%	18.5%	17.9%	18.4%
Retail Trade		18.8%	19.1%	18.0%	17.8%	17.4%	17.4%	17.5%	16.6%	16.8%	16.5%	16.6%	16.2%	15.8%	16.2%	15.4%
Information		1.4%	1.5%	1.6%	1.9%	1.6%	1.4%	1.5%	1.7%	1.9%	1.4%	1.6%	1.7%	1.5%	1.6%	1.5%
Financial Activities		4.7%	4.8%	4.9%	5.0%	4.6%	5.1%	5.1%	5.3%	5.5%	5.2%	5.3%	5.6%	5.3%	5.6%	5.6%
Professional and Business Services		33.2%	34.4%	34.1%	36.1%	34.1%	28.7%	29.4%	29.7%	30.0%	27.6%	28.6%	27.6%	26.9%	26.4%	25.0%
Educational Services		5.2%	5.3%	5.5%	4.7%	4.5%	5.5%	5.6%	5.4%	4.8%	5.8%	5.5%	5.4%	5.6%	5.6%	5.7%
Health Care and Social Assistance		14.6%	15.2%	14.9%	14.1%	14.6%	15.3%	15.7%	15.3%	14.7%	15.7%	16.1%	15.7%	16.0%	16.5%	16.3%
Leisure and Hospitality		18.2%	18.8%	18.5%	18.9%	18.9%	17.0%	17.3%	16.7%	17.1%	16.3%	16.4%	15.7%	15.5%	15.6%	14.7%
Other Services		3.1%	3.2%	3.1%	3.1%	3.1%	3.2%	3.2%	3.2%	3.0%	3.2%	3.2%	3.1%	3.2%	3.3%	3.1%
Public Administration		4.2%	4.2%	4.1%	4.0%	3.8%	4.6%	4.4%	4.4%	4.3%	4.7%	4.7%	4.6%	5.0%	4.9%	5.2%
<b>Exitters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$5,366	\$5,254	\$6,624	\$8,447	\$7,044	\$6,352	\$6,904	\$8,467	\$9,850	\$8,102	\$8,606	\$12,210	\$10,133	\$10,328	\$12,437
Wholesale Trade, Transport. and Utilities		\$13,690	\$12,049	\$12,858	\$12,655	\$11,687	\$16,348	\$16,298	\$17,022	\$16,034	\$17,998	\$18,297	\$18,268	\$19,973	\$19,266	\$20,696
Construction		\$14,726	\$14,599	\$14,095	\$14,355	\$14,739	\$17,752	\$18,255	\$18,322	\$19,195	\$19,646	\$20,213	\$20,609	\$22,548	\$23,397	\$25,563
Manufacturing		\$19,865	\$17,881	\$19,687	\$17,655	\$17,703	\$22,128	\$21,702	\$23,469	\$20,959	\$23,563	\$23,560	\$24,854	\$25,192	\$25,122	\$26,427
Retail Trade		\$6,393	\$6,164	\$6,004	\$5,912	\$5,574	\$8,068	\$7,564	\$7,794	\$7,219	\$8,374	\$8,200	\$8,286	\$9,128	\$8,873	\$9,687
Information		\$14,189	\$12,954	\$15,171	\$20,566	\$18,200	\$18,263	\$17,469	\$22,152	\$27,076	\$20,328	\$20,189	\$24,972	\$21,164	\$23,347	\$25,157
Financial Activities		\$17,335	\$17,156	\$18,965	\$19,626	\$19,495	\$23,023	\$23,774	\$24,531	\$27,327	\$26,026	\$26,088	\$28,139	\$27,808	\$27,958	\$29,462
Professional and Business Services		\$6,558	\$6,461	\$6,690	\$6,555	\$6,097	\$6,821	\$7,140	\$7,349	\$7,340	\$7,070	\$7,313	\$7,773	\$7,500	\$8,034	\$8,041
Educational Services		\$12,067	\$11,998	\$13,009	\$12,035	\$12,456	\$15,349	\$16,207	\$16,582	\$16,567	\$17,867	\$18,132	\$19,716	\$19,635	\$20,328	\$21,596
Health Care and Social Assistance		\$13,609	\$13,785	\$13,684	\$13,588	\$13,552	\$15,947	\$16,093	\$16,632	\$16,263	\$17,115	\$17,862	\$18,269	\$19,010	\$19,177	\$20,424
Leisure and Hospitality		\$4,392	\$4,083	\$4,108	\$3,869	\$3,634	\$4,949	\$4,636	\$4,836	\$4,408	\$5,037	\$4,833	\$5,070	\$5,207	\$5,107	\$5,508
Other Services		\$6,132	\$5,813	\$6,322	\$6,072	\$6,535	\$7,462	\$7,950	\$8,143	\$8,429	\$8,236	\$8,671	\$9,751	\$9,296	\$9,994	\$10,779
Public Administration		\$24,838	\$24,099	\$24,390	\$25,287	\$25,367	\$28,774	\$29,169	\$29,491	\$30,242	\$30,617	\$31,402	\$31,922	\$32,316	\$33,264	\$34,404
<b>Exitters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$11,384	\$11,654	\$14,037	\$14,067	\$13,698	\$13,190	\$13,649	\$16,460	\$16,613	\$14,984	\$15,901	\$22,677	\$17,090	\$18,061	\$19,347
Wholesale Trade, Transport. and Utilities		\$19,100	\$18,442	\$19,956	\$19,697	\$18,236	\$21,834	\$22,256	\$24,002	\$23,002	\$23,550	\$24,373	\$25,622	\$25,503	\$25,422	\$26,370
Construction		\$19,219	\$19,814	\$19,703	\$20,303	\$20,079	\$22,233	\$22,875	\$23,533	\$24,328	\$24,079	\$25,119	\$25,637	\$26,670	\$27,622	\$29,006
Manufacturing		\$22,013	\$21,103	\$22,394	\$21,414	\$20,875	\$24,158	\$24,299	\$26,179	\$24,319	\$25,634	\$26,279	\$27,604	\$27,442	\$27,711	\$28,849
Retail Trade		\$10,470	\$10,443	\$10,640	\$10,689	\$10,442	\$12,576	\$12,349	\$12,917	\$12,687	\$13,318	\$13,533	\$14,034	\$14,512	\$14,440	\$15,397
Information		\$22,056	\$21,948	\$24,923	\$28,877	\$24,799	\$26,700	\$27,008	\$32,281	\$36,257	\$28,228	\$29,387	\$36,073	\$30,342	\$33,628	\$32,999
Financial Activities		\$22,127	\$22,350	\$25,257	\$26,239	\$26,059	\$27,071	\$27,759	\$31,118	\$33,923	\$30,169	\$30,666	\$35,465	\$32,469	\$33,371	\$34,912
Professional and Business Services		\$12,845	\$13,312	\$14,273	\$14,369	\$13,368	\$14,265	\$15,105	\$16,501	\$17,212	\$14,838	\$15,978	\$18,112	\$15,857	\$17,632	\$17,330
Educational Services		\$16,764	\$16,788	\$17,941	\$17,263	\$16,880	\$19,335	\$20,087	\$20,961	\$20,424	\$21,142	\$21,671	\$23,079	\$22,780	\$23,420	\$24,390
Health Care and Social Assistance		\$16,994	\$17,286	\$17,254	\$17,532	\$17,343	\$19,357	\$19,419	\$20,101	\$20,037	\$20,341	\$21,102	\$21,623	\$22,156	\$22,488	\$23,536
Leisure and Hospitality		\$7,582	\$7,281	\$7,537	\$7,302	\$6,952	\$8,487	\$8,321	\$8,766	\$8,276	\$8,999	\$8,947	\$9,167	\$9,551	\$9,371	\$9,901
Other Services		\$11,460	\$11,616	\$12,509	\$12,059	\$12,602	\$13,336	\$14,129	\$14,971	\$15,330	\$14,516	\$15,336	\$16,887	\$15,951	\$16,742	\$17,761
Public Administration		\$23,638	\$23,308	\$23,577	\$24,167	\$24,141	\$26,491	\$27,034	\$27,344	\$28,017	\$28,539	\$29,047	\$29,880	\$30,333	\$31,184	\$32,498

\* 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 Division of Workforce Solutions (DWS) offers a broad spectrum of services to several customer groups, and programs described in this section provide different types of services to different customers. Although there is some overlap of services or customer groups 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 peaked at over 100,000 participants in the 2014-2015 and 2015-2016 program years and has since declined to around 10,000 participants per program year. Likewise, the WIA/WIOA Dislocated Worker program saw a large spike in participation in 2014-2015, and then dropped to much lower levels the following year. These sharp changes in program participation likely reflect transition from WIA to WIOA programs including efforts to integrate service delivery and leverage resources across the multiple programs that a given customer may be eligible for, as well as changes in how DWS measures “participation” for WIOA reporting purposes.

Changes in program participation occurred alongside shifts in the outcomes of program exiters, particularly for the WIA/WIOA Adult program. This program saw a sudden decline in the share of exiters subsequently enrolling in public higher education in their post-2015 cohorts. The shift in outcomes was also apparent in these exiters’ industry of employment; while earlier cohorts were concentrated in Manufacturing and lower-paying Professional and Business Services jobs (a sector which includes temporary help agencies), post-2013 cohorts were more likely to be employed in the Health Care and Social Assistance sector.

More research is needed to determine whether these shifts in outcomes reflect changes in the nature of services provided, a different composition of program participants after service integration, changes in reporting, or changes in the overall economy of North Carolina. 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 Manufacturing sector also suggests that an examination of the alignment between workforce programs and the needs of the labor market may be merited particularly since Manufacturing provides higher wages to program exiters than some other industries

The WIA/WIOA Youth and Adult programs exhibited outcome trends that were consistent with a tightening labor market in 2015-2019. These programs saw continuous increases in wage earnings, increasing rates of employment in the state, and declining rates of enrollment in public higher education between the 2014-2015 and 2018-2019 cohorts, which may be due in part to the gradual expansion of employment opportunities for young, unemployed, and underemployed workers and those with other barriers to employment.

Further study of the services received by and the outcomes of WIA/WIOA Adult and WIA/WIOA Dislocated Worker participants, as well as other DWS customer groups that are underemployed or unemployed, may be beneficial. The current economic shock brought by the COVID-19 pandemic is rearranging North Carolina’s labor market. Maintaining and analyzing up to date data on program participation and industry employment needs will be critical to support recovery for North Carolina residents and businesses.

# The Department of Health and Human Services

## Division of Social Services

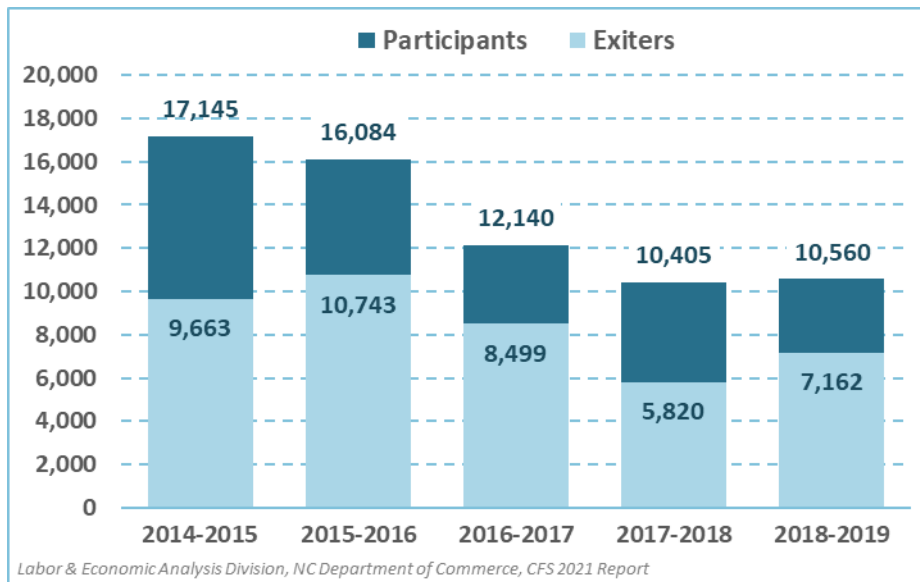
### » Work First Program Overview

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.<sup>12</sup> 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.<sup>13</sup> With the implementation of WIOA, Work First became a required partner in the One-Stop career centers.

### » Work First Program Outcomes

The number of individuals participating in or exiting Work First trended downward between the 2014-2015 and 2017-2018 program years before a slight increase in the 2018-2019 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**



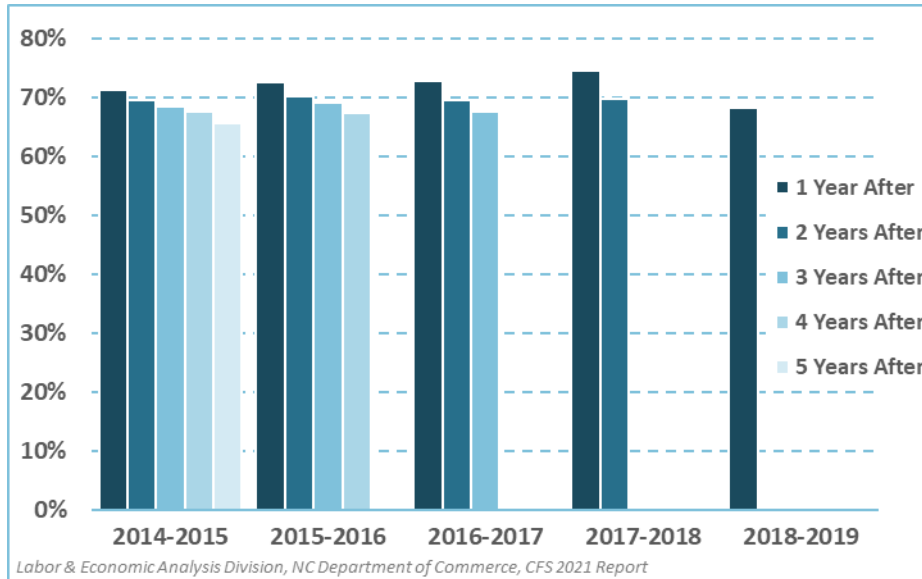
Figures 18 and 19 show employment and wage outcomes for Work First program participants by year of exit (also see Table 5). One-year post-exit employment rates increased progressively for the first four program

<sup>12</sup> North Carolina Division of Social Services, <http://www.ncdhhs.gov/dss/workfirst/index.htm>

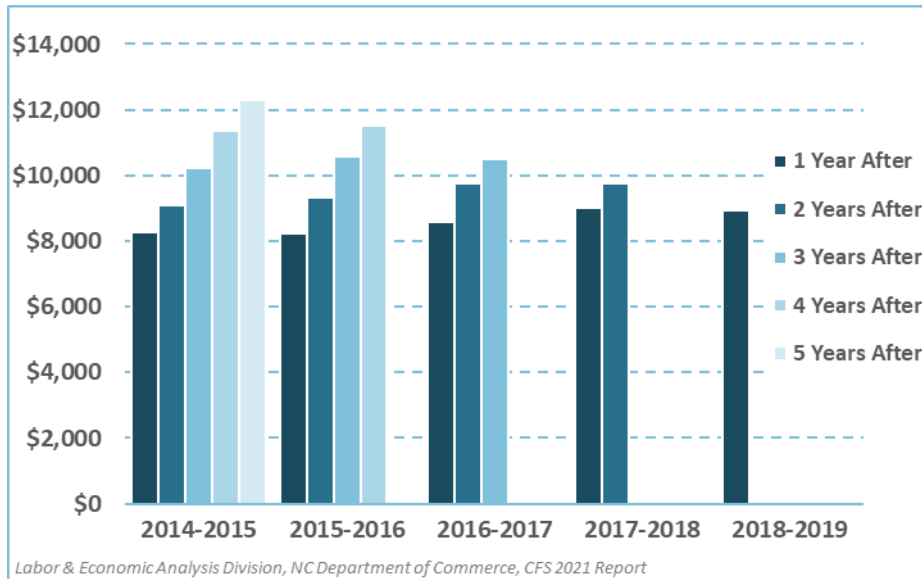
<sup>13</sup> Ibid.

years, from 71% for the 2014-2015 program year exiters to 74% for the 2017-2018 program year exiters before dropping to 68% for 2018-2019 program year exiters. One-year post-exit median wages basically increased over the program years from \$8,289 in the 2014-2015 program year exiters to \$8,948 in 2018-2019 with a slight dip in 2015-2016 to \$8,228 and a slight rise in 2017-2018 to \$9,012.

**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**

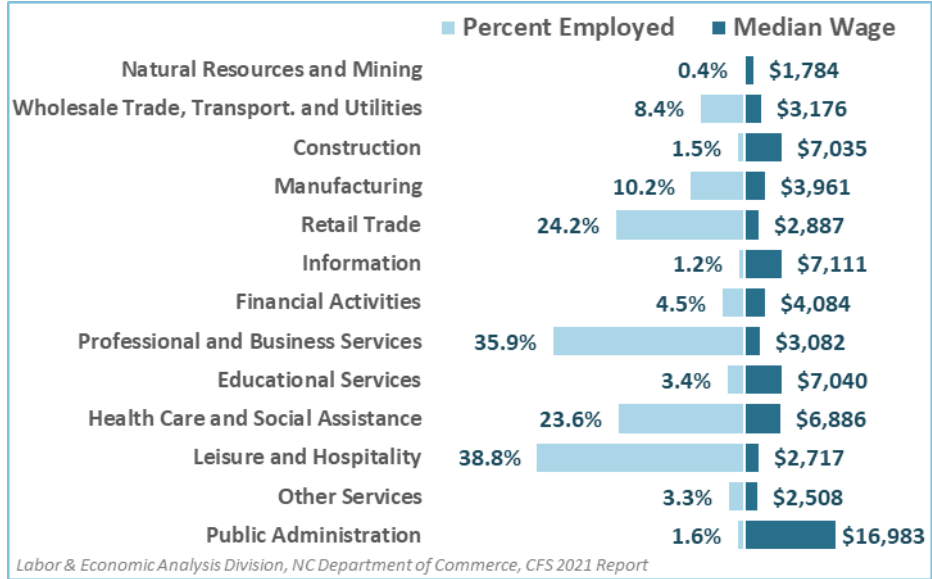


Within cohorts, employment rates decreased while median wages increased over time, a phenomenon common to almost all workforce programs. For example, the employment rates of the 2014-2015 cohort dropped from 71% one year after exit to 66% five years after exit, while their median annual wages increased from \$8,289 one year after exit to \$12,295 in year five.

Work First program exiters earned low wages across all industries. Figure 20 and Table 5 show that 39% of 2018-2019 exiters were employed in Leisure and Hospitality, followed by Professional and Business Services

(36%), Retail Trade (24%), Health Care and Social Assistance (24%), and Manufacturing (10%). Of these industries, Health Care and Social Assistance paid the highest median annual wage (\$6,886).

**Figure 20. 2018-2019 Work First Program Exiters One Year After Exit: Percentage Employed and Median Wage by Industry**



### » Summary and Recommendations

Overall, the findings reported above are consistent with a growing economy and tightening labor market through the 2017-2018 program year. The data show a decrease in the number of Work First participants through the 2017-2018 program year followed by an increase, and a corresponding increase in short-term employment rates and median wages for program exiters across cohorts. However, each of these data trends exhibited slight reverse in the 2018-2019 program year.

A stated goal of the Work First program is to assist individuals in becoming economically self-sufficient. We find that Work First program exiters experience low employment and wage outcomes, with wages below established federal poverty guidelines and employment rates well below the statewide average. More research is needed to establish the impact of the Work First program on participants, who might have barriers to employment that precede their time in the program.

**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, 2021 Report										
Work First - Employment and Training Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		17,145	16,084	12,140	10,405	10,560	17,145	16,084	12,140	10,405	17,145	16,084	12,140	17,145	16,084	17,145
Exiters		9,663	10,743	8,499	5,820	7,162	9,663	10,743	8,499	5,820	9,663	10,743	8,499	9,663	10,743	9,663
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exiters Employed In North Carolina	N	6,876	7,803	6,175	4,333	4,878	6,721	7,538	5,913	4,060	6,619	7,413	5,732	6,522	7,222	6,334
	%	71%	73%	73%	74%	68%	70%	70%	70%	68%	69%	67%	67%	67%	67%	66%
Exiters' Wages in North Carolina	Mean	\$10,166	\$10,326	\$10,924	\$11,409	\$11,789	\$11,516	\$11,749	\$12,548	\$12,937	\$12,798	\$13,203	\$13,923	\$14,162	\$14,541	\$15,502
	Median	\$8,289	\$8,228	\$8,569	\$9,012	\$8,948	\$9,089	\$9,314	\$9,746	\$9,766	\$10,236	\$10,571	\$10,510	\$11,353	\$11,531	\$12,295
Exiters Enrolled in NC Public Higher Education	N	1,609	1,706	1,168	803	941	1,368	1,418	1,029	691	1,234	1,301	894	1,083	1,171	921
	%	17%	16%	14%	14%	13%	14%	13%	12%	13%	13%	11%	11%	11%	10%	
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	3,689	3,930	3,447	3,241	4,127	3,527	3,907	3,681	3,273	3,344	4,094	3,799	3,452	4,278	3,584
	%	38%	37%	41%	56%	58%	37%	36%	43%	56%	35%	38%	45%	36%	40%	37%
Exiters Enrolled or Employed in NC	N	7,547	8,446	6,738	4,900	5,781	7,250	8,131	6,534	4,745	7,084	8,040	6,452	7,014	7,936	6,939
	%	78%	79%	79%	84%	81%	75%	76%	77%	82%	73%	75%	76%	73%	74%	72%
<b>Exiters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.3%	0.5%	0.4%	0.3%	0.4%	0.4%	0.4%	0.2%	0.3%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%
Wholesale Trade, Transport. and Utilities		4.8%	5.1%	5.7%	6.8%	8.4%	5.6%	5.6%	6.4%	7.4%	6.2%	6.2%	7.6%	6.5%	7.9%	8.3%
Construction		1.4%	1.4%	1.4%	1.2%	1.5%	1.6%	1.3%	1.8%	1.4%	1.6%	1.5%	1.8%	1.9%	1.7%	2.0%
Manufacturing		8.4%	9.2%	10.4%	11.7%	10.2%	10.8%	10.5%	11.6%	12.6%	11.7%	11.7%	12.2%	12.2%	12.0%	11.9%
Retail Trade		23.9%	25.6%	23.6%	23.6%	24.2%	23.2%	23.2%	22.6%	23.4%	23.3%	21.8%	22.4%	22.6%	23.1%	21.9%
Information		1.0%	0.8%	1.1%	1.1%	1.2%	1.0%	1.0%	1.2%	1.3%	1.3%	1.2%	1.4%	1.4%	1.2%	1.6%
Financial Activities		3.5%	3.7%	3.6%	3.9%	4.5%	3.8%	4.2%	4.0%	5.0%	4.0%	4.6%	5.0%	4.3%	4.9%	5.0%
Professional and Business Services		38.4%	36.3%	37.8%	40.9%	35.9%	37.0%	35.1%	36.7%	36.5%	35.9%	35.4%	34.4%	35.1%	33.6%	32.2%
Educational Services		2.8%	3.4%	3.6%	3.1%	3.4%	3.3%	3.4%	3.3%	3.0%	3.4%	3.5%	3.3%	3.5%	3.7%	3.7%
Health Care and Social Assistance		19.4%	20.6%	21.5%	22.1%	23.6%	21.3%	22.4%	22.4%	23.8%	22.4%	23.6%	24.2%	23.1%	24.6%	23.7%
Leisure and Hospitality		38.2%	38.8%	38.9%	39.0%	38.8%	37.3%	36.9%	37.4%	35.9%	36.1%	35.1%	34.6%	34.4%	33.3%	32.7%
Other Services		2.7%	2.9%	3.5%	3.0%	3.3%	2.9%	2.9%	3.4%	3.0%	2.7%	2.9%	3.3%	2.5%	3.0%	2.6%
Public Administration		1.2%	1.7%	1.5%	1.5%	1.6%	1.3%	1.9%	1.8%	1.6%	1.5%	1.9%	2.1%	1.5%	2.4%	1.8%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$1,151	\$2,068	\$1,074	\$1,831	\$1,784	\$1,901	\$1,612	\$1,467	\$979	\$2,579	\$1,436	\$5,099	\$7,148	\$1,060	\$8,711
Wholesale Trade, Transport. and Utilities		\$2,700	\$2,861	\$2,609	\$2,504	\$3,176	\$1,955	\$2,800	\$3,061	\$4,045	\$2,918	\$4,136	\$3,314	\$3,540	\$4,362	\$4,865
Construction		\$6,904	\$5,016	\$5,158	\$5,987	\$7,035	\$6,713	\$7,977	\$6,250	\$7,348	\$6,366	\$8,337	\$8,202	\$4,949	\$6,943	\$7,314
Manufacturing		\$4,717	\$4,533	\$5,117	\$4,707	\$3,961	\$4,645	\$5,073	\$4,687	\$4,469	\$6,208	\$6,132	\$4,926	\$6,914	\$6,533	\$10,100
Retail Trade		\$3,191	\$3,086	\$2,506	\$2,598	\$2,887	\$3,349	\$3,217	\$2,861	\$2,742	\$3,349	\$3,129	\$3,068	\$3,259	\$3,101	\$3,686
Information		\$6,116	\$5,806	\$7,903	\$7,415	\$7,111	\$16,240	\$6,387	\$6,484	\$7,253	\$7,880	\$8,455	\$7,180	\$13,143	\$8,203	\$15,949
Financial Activities		\$8,282	\$5,465	\$3,503	\$3,875	\$4,084	\$5,248	\$5,530	\$4,535	\$5,070	\$7,761	\$6,128	\$4,228	\$6,623	\$6,002	\$7,493
Professional and Business Services		\$2,845	\$2,510	\$2,731	\$2,729	\$3,082	\$2,636	\$2,743	\$2,776	\$2,825	\$2,875	\$2,841	\$2,903	\$2,939	\$2,854	\$3,320
Educational Services		\$7,838	\$5,570	\$6,929	\$6,399	\$7,040	\$8,205	\$8,594	\$10,432	\$8,517	\$10,916	\$9,179	\$11,802	\$12,641	\$11,104	\$12,512
Health Care and Social Assistance		\$6,489	\$7,135	\$6,614	\$7,238	\$6,886	\$7,365	\$7,433	\$7,805	\$7,339	\$8,503	\$8,758	\$8,297	\$9,588	\$9,515	\$10,153
Leisure and Hospitality		\$2,953	\$3,209	\$2,791	\$2,954	\$2,717	\$3,077	\$3,079	\$2,802	\$2,878	\$2,806	\$3,260	\$3,005	\$3,421	\$3,358	\$3,554
Other Services		\$3,452	\$3,070	\$2,611	\$3,266	\$2,508	\$3,610	\$2,949	\$2,851	\$4,003	\$3,226	\$3,096	\$4,052	\$3,551	\$4,314	\$4,767
Public Administration		\$12,386	\$9,989	\$17,244	\$17,911	\$16,983	\$20,316	\$17,146	\$19,877	\$18,611	\$16,175	\$21,397	\$19,970	\$23,792	\$24,336	\$20,806
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$6,540	\$3,700	\$4,347	\$5,689	\$4,264	\$5,732	\$4,704	\$7,573	\$6,187	\$7,964	\$3,997	\$8,550	\$11,409	\$3,800	\$13,684
Wholesale Trade, Transport. and Utilities		\$6,250	\$6,958	\$6,762	\$7,247	\$7,517	\$6,879	\$7,922	\$7,961	\$9,004	\$8,446	\$9,514	\$8,643	\$9,824	\$9,795	\$11,122
Construction		\$10,900	\$9,780	\$10,436	\$12,362	\$12,228	\$12,406	\$12,675	\$10,979	\$15,853	\$11,762	\$14,102	\$13,216	\$11,962	\$14,675	\$14,679
Manufacturing		\$8,415	\$7,814	\$8,926	\$8,319	\$8,449	\$8,986	\$9,018	\$9,813	\$9,869	\$10,981	\$10,229	\$10,973	\$12,827	\$11,628	\$14,557
Retail Trade		\$5,682	\$5,387	\$5,067	\$5,303	\$5,474	\$6,278	\$6,200	\$6,118	\$6,027	\$6,543	\$6,630	\$6,336	\$7,121	\$6,940	\$7,595
Information		\$14,273	\$10,549	\$12,947	\$10,704	\$10,177	\$19,348	\$10,476	\$11,199	\$12,941	\$15,143	\$13,441	\$12,098	\$19,442	\$13,939	\$20,694
Financial Activities		\$11,808	\$11,258	\$9,383	\$10,719	\$10,647	\$12,264	\$11,770	\$12,319	\$13,063	\$14,651	\$13,355	\$12,747	\$15,528	\$14,857	\$16,122
Professional and Business Services		\$5,723	\$5,252	\$5,847	\$5,859	\$6,307	\$5,534	\$5,701	\$6,245	\$6,289	\$6,003	\$6,044	\$6,887	\$6,349	\$6,459	\$6,798
Educational Services		\$10,712	\$8,755	\$10,694	\$9,825	\$10,240	\$10,963	\$11,473	\$13,547	\$12,165	\$13,366	\$13,199	\$15,903	\$14,490	\$14,682	\$14,963
Health Care and Social Assistance		\$9,113	\$9,679	\$9,641	\$10,169	\$10,933	\$10,510	\$10,654	\$11,511	\$11,344	\$11,615	\$12,021	\$12,603	\$12,821	\$13,218	\$13,994
Leisure and Hospitality		\$4,763	\$5,026	\$4,876	\$4,905	\$4,830	\$5,228	\$5,494	\$5,224	\$5,299	\$5,445	\$5,900	\$5,590	\$5,976	\$6,110	\$6,265
Other Services		\$6,989	\$6,036	\$6,009	\$6,410	\$6,135	\$7,782	\$7,088	\$6,886	\$8,192	\$7,830	\$7,173	\$8,553	\$9,385	\$8,733	\$10,542
Public Administration		\$16,178	\$14,810	\$17,736	\$18,300	\$17,825	\$19,520	\$18,472	\$21,871	\$21,624	\$19,043	\$21,232	\$23,503	\$22,698	\$23,713	\$22,716

\* 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 affects the Vocational Rehabilitation (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.<sup>14</sup> 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.<sup>15</sup>

### » Vocational Rehabilitation Program Outcomes

As shown in Figure 21, the number of individuals exiting the Vocational Rehabilitation program fluctuated between a high of 57,292 in 2015-2016 program year to a low of 43,796 in 2017-2018.

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.

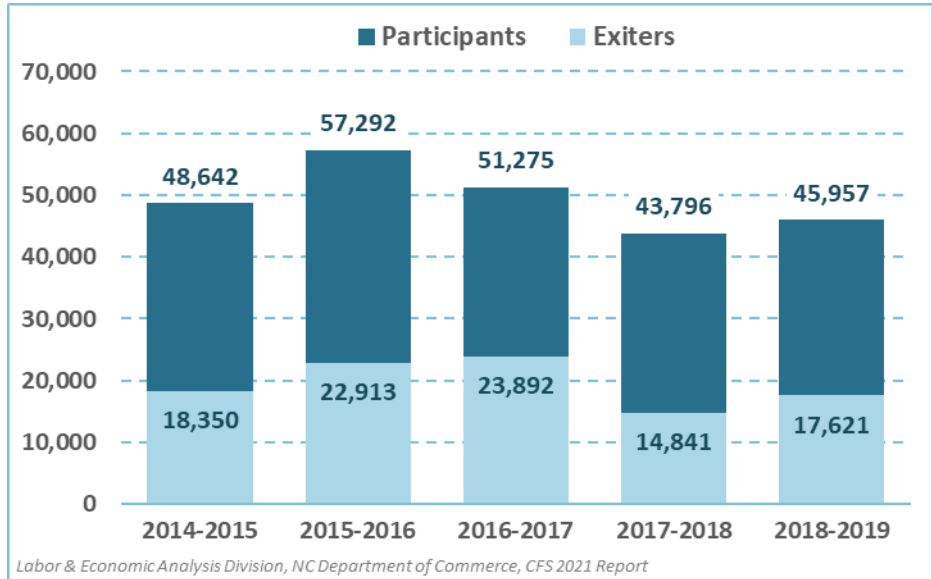
Employment (Figure 22) and wage outcomes (Figure 23) were examined separately for each cohort exiting the Vocational Rehabilitation program, for up to five years after exit (also see Table 6). One-year post-exit employment rates fluctuated across cohorts, ranging from a low of 50% for 2015-2016 program year exiters to a high of 55% for 2017-2018 program year exiters. One-year post-exit median annual wages also fluctuated, ranging from \$7,876 for 2016-2017 exiters to \$8,955 for 2018-2019 exiters.

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<sup>14</sup> North Carolina Division of Vocational Rehabilitation Services, <http://www.ncdhhs.gov/dvrs/aboutus.htm>

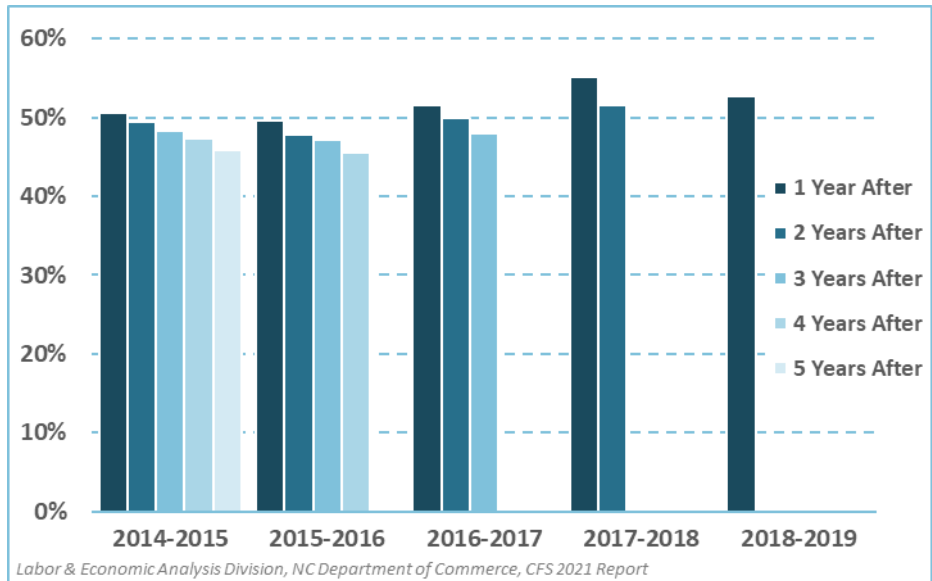
<sup>15</sup> North Carolina Division of Vocational Rehabilitation Services, Employment Services for People with Disabilities, <https://www.ncdhhs.gov/assistance/disability-services/employment-services-for-people-with-disabilities>

**Figure 21. Vocational Rehabilitation Program Participants and Exitters by Program Year**

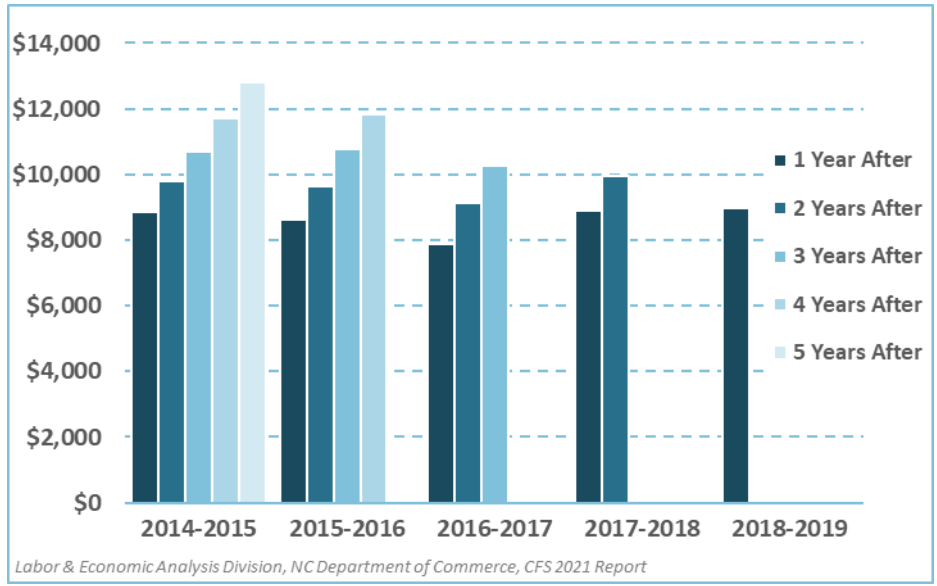


Longer term post-exit employment and wage measures indicate a slight decrease in the percentage of each exiting cohort who were employed in North Carolina over time. Wages, however, increased over time within each exiting cohort. The 2014-2015 exitters saw median annual wages increase from \$8,854 at one-year post-exit to \$10,677 and \$12,812 at three- and five-years post-exit, respectively. The 2015-2016 exitters had an increase in median wages from \$8,632 one year after exit to \$10,783 in year three.

**Figure 22. Percentage of Vocational Rehabilitation Program Exitters Employed in North Carolina After Exit, by Year of Exit**

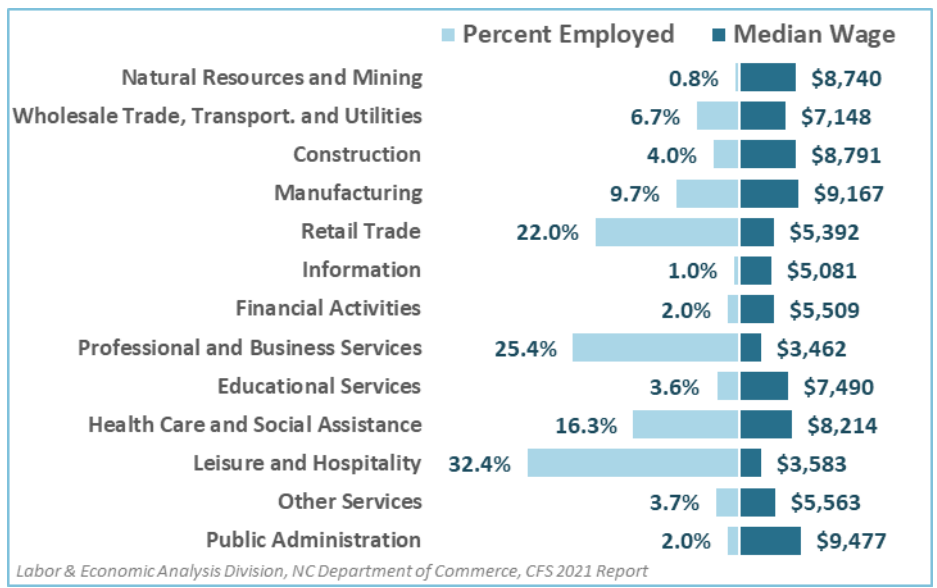


**Figure 23. Median Wage of Vocational Rehabilitation Program Exiters in North Carolina, by Year of Exit**



For one-year post-exit wage and employment outcomes by industry (Figure 24) for the 2018-2019 Vocational Rehabilitation program exiters, the top employing industries include Leisure and Hospitality (32%), Professional and Business Services (25%), Retail Trade (22%), Health Care and Social Assistance (16%), and Manufacturing (10%). Of these, Manufacturing has the highest median wage at \$9,167.

**Figure 24. 2018-2019 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 UI-covered employment including retirement, death, and inability to find employment, or leaving the labor force.

The 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>16</sup> Median wages for DVRS program exiters are shown in Table 6 and range from a low of \$7,876 for 2016-2017 program exiters one year after exit, to a high of \$12,812 for 2014-2015 exiters five years post-exit. These are well below the typical annual income in North Carolina and near or below the U.S. poverty line.

It is important to keep in mind that people 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 may 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.

A requirement of the new WIOA is the development of an Integrated Service Delivery plan that coordinates service delivery between WIOA, Wagner-Peyser, Adult Basic Education and Vocational Rehabilitation programs. It is recommended that North Carolina's plan and its implementation focuses on leveraging resources and services across programs, and achieving both higher employment and wage outcomes and acquiring increased occupational skills and educational credentials for all participants.

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<sup>16</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Table 6. Vocational Rehabilitation Program Participants and Exitters, Showing Outcomes One Through Five Years After Exit, Overall and by Industry**

Department of Health and Human Services						Common Follow-up System: Evaluative Measures, 2021 Report																				
Vocational Rehabilitation - Employment and Training Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce																				
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019					
Participants		48,642	57,292	51,275	43,796	45,957	48,642	57,292	51,275	43,796	45,957	48,642	57,292	51,275	43,796	45,957	48,642	57,292	51,275	43,796	45,957					
Exitters		18,350	22,913	23,892	14,841	17,621	18,350	22,913	23,892	14,841	17,621	18,350	22,913	23,892	14,841	17,621	18,350	22,913	23,892	14,841	17,621					
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>					<b>4 Years After</b>					<b>5 Years After</b>				
Exitters Employed in North Carolina		N %	9,292 51%	11,377 50%	12,336 52%	8,187 55%	9,299 53%	9,060 49%	10,974 48%	11,941 50%	7,662 52%	8,878 48%	10,813 47%	11,468 48%	8,678 47%	10,450 46%	8,405 46%	8,678 47%	10,450 46%	8,405 46%	8,405 46%					
Exitters' Wages in North Carolina		Mean Median	\$11,810 \$8,854	\$11,531 \$8,632	\$11,019 \$7,876	\$12,155 \$8,900	\$12,331 \$8,955	\$12,577 \$9,780	\$12,836 \$9,624	\$12,611 \$9,114	\$13,465 \$9,934	\$13,961 \$10,677	\$14,286 \$10,783	\$13,929 \$10,262	\$15,294 \$11,728	\$15,514 \$11,822	\$16,645 \$12,812	\$15,294 \$11,728	\$15,514 \$11,822	\$16,645 \$12,812	\$16,645 \$12,812					
Exitters Enrolled in NC Public Higher Education		N %	2,508 14%	2,967 13%	2,874 12%	1,709 12%	1,815 10%	2,103 11%	2,477 11%	2,480 10%	1,434 10%	1,775 10%	1,959 9%	2,029 8%	1,521 8%	1,702 7%	1,224 7%	1,521 8%	1,702 7%	1,224 7%	1,224 7%					
Exitters Enrolled in NC Public Education, Employment, or Training Program		N %	4,747 26%	5,443 24%	6,000 25%	4,083 28%	5,241 30%	4,695 26%	5,492 24%	7,621 32%	4,409 30%	4,461 24%	5,624 25%	7,349 31%	4,513 25%	5,691 25%	4,478 24%	4,513 25%	5,691 25%	4,478 24%	4,478 24%					
Exitters Enrolled or Employed in NC		N %	10,773 59%	13,106 57%	14,299 60%	9,370 63%	10,956 62%	10,566 58%	12,749 56%	14,645 61%	9,083 61%	10,328 56%	12,603 55%	14,018 59%	10,083 55%	12,285 54%	9,798 53%	10,083 55%	12,285 54%	9,798 53%	9,798 53%					
<b>Exitters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>					<b>4 Years After</b>					<b>5 Years After</b>				
Natural Resources and Mining			0.7%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%	0.7%	0.8%	0.7%	0.8%	0.7%	0.7%	0.9%	0.6%	0.7%	0.8%	0.7%	0.6%					
Wholesale Trade, Transport. and Utilities			6.0%	5.9%	6.1%	7.0%	6.7%	6.6%	6.5%	6.5%	7.6%	7.3%	6.8%	7.5%	7.9%	7.6%	8.3%	7.9%	7.6%	8.3%	8.3%					
Construction			5.1%	5.2%	4.5%	4.8%	4.0%	5.3%	5.3%	5.1%	4.9%	5.8%	5.7%	4.9%	5.7%	5.3%	5.4%	5.7%	5.3%	5.4%	5.4%					
Manufacturing			11.5%	10.2%	10.4%	11.1%	9.7%	12.4%	11.5%	11.7%	11.9%	12.7%	12.5%	12.7%	13.5%	13.0%	13.7%	13.5%	13.0%	13.7%	13.7%					
Retail Trade			22.4%	22.0%	21.7%	22.7%	22.0%	21.0%	21.0%	21.5%	22.3%	20.9%	21.1%	21.1%	20.4%	20.8%	20.1%	20.4%	20.8%	20.1%	20.1%					
Information			0.9%	0.8%	1.0%	1.1%	1.0%	1.0%	0.8%	1.1%	1.2%	1.0%	0.8%	1.0%	1.0%	0.8%	0.8%	1.0%	0.8%	0.8%	0.8%					
Financial Activities			2.1%	2.2%	2.1%	2.1%	2.0%	2.4%	2.6%	2.1%	2.2%	2.4%	2.4%	2.2%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%					
Professional and Business Services			29.0%	28.2%	29.1%	27.4%	25.4%	28.3%	27.8%	28.8%	25.5%	28.5%	28.0%	26.9%	28.8%	26.9%	27.0%	28.8%	26.9%	27.0%	27.0%					
Educational Services			3.8%	3.7%	3.8%	4.0%	3.6%	3.8%	3.9%	3.7%	4.3%	4.1%	3.9%	3.8%	3.8%	4.2%	3.9%	3.8%	4.2%	3.9%	3.9%					
Health Care and Social Assistance			15.6%	14.7%	14.6%	15.0%	16.3%	15.4%	15.3%	14.6%	15.3%	16.3%	16.2%	15.4%	16.6%	16.5%	17.3%	16.6%	16.5%	17.3%	17.3%					
Leisure and Hospitality			28.8%	30.2%	31.8%	33.0%	32.4%	28.1%	29.0%	30.9%	31.6%	27.9%	28.5%	29.5%	27.3%	27.4%	26.8%	27.3%	27.4%	26.8%	26.8%					
Other Services			3.7%	3.6%	3.6%	3.6%	3.7%	3.8%	3.4%	4.0%	3.7%	3.9%	3.8%	3.7%	4.1%	3.7%	3.8%	4.1%	3.7%	3.8%	3.8%					
Public Administration			2.0%	2.3%	2.2%	2.2%	2.0%	2.4%	2.6%	2.3%	2.4%	2.4%	2.7%	2.6%	2.4%	2.8%	2.6%	2.4%	2.8%	2.6%	2.6%					
<b>Exitters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>					<b>4 Years After</b>					<b>5 Years After</b>				
Natural Resources and Mining			\$2,073	\$5,186	\$3,004	\$6,023	\$8,740	\$2,177	\$5,318	\$3,644	\$6,073	\$2,763	\$5,944	\$8,756	\$3,151	\$5,854	\$6,554	\$2,763	\$5,944	\$8,756	\$3,151	\$5,854				
Wholesale Trade, Transport. and Utilities			\$6,790	\$5,606	\$4,504	\$6,514	\$7,148	\$6,669	\$5,746	\$6,205	\$6,893	\$6,955	\$7,504	\$6,519	\$7,488	\$8,641	\$10,265	\$6,669	\$5,746	\$6,205	\$6,893	\$7,488				
Construction			\$7,198	\$7,707	\$7,633	\$7,527	\$8,791	\$8,689	\$8,825	\$9,019	\$10,800	\$8,291	\$9,999	\$11,833	\$8,570	\$11,321	\$12,628	\$8,689	\$8,825	\$9,019	\$10,800	\$8,570				
Manufacturing			\$9,644	\$8,471	\$6,630	\$8,697	\$9,167	\$10,333	\$9,364	\$9,424	\$9,265	\$11,948	\$11,159	\$10,140	\$12,510	\$12,520	\$14,575	\$10,333	\$9,364	\$9,424	\$9,265	\$11,948				
Retail Trade			\$5,036	\$5,464	\$4,608	\$5,144	\$5,392	\$5,675	\$5,718	\$5,078	\$5,605	\$5,449	\$6,061	\$5,430	\$6,214	\$6,076	\$6,365	\$5,675	\$5,718	\$5,078	\$5,605	\$6,214				
Information			\$5,860	\$5,940	\$5,771	\$6,299	\$5,081	\$5,248	\$5,215	\$6,514	\$6,803	\$4,878	\$4,565	\$7,103	\$5,712	\$7,010	\$7,132	\$5,248	\$5,215	\$6,514	\$6,803	\$5,712				
Financial Activities			\$6,596	\$7,257	\$5,928	\$5,421	\$5,509	\$6,807	\$4,949	\$7,561	\$9,525	\$7,409	\$9,067	\$7,769	\$9,545	\$9,638	\$9,693	\$6,807	\$4,949	\$7,561	\$9,525	\$7,409				
Professional and Business Services			\$3,678	\$3,176	\$3,235	\$3,284	\$3,462	\$3,379	\$3,161	\$3,421	\$3,340	\$3,555	\$3,594	\$3,576	\$3,929	\$3,882	\$4,064	\$3,379	\$3,161	\$3,421	\$3,340	\$3,555				
Educational Services			\$6,801	\$7,639	\$6,833	\$7,776	\$7,490	\$7,579	\$8,440	\$8,470	\$8,852	\$8,484	\$8,672	\$8,980	\$9,809	\$9,092	\$11,843	\$7,579	\$8,440	\$8,470	\$8,852	\$9,809				
Health Care and Social Assistance			\$8,341	\$7,620	\$6,223	\$7,736	\$8,214	\$8,635	\$8,037	\$7,385	\$8,538	\$8,677	\$8,350	\$8,323	\$9,576	\$9,478	\$9,921	\$8,635	\$8,037	\$7,385	\$8,538	\$8,677				
Leisure and Hospitality			\$3,360	\$3,687	\$3,034	\$3,511	\$3,583	\$3,557	\$3,680	\$3,178	\$3,467	\$3,570	\$3,738	\$3,570	\$3,890	\$3,868	\$4,131	\$3,557	\$3,680	\$3,178	\$3,467	\$3,570				
Other Services			\$4,314	\$3,654	\$4,478	\$3,578	\$5,563	\$4,105	\$4,736	\$3,992	\$4,434	\$5,255	\$4,627	\$3,862	\$4,130	\$4,802	\$6,055	\$4,105	\$4,736	\$3,992	\$4,434	\$5,255				
Public Administration			\$8,516	\$8,444	\$8,442	\$9,297	\$9,477	\$10,305	\$11,047	\$10,311	\$15,694	\$11,793	\$15,963	\$13,854	\$15,780	\$18,983	\$20,144	\$10,305	\$11,047	\$10,311	\$15,694	\$11,793				
<b>Exitters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>					<b>4 Years After</b>					<b>5 Years After</b>				
Natural Resources and Mining			\$6,741	\$10,460	\$8,923	\$10,011	\$11,903	\$7,366	\$9,727	\$10,291	\$11,686	\$8,414	\$11,073	\$13,939	\$8,216	\$12,850	\$10,838	\$7,366	\$9,727	\$10,291	\$11,686	\$8,414				
Wholesale Trade, Transport. and Utilities			\$11,735	\$9,916	\$9,280	\$12,315	\$12,672	\$12,706	\$11,435	\$11,388	\$12,484	\$12,753	\$13,707	\$12,303	\$14,039	\$14,644	\$16,219	\$12,706	\$11,435	\$11,388	\$12,484	\$12,753				
Construction			\$12,074	\$12,673	\$13,025	\$13,084	\$14,724	\$13,590	\$14,731	\$13,964	\$15,445	\$13,623	\$15,608	\$17,317	\$15,249	\$17,419	\$18,528	\$13,590	\$14,731	\$13,964	\$15,445	\$13,623				
Manufacturing			\$13,301	\$12,709	\$11,787	\$12,746	\$13,405	\$14,417	\$13,881	\$13,934	\$14,078	\$16,008	\$15,462	\$15,037	\$16,912	\$16,370	\$18,126	\$14,417	\$13,881	\$13,934	\$14,078	\$16,008				
Retail Trade			\$7,464	\$7,996	\$7,428	\$7,699	\$8,370	\$8,538	\$8,686	\$8,284	\$8,581	\$8,895	\$9,321	\$8,917	\$9,625	\$10,164	\$10,321	\$8,538	\$8,686	\$8,284	\$8,581	\$8,895				
Information			\$9,213	\$11,814	\$12,137	\$8,376	\$11,054	\$9,638	\$11,745	\$13,429	\$9,508	\$11,101	\$9,853	\$13,587	\$12,079	\$13,548	\$13,116	\$9,638	\$11,745	\$13,429	\$9,508	\$11,101				
Financial Activities			\$11,563	\$12,439	\$10,770	\$10,806	\$13,022	\$13,570	\$13,256	\$13,535	\$16,288	\$14,473	\$16,064	\$15,042	\$17,399	\$17,445	\$19,917	\$13,570	\$13,256	\$13,535	\$16,288	\$14,473				
Professional and Business Services			\$6,949	\$6,498	\$6,512	\$6,624	\$7,190	\$6,856	\$6,773	\$7,076	\$7,201	\$7,255	\$7,522	\$7,756	\$7,685	\$8,268	\$8,679	\$6,856	\$6,773	\$7,076	\$7,201	\$7,255				
Educational Services			\$10,838	\$11,177	\$11,737	\$12,449	\$13,004	\$12,013	\$12,735	\$13,097	\$13,966	\$13,319	\$13,394	\$14,010	\$14,443	\$14,102	\$15,790	\$12,013	\$12,735	\$13,097	\$13,966	\$13,319				
Health Care and Social Assistance			\$11,682	\$10,754	\$9,669	\$11,469	\$11,506	\$12,150	\$11,506	\$11,060	\$12,543	\$12,354	\$12,290	\$12,460	\$13,705	\$13,455	\$14,269	\$12,150	\$11,506	\$11,060	\$12,543	\$12,354				
Leisure and Hospitality			\$5,503	\$5,719	\$5,119	\$5,704	\$5,752	\$5,860	\$6,059	\$5,612	\$5,908	\$6,146	\$6,349	\$6,023	\$6,668	\$6,524	\$7,017	\$5,860	\$6,059	\$5,612	\$5,908	\$6,146				
Other Services			\$7,324	\$7,676	\$8,135	\$7,763	\$8,637	\$8,173	\$8,992	\$8,237	\$8,572	\$9,043	\$9,526	\$9,239	\$9,002	\$10,209	\$11,008	\$8,173	\$8,992	\$8,237	\$8,572	\$9,043				
Public Administration			\$14,632	\$14,894	\$15,852	\$17,123	\$16,658	\$15,897	\$16,569	\$17,530	\$19,921	\$17,679	\$19,225	\$18,985	\$21,089	\$21,802	\$23,004	\$15,897	\$16,569	\$17,530	\$19,921	\$17,679				

## Division of Services for the Blind

### » Program Overview

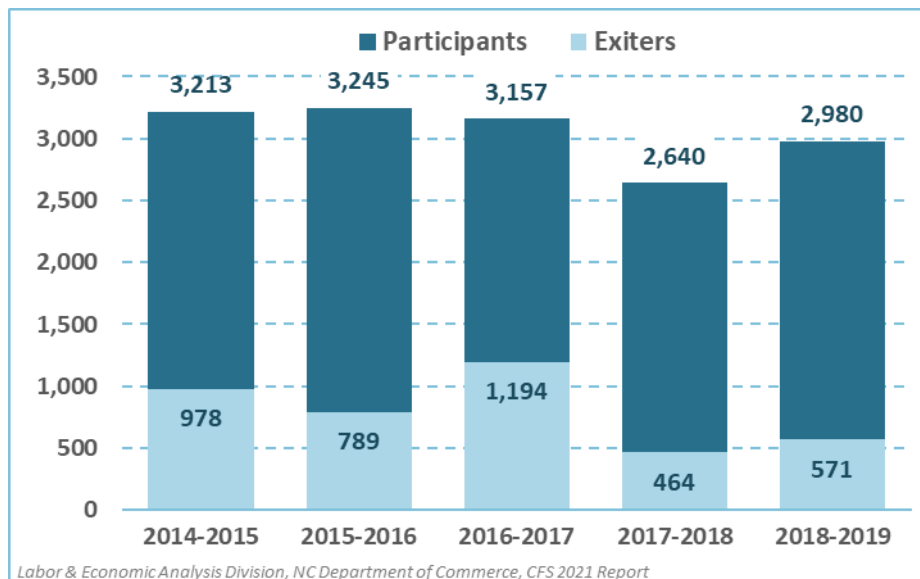
The Division of Services for the Blind (DSB) provides vocational rehabilitation services to help individuals who are blind, have low vision, or who are deaf-blind reach their goals of independence and employment.<sup>17</sup> Together with DVRS, DSB is responsible for the state vocational rehabilitation 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, return to work, and advance in employment, 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.<sup>18</sup> DSB vocational services include but are not limited to career assessments and counseling, educational and job training, job development and placement assistance and address the specialized 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, and assistive technologies. Some services are provided based on economic need, while others are provided regardless of income. Services are provided through staff located in seven district offices and the DSB Career and Training Center, and through third-party agreements with local school districts.

### » DSB Vocational Rehabilitation Program Outcomes

As shown in Figure 25, the number of individuals receiving vocational rehabilitation services through DSB fluctuated from a low of 2,640 in the 2017-2018 to a high of 3,245 in the 2015-2016 program year.

**Figure 25. DSB Vocational Rehabilitation Program Participants and Exitters by Program Year**

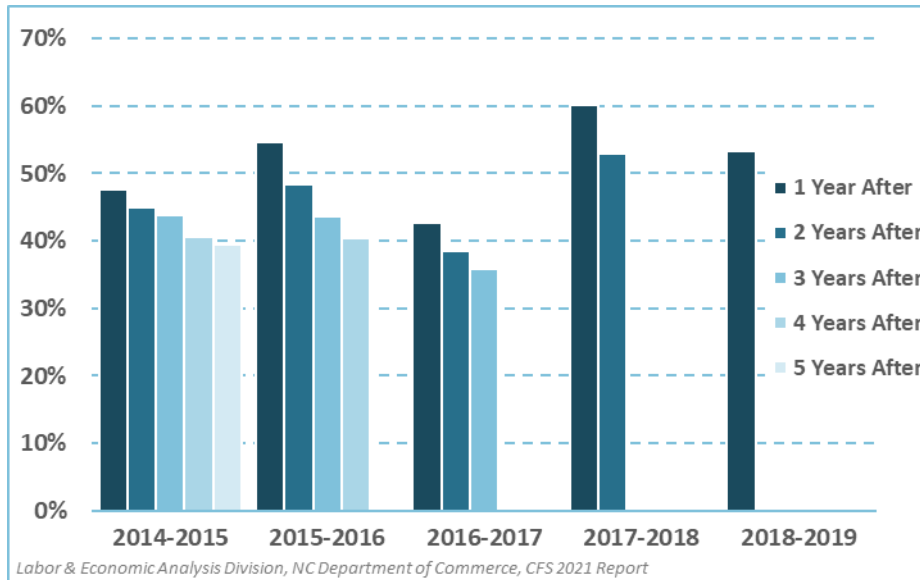


<sup>17</sup> Division of Services for the Blind, <http://www.ncdhhs.gov/dsb>

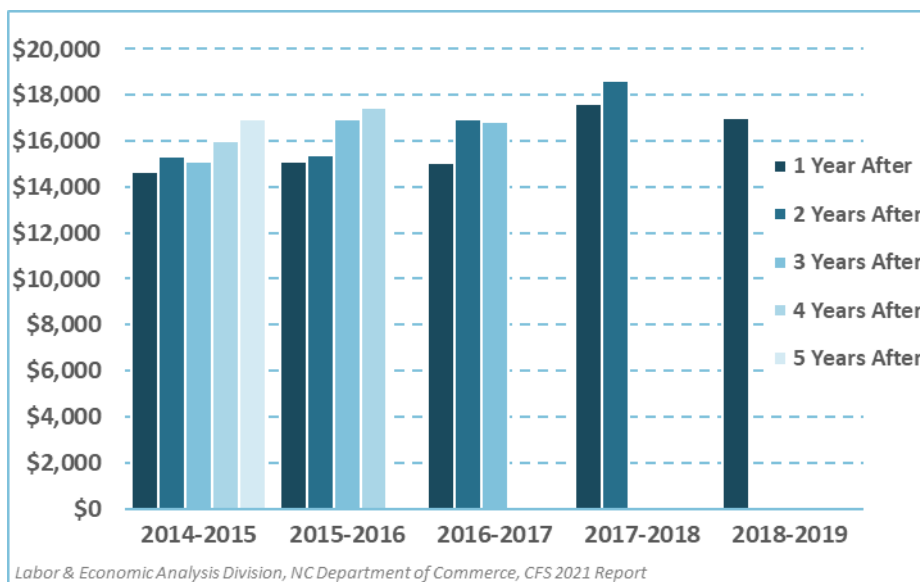
<sup>18</sup> Division of Services for the Blind, Vocational Rehabilitation for the Blind, <https://www.ncdhhs.gov/assistance/vision-loss/vocational-rehabilitation-for-blind>

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 43% for the 2016-2017 exiters to a high of 60% for the 2017-2018 exiters. One-year post-exit median wages also fluctuated over time, ranging from \$14,639 for the 2014-2015 program year exiters to a high of \$17,614 for the 2017-2018 exiters.

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



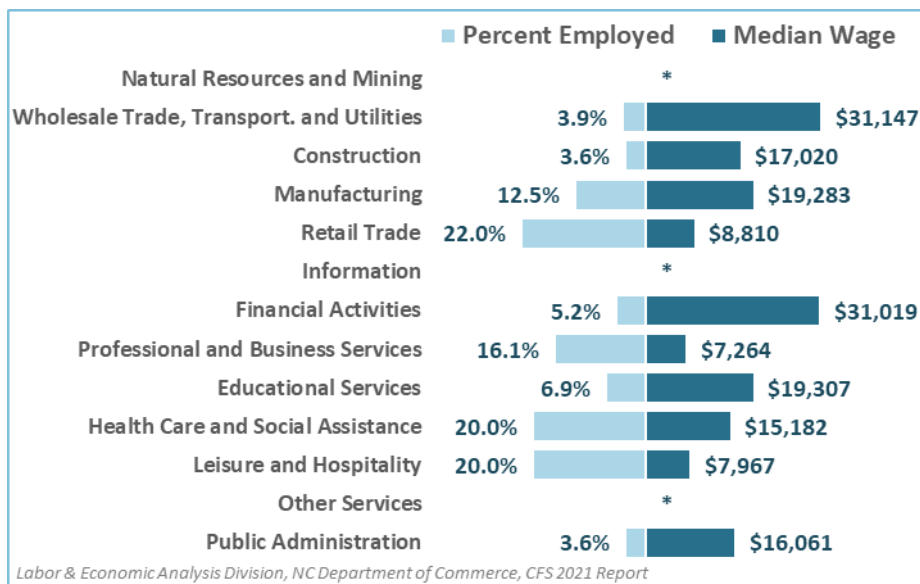
**Figure 27. Median Wage of DSB Vocational Rehabilitation Program Exiters in North Carolina, by Year of Exit**



Longer term post-exit employment and wage measures show decreasing employment rates, combined with increasing wages over time, for all cohorts, a pattern common to all workforce development programs. While decreases in post-exit employment follow a similar trend for all cohorts, there was no consistent pattern for wage increases across cohorts.

One-year post-exit wage and employment outcomes by industry (Figure 28) for the (2018-2019) cohort of Services for the Blind Vocational Rehabilitation program exiters, shows Retail Trade is the largest employing industry for exiters (22%) followed by Health Care and Social Assistance, and Leisure and Hospitality employing 20% each; then Professional and Business Services (16%) and Manufacturing (13%). Of these, Manufacturing has the highest annual median wage at \$19,283.

**Figure 28. 2018-2019 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 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 is a common trend to many other workforce training and education programs and 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 2014-2015 cohort saw one-year post-exit median wages of \$14,639 increase to \$16,969 five years post exit. By contrast, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>19</sup> While the annual median post-exit wage of DSB clients is below the state’s annual

<sup>19</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey).



median, it exceeds the federal poverty guidelines each year for a one-person household and for the two-person household by year five, 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.

**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, 2021 Report										
Services for the Blind - Employment and Training Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		3,213	3,245	3,157	2,640	2,980	3,213	3,245	3,157	2,640	3,213	3,245	3,157	3,213	3,245	3,213
Exiters		978	789	1,194	464	571	978	789	1,194	464	978	789	1,194	978	789	978
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exiters Employed In North Carolina	N	466	431	509	279	305	440	382	459	246	428	344	428	397	319	385
	%	48%	55%	43%	60%	53%	45%	48%	38%	53%	44%	44%	36%	41%	40%	39%
Exiters' Wages in North Carolina	Mean	\$16,746	\$17,568	\$18,175	\$21,006	\$21,226	\$17,853	\$18,627	\$20,065	\$22,513	\$18,061	\$20,502	\$20,325	\$19,178	\$22,039	\$19,874
	Median	\$14,639	\$15,118	\$15,073	\$17,614	\$17,020	\$15,361	\$15,416	\$16,954	\$18,649	\$15,119	\$16,947	\$16,869	\$15,981	\$17,474	\$16,969
Exiters Enrolled in NC Public Higher Education	N	67	44	72	27	21	55	39	59	12	46	36	60	31	25	30
	%	7%	6%	6%	6%	4%	6%	5%	5%	3%	5%	5%	5%	3%	3%	3%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	177	99	203	84	123	170	129	323	91	152	125	314	151	129	151
	%	18%	13%	17%	18%	22%	17%	16%	27%	20%	16%	16%	26%	15%	16%	15%
Exiters Enrolled or Employed in NC	N	522	456	582	301	339	499	425	605	274	478	387	569	450	361	437
	%	53%	58%	49%	65%	59%	51%	54%	51%	59%	49%	49%	48%	46%	46%	45%
<b>Exiters' Employment by Industry†</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		5.6%	5.1%	5.7%	6.5%	3.9%	6.6%	5.5%	5.9%	7.3%	6.1%	4.7%	8.2%	5.0%	5.6%	5.7%
Construction		5.4%	3.9%	4.1%	5.7%	3.6%	5.0%	3.9%	4.1%	*	5.8%	4.1%	4.0%	5.5%	5.3%	4.4%
Manufacturing		14.8%	14.8%	15.5%	12.2%	12.5%	14.3%	16.8%	15.9%	13.8%	14.5%	18.6%	15.4%	16.6%	19.1%	15.6%
Retail Trade		19.7%	20.2%	14.7%	18.6%	22.0%	18.0%	19.9%	13.5%	17.1%	20.1%	15.4%	12.4%	19.4%	15.4%	19.7%
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		*	2.6%	3.5%	3.6%	5.2%	*	2.6%	3.9%	*	*	3.2%	3.3%	*	*	*
Professional and Business Services		21.0%	21.8%	17.3%	18.3%	16.1%	20.5%	18.8%	18.5%	16.3%	16.8%	21.2%	15.4%	17.9%	16.0%	17.7%
Educational Services		8.6%	8.6%	7.3%	5.4%	6.9%	7.5%	9.4%	7.4%	6.5%	6.8%	8.7%	7.7%	7.6%	9.1%	7.3%
Health Care and Social Assistance		19.1%	18.3%	20.2%	19.0%	20.0%	18.2%	19.9%	19.6%	18.7%	20.3%	20.9%	19.4%	20.2%	22.3%	19.5%
Leisure and Hospitality		15.5%	16.0%	19.4%	19.7%	20.0%	15.5%	15.7%	20.0%	21.5%	15.2%	15.4%	19.6%	14.4%	14.7%	15.6%
Other Services		3.2%	4.2%	3.7%	4.7%	*	3.6%	3.9%	3.5%	5.3%	2.8%	4.1%	4.4%	3.3%	4.4%	*
Public Administration		4.1%	3.2%	3.5%	*	3.6%	4.8%	3.9%	3.5%	*	4.2%	4.4%	3.7%	3.8%	3.1%	3.6%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$11,134	\$11,369	\$11,688	\$20,241	\$31,147	\$14,615	\$8,189	\$19,854	\$23,394	\$14,184	\$21,846	\$17,473	\$18,616	\$19,143	\$26,606
Construction		\$16,366	\$18,636	\$13,575	\$14,596	\$17,020	\$27,884	\$10,774	\$16,199	*	\$26,736	\$16,093	\$27,772	\$23,444	\$13,750	\$33,407
Manufacturing		\$14,860	\$16,755	\$17,342	\$16,173	\$19,283	\$18,284	\$16,593	\$17,727	\$15,528	\$15,352	\$17,498	\$19,149	\$21,826	\$19,697	\$20,702
Retail Trade		\$8,880	\$8,500	\$8,050	\$10,137	\$8,810	\$11,180	\$7,445	\$12,152	\$13,540	\$9,773	\$11,103	\$12,676	\$12,205	\$10,587	\$11,320
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		*	\$6,143	\$19,002	\$14,829	\$31,019	*	\$6,657	\$13,510	*	*	\$14,113	\$25,381	*	*	*
Professional and Business Services		\$9,481	\$6,737	\$6,108	\$13,665	\$7,264	\$7,311	\$7,509	\$5,057	\$13,328	\$7,977	\$7,300	\$3,476	\$6,281	\$10,660	\$9,348
Educational Services		\$9,424	\$12,731	\$18,461	\$22,991	\$19,307	\$10,200	\$14,023	\$21,520	\$16,993	\$12,046	\$16,287	\$15,710	\$8,227	\$19,104	\$12,496
Health Care and Social Assistance		\$12,286	\$14,271	\$12,024	\$20,267	\$15,182	\$12,567	\$13,073	\$15,061	\$23,547	\$12,867	\$14,266	\$16,672	\$12,377	\$14,006	\$13,806
Leisure and Hospitality		\$6,052	\$5,643	\$5,514	\$10,004	\$7,967	\$9,424	\$7,048	\$7,946	\$5,896	\$6,495	\$7,442	\$7,358	\$9,892	\$6,870	\$6,589
Other Services		\$5,492	\$13,913	\$10,359	\$14,198	*	\$4,633	\$11,864	\$12,781	\$13,800	\$8,690	\$12,111	\$11,242	\$6,769	\$9,984	*
Public Administration		\$13,362	\$13,787	\$18,945	*	\$16,061	\$16,432	\$18,299	\$29,948	*	\$16,405	\$17,712	\$31,966	\$26,594	\$31,270	\$29,549
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$17,029	\$14,952	\$17,439	\$24,270	\$36,010	\$18,569	\$14,590	\$21,644	\$28,324	\$18,516	\$21,216	\$15,611	\$25,828	\$19,925	\$28,694
Construction		\$19,235	\$21,721	\$24,309	\$22,462	\$28,365	\$24,487	\$21,123	\$27,557	*	\$22,151	\$19,358	\$29,997	\$23,383	\$24,178	\$27,678
Manufacturing		\$15,453	\$19,922	\$19,208	\$16,274	\$21,996	\$19,048	\$19,614	\$19,592	\$15,302	\$18,632	\$21,524	\$21,707	\$20,817	\$24,043	\$21,174
Retail Trade		\$11,271	\$10,758	\$10,802	\$12,109	\$12,940	\$11,998	\$9,624	\$13,398	\$13,543	\$11,996	\$12,189	\$14,520	\$13,833	\$12,310	\$13,054
Information		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Financial Activities		*	\$27,819	\$22,070	\$20,743	\$24,828	*	\$30,348	\$21,148	*	*	\$35,951	\$28,343	*	*	*
Professional and Business Services		\$12,749	\$9,864	\$13,827	\$15,847	\$11,931	\$12,550	\$11,785	\$12,013	\$17,098	\$15,026	\$11,292	\$10,347	\$12,558	\$13,380	\$13,906
Educational Services		\$12,573	\$18,122	\$24,927	\$25,654	\$20,476	\$14,608	\$18,343	\$25,153	\$20,543	\$15,357	\$22,567	\$22,318	\$14,958	\$24,594	\$17,257
Health Care and Social Assistance		\$13,950	\$16,846	\$13,680	\$23,481	\$18,166	\$14,935	\$17,505	\$16,654	\$27,109	\$15,227	\$18,494	\$18,743	\$15,379	\$17,325	\$17,442
Leisure and Hospitality		\$9,361	\$8,632	\$8,334	\$10,836	\$10,423	\$11,144	\$8,670	\$9,987	\$9,357	\$9,821	\$8,759	\$9,931	\$10,449	\$9,042	\$9,663
Other Services		\$9,425	\$13,362	\$13,586	\$12,638	*	\$9,027	\$13,739	\$14,083	\$13,950	\$12,316	\$12,230	\$12,724	\$13,229	\$11,944	*
Public Administration		\$17,611	\$17,543	\$25,774	*	\$27,434	\$17,382	\$20,882	\$34,696	*	\$18,094	\$22,541	\$37,472	\$22,112	\$31,675	\$24,072

† 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.<sup>20</sup> 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.<sup>21</sup> 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

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<sup>20</sup> North Carolina Community College System, <http://www.nccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog>

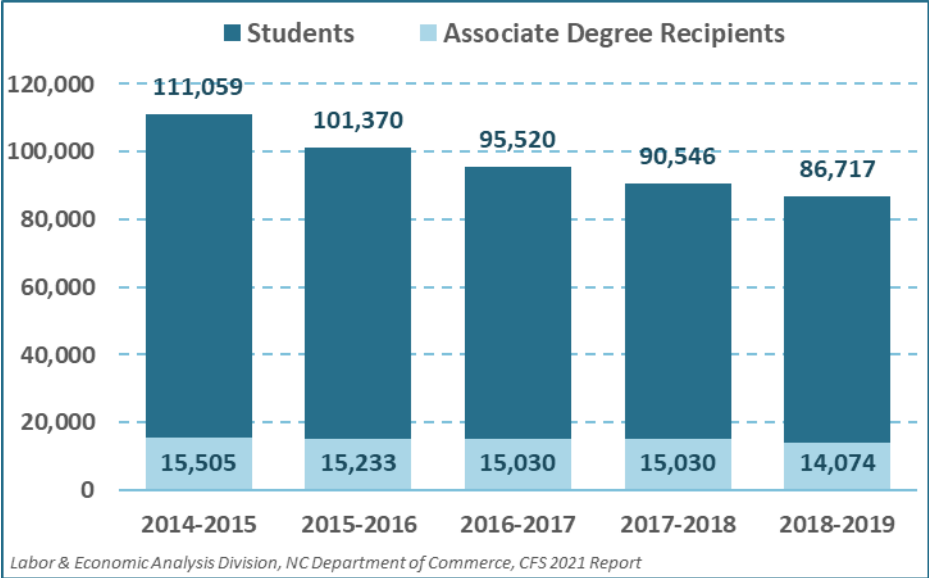
<sup>21</sup> The Strengthening Career and Technical Education for the 21<sup>st</sup> Century (Perkins V) Act replaces the Perkins Act of 2006 (Perkins IV). This went into effect on July 1, 2019.

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.

» CTE Associate Degree Program Outcomes

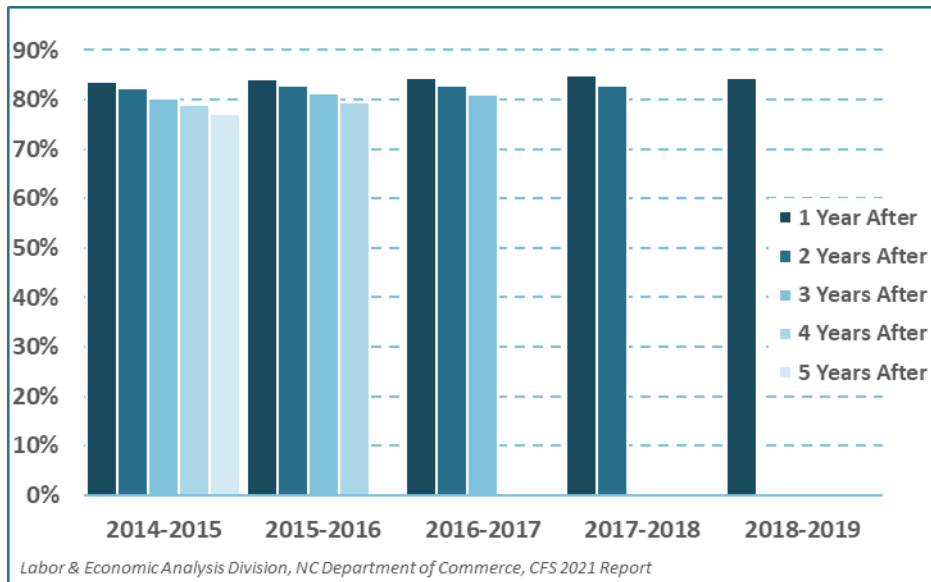
As shown in Figure 29, participation in CTE associate degree programs declined steadily throughout the period studied, with the number of students decreasing from 111,059 in the 2014-2015 program year to 86,717 in 2018-2019. Students who were recorded as having graduated from an associate degree program 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 dropped slightly throughout the study period.

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



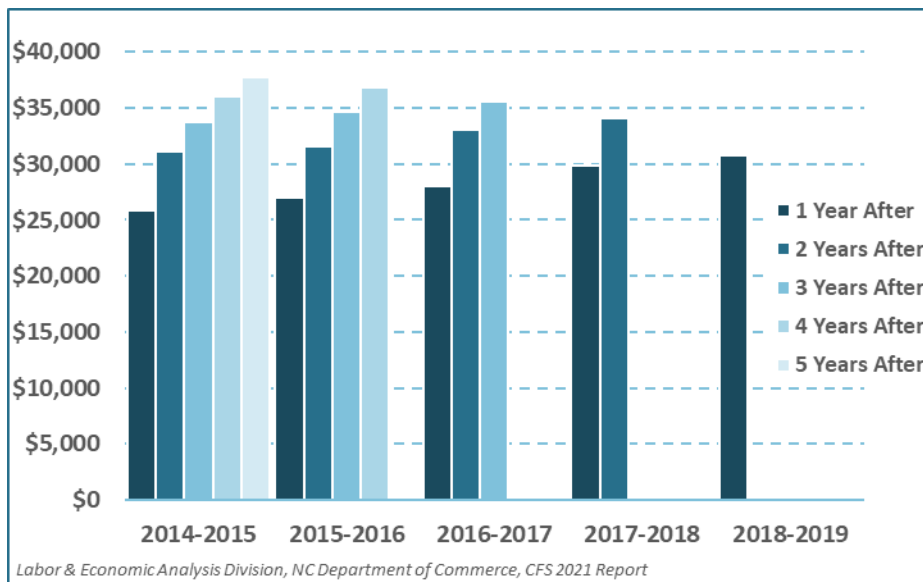
The rate of employment in North Carolina one year after graduation consistently stayed at 84% to 85% across all cohorts, while the rate of subsequent enrollment in public higher education programs remained steady at 29% to 30% (Figure 30 and Table 8). Both employment rates and subsequent enrollment one year after graduation showed minimal fluctuation across cohorts.

**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 \$25,800 for the cohort graduating in 2014-2015 to \$30,806 for the cohort graduating in 2018-2019 (Table 8).

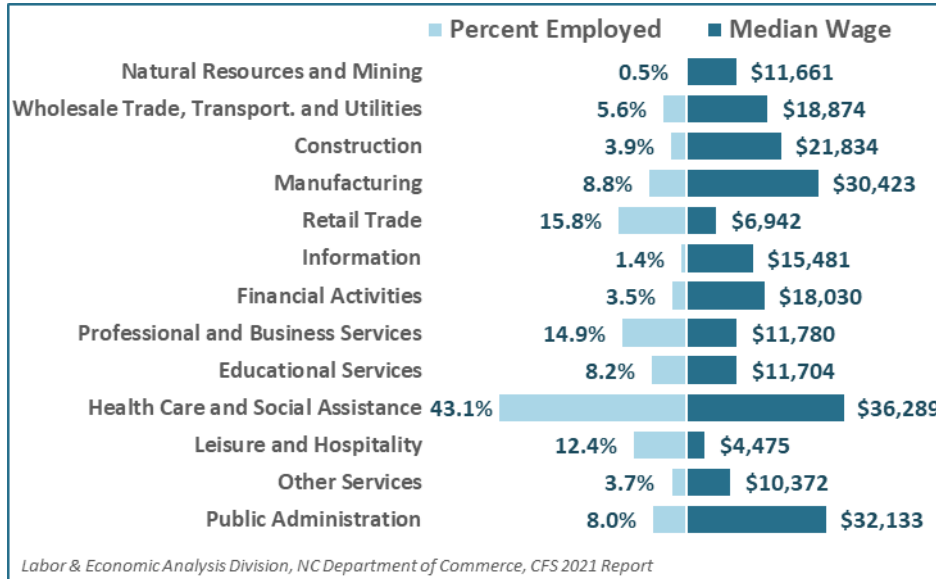
**Figure 31. Median Wage of NCCCS CTE Associate Degree Completers in North Carolina, by Year of Graduation**



In all cohorts examined here, the share of CTE associate degree recipients employed in North Carolina declined slightly when followed over time; for instance, the employment rate for 2014-2015 graduates declined from 84% after one year to 77% after five years (Table 8). Those who were employed in North Carolina saw their wages continue to increase in each year after graduation. For example, the annual median wage for the 2014-2015

cohort increased by 46% (from \$25,800 to \$37,760) over five years. CTE associate degree program 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 (see Appendix Tables 1, 2, 3, and 4); this was also one of the top-paying industry sectors for graduates across all cohorts (Figure 32).

**Figure 32. 2018-2019 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 2014-2015 cohort saw median wages ranging from \$13,565 for commercial and artistic production technologies majors to \$36,188 for health sciences majors (Appendix Table 1). By the fifth year after graduation, health sciences majors earned a median wage of \$47,101, the second highest after construction technologies graduates, who earned \$49,068 five years after graduation. NCCCS graduates earning an associate degree in health sciences also consistently had the highest rate of employment within North Carolina one year after graduation (ranging from 90% to 92%). 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 shown above in Figure 32 for the most recent cohort (also see Table 8).

Graduates of the largest CTE program area, business technologies, had relatively high employment rates of 80% in the first year for all cohorts, and their median earnings showed a steady increase (Appendix Tables 1-4). For the 2014-2015 graduating cohort, median wages increased from \$22,027 one year after graduation to \$33,510 in year five (Appendix Table 1).

**Table 8. NCCCS CTE Associate Degree Participants and Completers, Outcomes One Through Five Years After Graduation, Overall and By Industry**

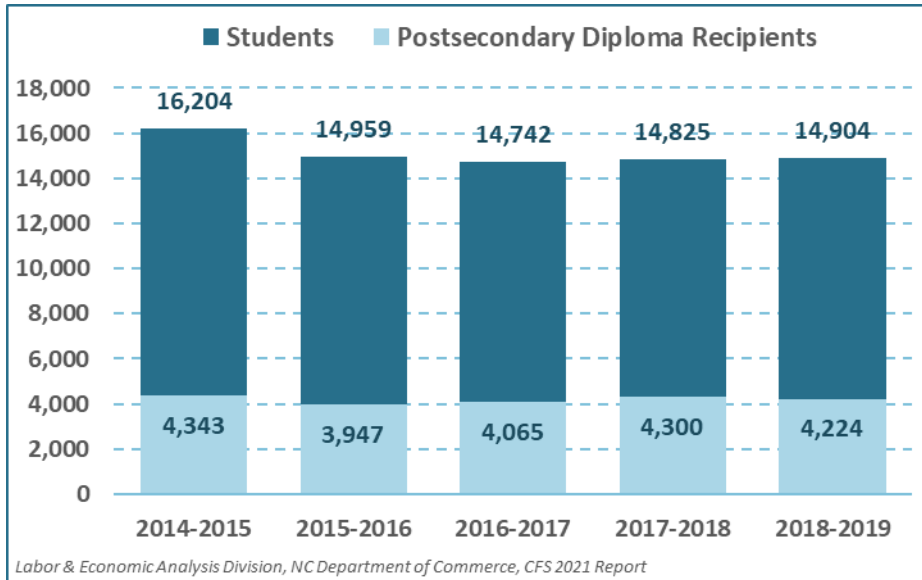
North Carolina Community College System						Common Follow-up System: Evaluative Measures, 2021 Report										
Associate Degree																
All Programs						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Students		111,059	101,370	95,520	90,546	86,717	111,059	101,370	95,520	90,546	111,059	101,370	95,520	111,059	101,370	111,059
Associate Degree Recipients		15,505	15,233	15,030	15,030	14,074	15,505	15,233	15,030	15,030	15,505	15,233	15,030	15,505	15,233	15,505
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Associate Degree Recipients Employed in North Carolina	N	12,976	12,817	12,680	12,750	11,870	12,747	12,607	12,454	12,443	12,449	12,382	12,173	12,239	12,108	11,947
	%	84%	84%	84%	85%	84%	82%	83%	83%	83%	80%	81%	81%	79%	79%	77%
Associate Degree Recipients' Wages in North Carolina	Mean	\$27,678	\$29,236	\$29,840	\$31,900	\$32,699	\$33,185	\$33,814	\$35,321	\$36,307	\$35,625	\$36,911	\$37,705	\$38,296	\$39,044	\$40,079
	Median	\$25,800	\$27,019	\$28,007	\$29,901	\$30,806	\$31,120	\$31,571	\$33,106	\$34,123	\$33,718	\$34,682	\$35,557	\$36,066	\$36,836	\$37,760
Graduates Enrolled in NC Public Higher Education	N	4,633	4,549	4,450	4,505	4,031	3,993	3,889	3,922	3,866	3,511	3,460	3,227	2,947	2,741	2,383
	%	30%	30%	30%	30%	29%	26%	26%	26%	23%	23%	21%	19%	18%	15%	
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	6,110	5,787	5,730	5,935	5,655	4,968	4,897	5,303	5,548	4,510	4,682	4,940	4,193	4,381	3,981
	%	39%	38%	38%	39%	40%	32%	32%	35%	37%	29%	31%	33%	27%	29%	26%
Graduates Enrolled or Employed in NC	N	13,900	13,688	13,477	13,595	12,642	13,432	13,219	13,134	13,147	13,022	12,944	12,797	12,755	12,584	12,424
	%	90%	90%	90%	90%	90%	87%	87%	87%	84%	85%	85%	82%	83%	80%	
<b>Graduates' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.5%	0.6%	0.5%	0.5%	0.5%	0.4%	0.5%	0.4%	0.5%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%
Wholesale Trade, Transport. and Utilities		5.9%	5.7%	5.6%	5.4%	5.6%	6.2%	5.4%	5.8%	5.5%	6.4%	5.5%	5.9%	6.6%	5.7%	6.6%
Construction		3.6%	3.6%	4.1%	4.4%	3.9%	3.6%	3.6%	4.1%	3.9%	3.4%	3.7%	4.0%	3.5%	3.7%	3.4%
Manufacturing		8.7%	8.7%	9.0%	9.1%	8.8%	9.0%	9.4%	9.3%	9.1%	9.5%	10.0%	9.1%	9.9%	9.9%	10.0%
Retail Trade		16.9%	16.4%	16.7%	15.5%	15.8%	13.0%	13.4%	13.7%	12.9%	11.9%	12.4%	12.1%	10.8%	11.4%	10.1%
Information		1.6%	1.4%	1.3%	1.2%	1.4%	1.5%	1.4%	1.4%	1.5%	1.5%	1.4%	1.3%	1.5%	1.3%	1.5%
Financial Activities		3.7%	3.4%	3.3%	3.2%	3.5%	3.5%	3.5%	3.5%	3.5%	3.7%	3.8%	3.7%	3.9%	4.1%	4.1%
Professional and Business Services		18.1%	17.9%	16.8%	16.8%	14.9%	16.5%	16.4%	15.9%	15.3%	15.7%	16.2%	15.0%	15.5%	15.6%	15.3%
Educational Services		8.7%	9.9%	9.7%	8.3%	8.2%	9.6%	10.4%	8.7%	8.5%	10.3%	9.6%	8.9%	9.6%	9.7%	9.6%
Health Care and Social Assistance		41.0%	42.1%	41.4%	42.1%	43.1%	40.7%	41.0%	41.2%	41.5%	39.9%	40.3%	40.7%	39.4%	39.7%	39.2%
Leisure and Hospitality		13.4%	14.0%	13.9%	13.9%	12.4%	10.1%	10.1%	10.2%	10.1%	9.0%	8.9%	8.9%	8.2%	7.9%	7.3%
Other Services		3.9%	3.6%	3.6%	3.6%	3.7%	3.4%	3.3%	3.4%	3.0%	3.2%	2.9%	3.1%	3.2%	2.7%	3.0%
Public Administration		7.4%	7.9%	7.8%	8.1%	8.0%	8.2%	8.5%	8.5%	8.5%	8.9%	9.1%	9.3%	9.2%	9.4%	9.3%
<b>Graduates' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$13,777	\$12,147	\$9,752	\$8,934	\$11,661	\$21,974	\$25,769	\$15,489	\$16,600	\$20,000	\$30,509	\$23,446	\$21,250	\$31,674	\$23,873
Wholesale Trade, Transport. and Utilities		\$17,268	\$15,000	\$15,498	\$19,160	\$18,874	\$25,001	\$23,044	\$24,882	\$26,106	\$28,218	\$28,733	\$27,733	\$29,822	\$30,233	\$31,800
Construction		\$17,064	\$18,549	\$20,079	\$19,547	\$21,834	\$23,022	\$20,549	\$24,214	\$28,010	\$29,343	\$27,515	\$29,922	\$30,474	\$31,200	\$31,870
Manufacturing		\$25,081	\$25,270	\$27,189	\$30,158	\$30,423	\$32,928	\$32,436	\$34,060	\$38,909	\$35,867	\$35,911	\$36,276	\$38,139	\$37,210	\$38,942
Retail Trade		\$6,620	\$7,927	\$7,981	\$8,033	\$6,942	\$10,269	\$11,089	\$10,652	\$10,739	\$12,192	\$12,513	\$11,919	\$13,390	\$14,109	\$14,491
Information		\$12,184	\$14,606	\$14,841	\$12,112	\$15,481	\$20,075	\$21,832	\$22,550	\$20,299	\$27,007	\$30,304	\$23,289	\$32,046	\$33,363	\$35,502
Financial Activities		\$15,021	\$16,299	\$14,383	\$22,451	\$18,030	\$24,258	\$24,146	\$22,673	\$24,588	\$26,788	\$27,451	\$27,203	\$31,192	\$27,271	\$33,305
Professional and Business Services		\$9,600	\$9,823	\$10,952	\$11,143	\$11,780	\$12,219	\$13,451	\$14,011	\$15,918	\$15,732	\$16,428	\$18,290	\$17,089	\$18,836	\$19,004
Educational Services		\$9,021	\$10,756	\$10,558	\$9,990	\$11,704	\$15,102	\$16,807	\$13,549	\$16,177	\$18,413	\$17,807	\$18,198	\$18,195	\$19,500	\$21,053
Health Care and Social Assistance		\$28,885	\$30,347	\$30,863	\$34,824	\$36,289	\$35,364	\$34,967	\$38,245	\$38,797	\$35,503	\$37,291	\$37,740	\$38,572	\$37,970	\$38,052
Leisure and Hospitality		\$5,244	\$5,441	\$5,615	\$5,184	\$4,475	\$6,412	\$6,395	\$7,319	\$6,287	\$6,781	\$7,705	\$7,444	\$8,062	\$7,400	\$8,673
Other Services		\$7,376	\$6,457	\$8,203	\$8,861	\$10,372	\$12,162	\$9,501	\$10,833	\$11,462	\$14,738	\$13,093	\$15,421	\$15,760	\$15,714	\$18,886
Public Administration		\$28,195	\$28,931	\$30,902	\$32,885	\$32,133	\$33,494	\$35,151	\$36,382	\$36,234	\$36,032	\$37,641	\$36,885	\$37,633	\$37,960	\$38,027
<b>Graduates' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$17,049	\$18,452	\$15,605	\$19,794	\$17,592	\$24,088	\$24,075	\$20,315	\$21,730	\$22,385	\$28,623	\$23,077	\$24,100	\$30,425	\$28,153
Wholesale Trade, Transport. and Utilities		\$22,715	\$20,992	\$22,463	\$23,856	\$23,288	\$27,585	\$26,726	\$29,722	\$28,488	\$30,705	\$32,382	\$32,389	\$34,090	\$33,760	\$36,541
Construction		\$20,444	\$20,906	\$21,663	\$22,254	\$22,917	\$25,408	\$23,189	\$26,694	\$28,378	\$29,320	\$29,221	\$31,680	\$32,154	\$32,542	\$34,422
Manufacturing		\$27,837	\$28,329	\$29,035	\$32,174	\$30,911	\$34,078	\$33,856	\$34,908	\$35,856	\$36,705	\$37,272	\$37,929	\$40,033	\$38,777	\$40,766
Retail Trade		\$10,638	\$11,974	\$12,011	\$12,827	\$12,024	\$14,294	\$15,302	\$15,137	\$15,519	\$16,174	\$17,323	\$16,732	\$17,913	\$18,629	\$19,397
Information		\$20,600	\$20,133	\$19,314	\$19,649	\$21,025	\$26,687	\$23,771	\$26,945	\$26,049	\$29,564	\$31,302	\$31,034	\$34,860	\$34,779	\$36,958
Financial Activities		\$18,965	\$19,680	\$18,340	\$25,470	\$20,980	\$24,642	\$24,718	\$23,345	\$27,955	\$27,059	\$27,473	\$27,247	\$31,415	\$29,732	\$33,409
Professional and Business Services		\$14,606	\$14,808	\$16,286	\$16,768	\$17,440	\$17,937	\$18,254	\$20,062	\$20,745	\$20,739	\$21,629	\$22,897	\$22,830	\$23,939	\$24,109
Educational Services		\$13,463	\$14,379	\$14,541	\$14,787	\$15,974	\$17,120	\$18,445	\$17,046	\$17,757	\$19,322	\$18,634	\$19,216	\$19,605	\$20,209	\$21,217
Health Care and Social Assistance		\$29,298	\$30,734	\$31,462	\$33,936	\$34,852	\$35,388	\$35,731	\$37,901	\$38,583	\$36,388	\$38,064	\$38,300	\$39,107	\$38,840	\$39,127
Leisure and Hospitality		\$8,901	\$9,159	\$9,399	\$9,110	\$8,385	\$11,113	\$10,664	\$11,726	\$10,383	\$12,183	\$12,234	\$12,106	\$13,506	\$12,379	\$13,396
Other Services		\$12,501	\$12,192	\$12,808	\$13,499	\$14,634	\$15,985	\$15,115	\$16,032	\$15,928	\$18,221	\$18,967	\$18,109	\$21,476	\$20,636	\$22,745
Public Administration		\$28,110	\$28,440	\$29,846	\$32,222	\$32,282	\$32,841	\$33,350	\$34,552	\$35,360	\$35,157	\$35,839	\$35,773	\$37,059	\$38,192	\$38,439

\* 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 was highest in the first year of the study (16,204 in the 2014-2015 program year) then remained fairly stable in the range between 14,742 and 14,959 in subsequent years. 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 3,947 to 4,343.

**Figure 33. NCCCS CTE Diploma Program Participants and Completers by Program Year**

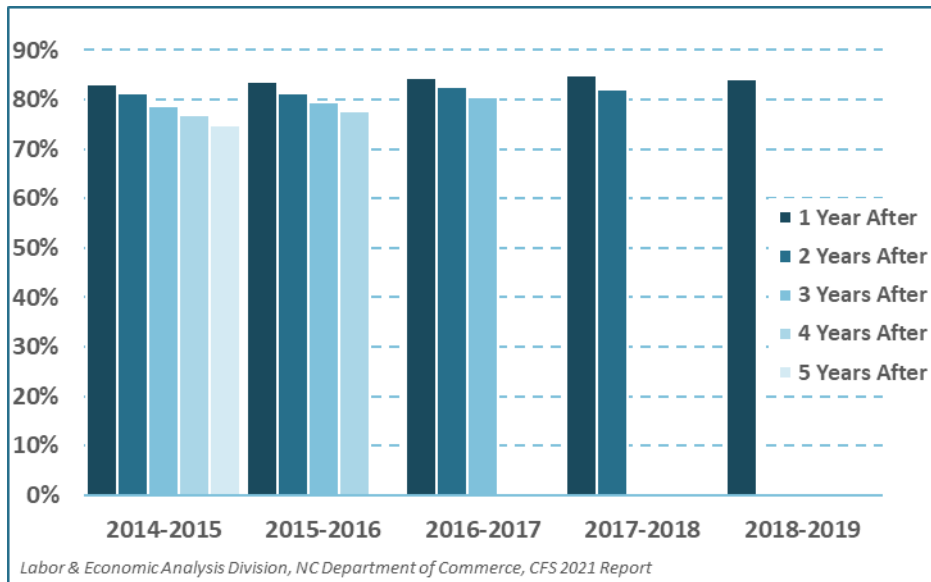


The rate of employment in North Carolina one year after earning a CTE diploma ranged from 83% to 85% (Figure 34 and Table 9). The rate of subsequent enrollment in public higher education programs ranged from 35% to 40%, with both employment and subsequent enrollment outcomes fluctuating from cohort to cohort (Table 9).

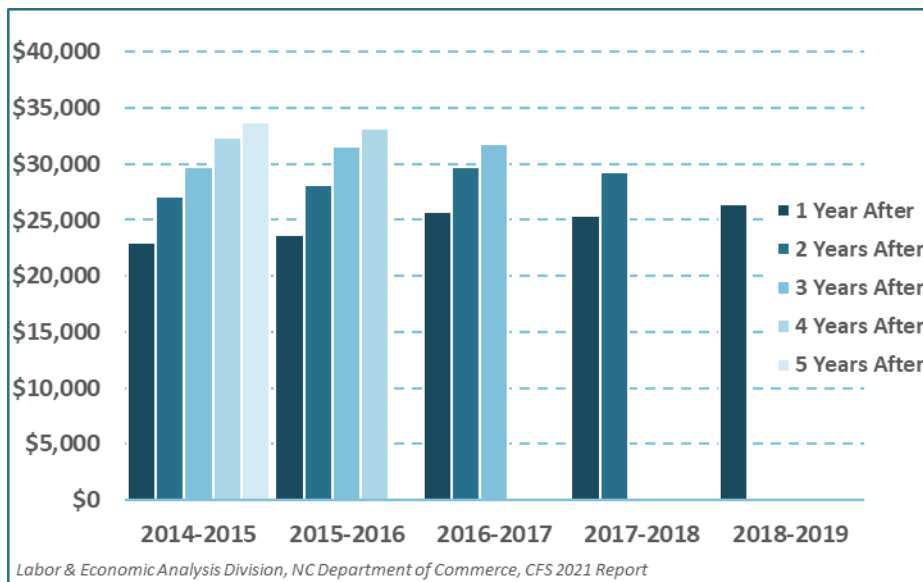
Wage earnings one year after graduation generally trended upward with each successive cohort (Figure 35 and Table 9), with the exception of a slight drop for the 2017-2018 graduating class. Median wage earnings rose from \$23,016 for the cohort graduating in 2014-2015 to \$26,367 for the 2018-2019 graduates.



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



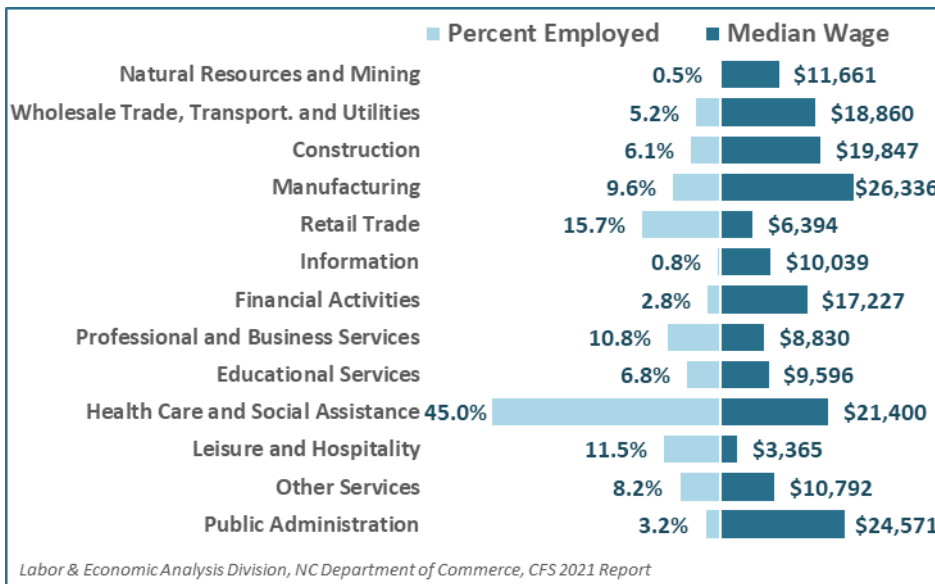
**Figure 35. Median Wage of NCCCS CTE Diploma Recipients in North Carolina, by Year of Graduation**



The share of CTE diploma recipients from each cohort employed in North Carolina declined slightly over time, a common pattern across workforce training programs. For instance, the employment rate for 2014-2015 graduates declined from 83% after one year to 75% after five years. Of those CTE Diploma recipients who were employed, wages increased each year after graduation, another pattern shared across many workforce programs.

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. 2018-2019 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 2014-2015 cohort saw median wages ranging from \$11,817 for commercial and artistic production technologies majors to \$26,120 for health sciences majors (Appendix Table 5). By the fifth year after graduation, engineering technologies majors had the highest earnings with a median wage of \$46,869, health sciences majors' earnings ranked fifth among all majors at \$35,456, and artistic and production technologies graduates earned \$20,724. For all cohorts, health sciences graduates also had the highest employment rate within North Carolina, with one-year employment rates of 90% to 92% depending on the cohort. This is consistent with the much higher employment rate and relatively higher wages for CTE diploma recipients working in the Health Care and Social Assistance industry, as 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**

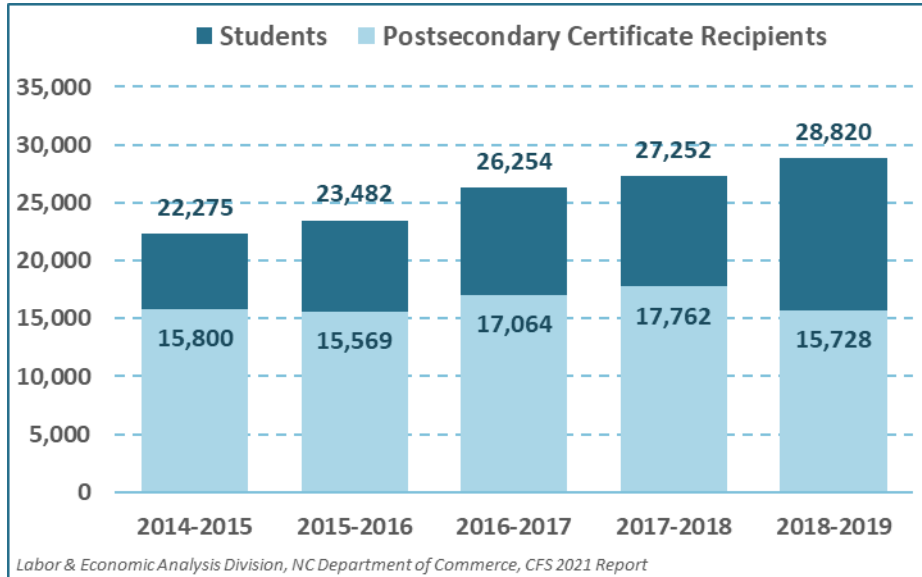
North Carolina Community College System Postsecondary Diploma All Programs						Common Follow-up System: Evaluative Measures, 2021 Report										
Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce																
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Students		16,204	14,959	14,742	14,825	14,904	16,204	14,959	14,742	14,825	16,204	14,959	14,742	16,204	14,959	16,204
Postsecondary Diploma Recipients		4,343	3,947	4,065	4,300	4,224	4,343	3,947	4,065	4,300	4,343	3,947	4,065	4,343	3,947	4,343
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Postsecondary Diploma Recipients Employed in North Carolina	N	3,605	3,296	3,428	3,655	3,553	3,530	3,210	3,360	3,532	3,421	3,132	3,276	3,341	3,066	3,253
	%	83%	84%	84%	85%	84%	81%	81%	83%	82%	79%	79%	81%	77%	78%	75%
Postsecondary Diploma Recipients' Wages in North Carolina	Mean	\$23,474	\$24,466	\$26,521	\$26,417	\$27,330	\$27,427	\$28,902	\$30,881	\$29,817	\$30,607	\$32,798	\$33,356	\$33,686	\$34,829	\$35,402
	Median	\$23,016	\$23,647	\$25,701	\$25,433	\$26,367	\$27,075	\$28,147	\$29,784	\$29,255	\$29,777	\$31,518	\$31,814	\$32,386	\$33,197	\$33,761
Graduates Enrolled in NC Public Higher Education	N	1,592	1,506	1,547	1,728	1,474	1,123	1,036	1,106	1,049	852	872	806	744	612	563
	%	37%	38%	38%	40%	35%	26%	26%	27%	24%	20%	22%	20%	17%	16%	13%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	1,940	1,747	1,872	2,074	1,974	1,380	1,297	1,510	1,559	1,143	1,185	1,346	1,093	1,026	1,037
	%	45%	44%	46%	48%	47%	32%	33%	37%	36%	26%	30%	33%	25%	26%	24%
Graduates Enrolled or Employed in NC	N	3,916	3,577	3,691	3,971	3,800	3,722	3,381	3,528	3,698	3,560	3,279	3,419	3,464	3,180	3,352
	%	90%	91%	91%	92%	90%	86%	86%	87%	86%	82%	83%	84%	80%	81%	77%
<b>Graduates' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.4%	0.5%	0.6%	0.4%	0.5%	0.3%	0.5%	0.6%	0.3%	*	0.4%	0.6%	0.4%	*	0.5%
Wholesale Trade, Transport, and Utilities		4.6%	5.2%	5.2%	4.2%	5.2%	5.0%	4.9%	5.3%	4.5%	4.9%	5.2%	5.6%	5.0%	5.4%	5.3%
Construction		5.5%	6.5%	6.9%	7.0%	6.1%	5.4%	6.2%	7.2%	6.6%	5.5%	5.9%	6.3%	5.4%	5.6%	5.1%
Manufacturing		9.4%	9.5%	10.3%	10.3%	9.6%	9.5%	10.2%	10.8%	10.0%	10.2%	10.6%	10.6%	10.6%	10.0%	10.3%
Retail Trade		16.2%	15.7%	15.1%	16.6%	15.7%	13.5%	12.9%	12.1%	13.1%	11.9%	12.0%	11.3%	10.2%	10.1%	8.6%
Information		1.0%	0.8%	0.7%	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%	0.8%	0.6%	0.6%	0.8%	0.6%	0.9%
Financial Activities		2.9%	2.3%	2.3%	2.5%	2.8%	3.0%	2.5%	2.5%	2.8%	3.3%	2.9%	2.4%	3.4%	2.9%	3.8%
Professional and Business Services		14.6%	14.1%	14.1%	13.5%	10.8%	12.7%	12.1%	14.2%	12.4%	12.5%	12.1%	12.5%	12.8%	11.0%	12.3%
Educational Services		6.4%	7.1%	7.2%	6.6%	6.8%	7.1%	7.3%	6.3%	6.8%	7.3%	6.8%	6.4%	6.7%	6.6%	6.9%
Health Care and Social Assistance		46.2%	45.9%	45.9%	44.6%	45.0%	47.1%	46.2%	45.6%	43.9%	46.6%	47.0%	44.7%	46.8%	46.1%	47.0%
Leisure and Hospitality		14.7%	13.5%	12.5%	13.5%	11.5%	10.2%	9.5%	9.1%	9.1%	9.0%	7.8%	7.8%	8.6%	6.9%	7.5%
Other Services		7.5%	7.9%	8.1%	7.8%	8.2%	6.1%	7.1%	7.0%	6.6%	6.2%	6.7%	6.4%	5.6%	6.0%	5.1%
Public Administration		3.6%	3.5%	3.3%	3.6%	3.2%	3.6%	3.7%	3.8%	4.2%	4.1%	4.1%	4.3%	4.5%	4.4%	4.5%
<b>Graduates' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$8,839	\$2,451	\$11,704	\$9,407	\$11,661	\$7,861	\$21,949	\$12,589	\$17,483	*	\$27,300	\$23,321	\$36,885	\$31,316	\$27,933
Wholesale Trade, Transport, and Utilities		\$16,297	\$15,007	\$16,209	\$15,600	\$18,860	\$25,114	\$27,062	\$28,720	\$22,596	\$27,532	\$26,890	\$25,900	\$29,795	\$31,316	\$31,459
Construction		\$15,242	\$17,132	\$18,998	\$19,536	\$19,847	\$20,790	\$24,234	\$22,218	\$25,350	\$22,874	\$29,183	\$24,698	\$29,182	\$30,863	\$27,939
Manufacturing		\$22,309	\$21,647	\$25,224	\$26,857	\$26,336	\$30,131	\$31,039	\$32,746	\$32,028	\$32,820	\$34,247	\$33,387	\$38,320	\$35,430	\$34,067
Retail Trade		\$6,132	\$5,514	\$5,747	\$6,855	\$6,394	\$8,868	\$7,715	\$9,846	\$7,889	\$9,888	\$10,240	\$9,694	\$10,367	\$11,557	\$12,268
Information		\$5,116	\$6,360	\$9,924	\$7,671	\$10,039	\$11,629	\$11,921	\$11,897	\$18,611	\$17,201	\$28,497	\$41,433	\$17,010	\$27,042	\$22,493
Financial Activities		\$10,495	\$7,753	\$10,022	\$10,673	\$17,227	\$14,750	\$17,188	\$14,008	\$18,228	\$17,013	\$19,582	\$25,593	\$28,025	\$21,147	\$29,138
Professional and Business Services		\$6,971	\$7,394	\$8,775	\$8,400	\$8,830	\$7,524	\$9,493	\$11,450	\$10,259	\$10,648	\$9,165	\$13,095	\$10,650	\$12,508	\$10,094
Educational Services		\$7,630	\$10,060	\$7,731	\$8,091	\$9,596	\$12,981	\$13,846	\$14,185	\$17,378	\$12,108	\$16,164	\$21,152	\$18,181	\$19,730	\$20,535
Health Care and Social Assistance		\$23,857	\$24,854	\$26,108	\$26,200	\$21,400	\$26,717	\$27,798	\$28,620	\$22,950	\$29,612	\$30,804	\$24,746	\$32,127	\$26,327	\$26,877
Leisure and Hospitality		\$3,884	\$3,583	\$4,234	\$4,476	\$3,365	\$5,293	\$5,336	\$5,092	\$4,460	\$5,751	\$6,384	\$4,738	\$5,452	\$5,624	\$5,273
Other Services		\$7,982	\$10,787	\$9,017	\$9,969	\$10,792	\$15,921	\$16,722	\$15,152	\$13,759	\$14,467	\$17,968	\$16,140	\$17,453	\$17,812	\$15,430
Public Administration		\$17,500	\$11,977	\$22,670	\$22,322	\$24,571	\$29,285	\$27,162	\$32,486	\$29,991	\$32,759	\$32,989	\$33,948	\$32,916	\$32,060	\$33,368
<b>Graduates' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$16,403	\$9,737	\$17,057	\$17,309	\$14,315	\$23,527	\$18,308	\$21,939	\$23,032	*	\$25,187	\$23,077	\$40,979	*	\$32,585
Wholesale Trade, Transport, and Utilities		\$18,764	\$19,771	\$21,402	\$21,983	\$23,478	\$24,765	\$27,142	\$29,748	\$24,796	\$28,898	\$31,146	\$28,831	\$32,371	\$33,313	\$32,520
Construction		\$19,005	\$19,827	\$20,164	\$21,616	\$20,022	\$23,909	\$24,411	\$23,905	\$25,109	\$25,525	\$30,490	\$27,308	\$30,078	\$29,919	\$29,392
Manufacturing		\$25,649	\$24,942	\$27,595	\$28,004	\$27,824	\$31,240	\$31,914	\$33,931	\$32,190	\$33,756	\$34,689	\$34,917	\$37,079	\$36,308	\$35,959
Retail Trade		\$9,334	\$9,560	\$10,711	\$10,772	\$10,317	\$12,144	\$12,391	\$14,153	\$12,575	\$13,218	\$14,525	\$14,976	\$15,200	\$14,994	\$15,996
Information		\$16,140	\$12,961	\$18,261	\$15,028	\$19,230	\$23,115	\$18,091	\$30,641	\$22,467	\$27,720	\$29,632	\$52,681	\$29,793	\$30,623	\$32,516
Financial Activities		\$15,400	\$16,512	\$16,526	\$15,245	\$19,480	\$19,047	\$20,866	\$21,280	\$19,965	\$21,775	\$23,632	\$26,785	\$27,750	\$23,850	\$29,657
Professional and Business Services		\$11,195	\$12,372	\$14,030	\$13,563	\$13,629	\$13,768	\$15,358	\$17,624	\$16,280	\$16,459	\$17,089	\$19,673	\$17,124	\$19,393	\$17,544
Educational Services		\$11,687	\$14,120	\$12,361	\$14,631	\$15,296	\$15,704	\$16,573	\$17,161	\$19,406	\$16,729	\$18,829	\$21,098	\$19,100	\$20,582	\$20,604
Health Care and Social Assistance		\$22,767	\$24,074	\$25,390	\$25,669	\$21,829	\$26,066	\$27,273	\$28,454	\$22,900	\$29,229	\$30,849	\$25,788	\$32,470	\$27,877	\$28,396
Leisure and Hospitality		\$6,829	\$6,804	\$7,583	\$7,996	\$6,284	\$9,117	\$8,817	\$9,128	\$8,324	\$10,103	\$10,642	\$8,795	\$10,583	\$10,847	\$10,157
Other Services		\$11,773	\$13,911	\$13,045	\$13,498	\$13,845	\$17,709	\$18,878	\$18,127	\$16,996	\$18,282	\$22,046	\$19,254	\$20,865	\$21,871	\$20,798
Public Administration		\$21,754	\$20,617	\$23,859	\$25,235	\$24,713	\$28,411	\$27,207	\$29,139	\$28,800	\$31,036	\$30,684	\$31,444	\$32,091	\$30,265	\$32,154

\* 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 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 22,275 in the 2014-2015 program year to 28,820 in 2018-2019. 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 recipients fluctuated by program year from a low of 15,800 in 2014-2015 to a peak in 2017-2018 of 17,762.

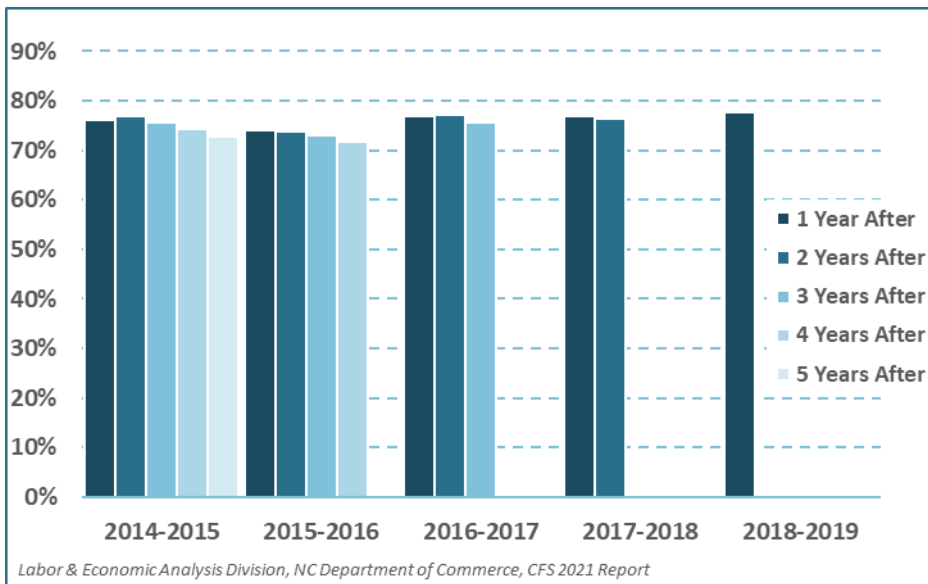
**Figure 37. NCCCS CTE Certificate Program Participants and Completers by Program Year**



The rate of employment in North Carolina one year after graduation ranged from 74% to 77%, while the rate of subsequent enrollment in public higher education programs ranged from 59% to 64% (Figure 38 and Table 10). Both outcomes fluctuated from cohort to cohort, showing no clear trend.

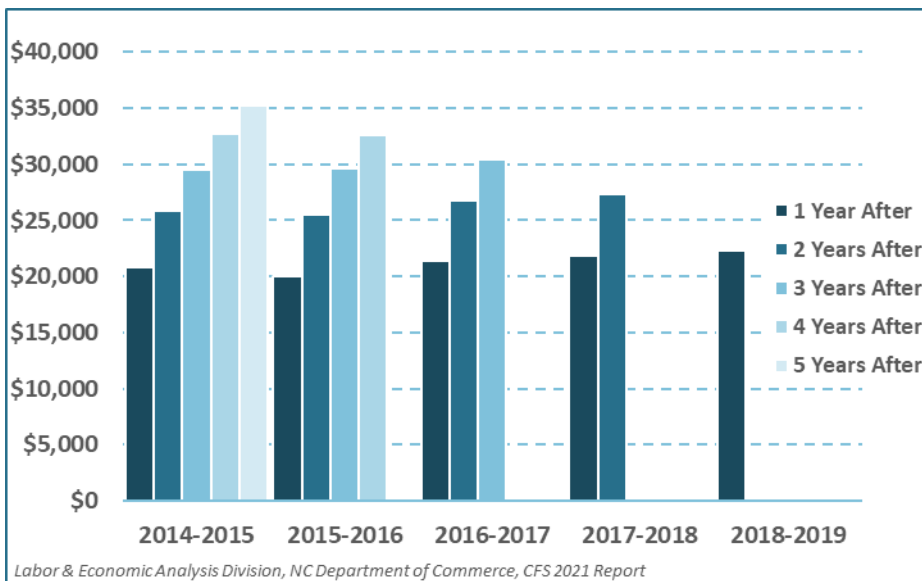
The share of CTE certificate recipients employed in North Carolina tended to decrease slightly over time for each graduating cohort, although this trend was neither as strong nor consistent as most other programs. For instance, the employment rate for 2014-2015 graduates increased from 76% one year after graduation to 77% two years after graduation before decreasing to 73% five years after graduation (Figure 38 and 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 fluctuated across cohorts, with median wage earnings ranging from \$19,985 for the cohort graduating in 2015-2016 to \$22,245 for the 2018-2019 graduates (Figure 39 and 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 and Table 10).

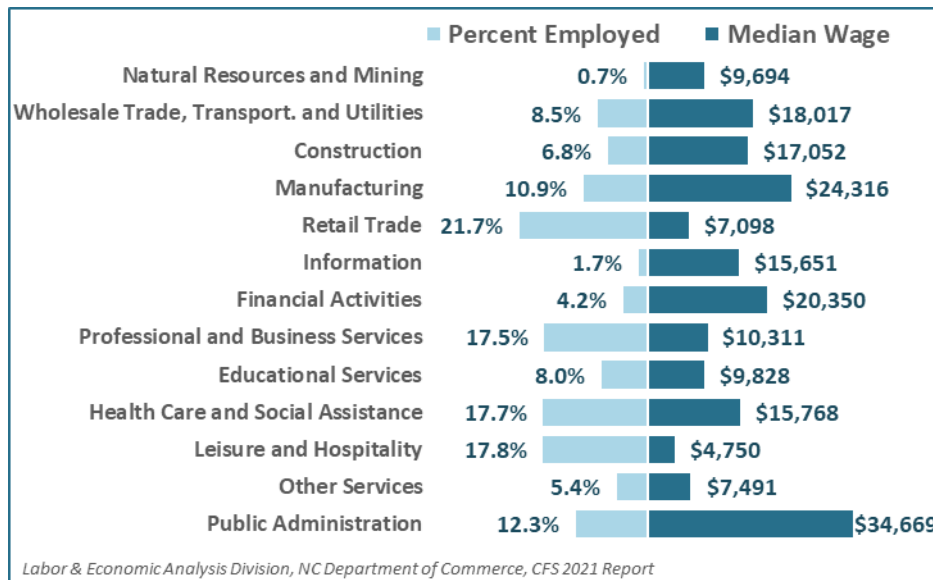
**Figure 39. Median Wage of NCCCS CTE Certificate Recipients in North Carolina, by Year of Graduation**



For the most recent cohort (2018-2019), CTE certificate recipients' top industries of employment one year after graduation were Retail Trade (22%), Leisure and Hospitality (18%), Health Care and Social Assistance (18%), and Professional and Business Services (18%) (Figure 40). Recipients employed in Leisure and Hospitality had the lowest median earnings (\$4,750) of graduates in any sector. However, over time for each cohort, the percentage of CTE certificate recipients employed in Leisure and Hospitality and Retail Trade

declined while more found jobs in the relatively higher-paying Manufacturing and Public Administration sectors. For example, the 2014-2015 cohort fell from 21.3% to 13.4% in the Retail Trade sector and from 16.9% to 9.7% in the Leisure and Hospitality sector after five years and rose from 11.7% to 13.5% in Manufacturing and from 14.6% to 15.6% in Public Administration by four years. Although median wages generally rise over time for these cohorts, the Retail Trade and Leisure and Hospitality sectors have the lowest median wages by year five of \$14,108 and \$7,235, respectively. The two highest median wage rates by year five are Public Administration at \$44,862 and Manufacturing at \$38,600.

**Figure 40. 2018-2019 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 2014-2015 cohort saw one-year post-graduation median wages ranging from \$11,391 for commercial and artistic production technologies majors to \$29,201 for biological and chemical technologies majors. Graduates of the largest two programs offered by NCCCS for the 2018-2019 program year, business technologies and public service technologies, earned \$24,074 and \$21,050, respectively, in their first year after completion. Biological and chemical technologies, while the smallest NCCCS certificate program in terms of enrollment, is one of the top-earning program areas, with first-year median wages reaching \$26,816 for the 2018-2019 cohort of certificate recipients.

**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, 2021 Report										
Postsecondary Certificate						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
All Programs																
Program Year	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015	
Students	22,275	23,482	26,254	27,252	28,820	22,275	23,482	26,254	27,252	22,275	23,482	26,254	22,275	23,482	22,275	
Postsecondary Certificate Recipients	15,800	15,569	17,064	17,762	15,728	15,800	15,569	17,064	17,762	15,800	15,569	17,064	15,800	15,569	15,800	
<b>Post-Completion Outcome Measures</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Postsecondary Certificate Recipients Employed in North Carolina	N %	12,028 76%	11,526 74%	13,120 77%	13,663 77%	12,202 78%	12,166 77%	11,501 74%	13,177 77%	13,577 76%	11,934 76%	11,349 73%	12,885 76%	11,753 74%	11,148 72%	11,472 73%
Postsecondary Certificate Recipients' Wages in North Carolina	Mean Median	\$25,298 \$20,769	\$24,043 \$19,985	\$25,540 \$21,389	\$26,740 \$21,850	\$26,792 \$22,245	\$29,860 \$25,891	\$28,999 \$25,541	\$30,659 \$26,762	\$31,718 \$27,384	\$33,387 \$29,523	\$33,062 \$29,594	\$34,157 \$30,435	\$36,965 \$32,703	\$36,066 \$35,559	\$39,904 \$35,219
Graduates Enrolled in NC Public Higher Education	N %	9,249 59%	9,147 59%	10,590 62%	11,293 64%	9,452 60%	6,081 38%	5,970 38%	6,808 40%	6,897 39%	4,557 29%	4,410 28%	4,828 28%	3,703 23%	3,472 22%	3,155 20%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N %	10,157 64%	9,848 63%	11,349 67%	12,224 69%	10,469 67%	7,107 45%	6,974 45%	8,147 48%	8,586 48%	5,567 35%	5,686 37%	6,678 39%	5,033 32%	5,147 33%	4,853 31%
Graduates Enrolled or Employed in NC	N %	14,299 91%	13,796 89%	15,583 91%	16,330 92%	14,475 92%	13,463 85%	12,848 83%	14,598 86%	15,169 85%	12,819 81%	12,261 79%	13,935 82%	12,447 79%	11,898 76%	12,109 77%
<b>Graduates' Employment by Industry*</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		0.7%	0.7%	0.9%	0.8%	0.7%	0.7%	0.6%	0.8%	0.7%	0.6%	0.6%	0.7%	0.7%	0.6%	0.7%
Wholesale Trade, Transport, and Utilities		8.1%	8.0%	7.9%	7.0%	8.5%	8.5%	8.0%	8.0%	7.6%	8.7%	8.6%	8.4%	9.1%	8.7%	9.3%
Construction		5.9%	6.6%	6.7%	7.4%	6.8%	6.2%	6.9%	7.1%	7.4%	6.3%	7.1%	7.2%	6.3%	7.1%	6.3%
Manufacturing		11.7%	12.0%	11.4%	12.5%	10.9%	12.3%	13.7%	12.4%	12.7%	12.9%	14.4%	12.5%	13.5%	14.2%	13.3%
Retail Trade		21.3%	21.0%	21.1%	21.4%	21.7%	18.2%	18.5%	18.7%	18.5%	16.3%	17.2%	16.3%	14.8%	15.2%	13.4%
Information		1.8%	1.5%	1.8%	1.4%	1.7%	1.7%	1.3%	1.9%	1.5%	1.7%	1.4%	1.6%	1.9%	1.6%	1.8%
Financial Activities		3.8%	4.0%	4.1%	3.8%	4.2%	3.7%	4.3%	4.3%	4.4%	4.1%	4.6%	4.6%	4.3%	4.9%	4.6%
Professional and Business Services		21.1%	19.9%	19.6%	19.2%	17.5%	21.2%	19.9%	20.1%	18.4%	20.3%	19.7%	18.5%	19.5%	18.1%	18.3%
Educational Services		9.6%	9.1%	9.0%	8.7%	8.0%	10.3%	9.8%	9.0%	8.9%	10.4%	9.8%	8.8%	10.2%	9.3%	10.2%
Health Care and Social Assistance		17.6%	18.5%	19.1%	18.3%	17.7%	17.9%	18.8%	19.2%	18.1%	18.1%	18.6%	19.1%	17.9%	18.1%	18.1%
Leisure and Hospitality		16.9%	19.2%	19.0%	19.4%	17.8%	13.9%	15.1%	15.8%	15.3%	12.0%	12.5%	13.6%	10.9%	11.0%	9.7%
Other Services		5.4%	5.6%	5.2%	5.8%	5.4%	4.9%	4.9%	4.8%	5.0%	4.7%	4.6%	4.5%	4.4%	4.1%	4.1%
Public Administration		14.6%	12.5%	12.2%	11.8%	12.3%	15.0%	12.7%	12.3%	12.1%	15.1%	13.4%	12.5%	15.6%	13.6%	15.6%
<b>Graduates' Median Wages by Industry of Employment</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$9,992	\$5,184	\$7,295	\$5,868	\$9,694	\$11,893	\$7,295	\$14,806	\$12,067	\$16,914	\$15,232	\$21,694	\$26,793	\$20,114	\$27,792
Wholesale Trade, Transport, and Utilities		\$18,054	\$12,985	\$13,738	\$14,761	\$18,017	\$22,726	\$21,146	\$22,100	\$18,599	\$27,062	\$23,532	\$25,052	\$28,483	\$28,317	\$29,608
Construction		\$12,599	\$13,430	\$15,601	\$15,745	\$17,052	\$18,405	\$19,082	\$21,919	\$25,345	\$23,693	\$25,825	\$25,840	\$27,779	\$30,632	\$31,466
Manufacturing		\$21,997	\$22,928	\$21,535	\$25,068	\$24,316	\$28,516	\$28,196	\$31,855	\$30,986	\$33,446	\$33,991	\$33,494	\$37,875	\$34,948	\$38,600
Retail Trade		\$6,790	\$6,264	\$7,225	\$7,215	\$7,098	\$8,456	\$8,390	\$8,525	\$7,741	\$11,082	\$9,657	\$9,786	\$12,792	\$10,720	\$14,108
Information		\$11,942	\$8,625	\$10,854	\$10,752	\$15,651	\$17,971	\$15,749	\$18,289	\$16,091	\$19,952	\$24,484	\$26,149	\$28,703	\$27,958	\$37,434
Financial Activities		\$16,292	\$15,872	\$16,811	\$21,458	\$20,350	\$22,681	\$22,097	\$23,280	\$22,783	\$24,286	\$27,269	\$26,494	\$29,851	\$26,864	\$32,087
Professional and Business Services		\$8,593	\$7,462	\$8,452	\$9,050	\$10,311	\$10,050	\$9,295	\$10,434	\$12,293	\$11,696	\$10,704	\$13,983	\$13,410	\$14,371	\$15,694
Educational Services		\$10,065	\$9,346	\$10,501	\$10,757	\$9,828	\$13,094	\$13,324	\$16,395	\$15,111	\$18,171	\$17,469	\$20,662	\$20,046	\$21,049	\$22,037
Health Care and Social Assistance		\$15,397	\$15,677	\$16,610	\$16,188	\$15,768	\$18,853	\$18,331	\$19,961	\$19,864	\$20,511	\$21,325	\$20,126	\$22,921	\$22,179	\$24,329
Leisure and Hospitality		\$5,158	\$4,714	\$5,417	\$5,188	\$4,750	\$6,096	\$5,119	\$5,779	\$5,357	\$5,699	\$5,838	\$5,713	\$6,403	\$5,578	\$7,235
Other Services		\$6,109	\$6,365	\$7,469	\$8,099	\$7,491	\$9,094	\$9,421	\$9,131	\$11,916	\$12,297	\$11,846	\$11,832	\$14,983	\$12,411	\$17,650
Public Administration		\$34,017	\$32,969	\$34,246	\$35,547	\$34,669	\$38,865	\$38,280	\$39,735	\$38,551	\$41,199	\$40,795	\$40,419	\$43,595	\$40,788	\$44,862
<b>Graduates' Average Wages by Industry of Employment</b>						<b>1 Year After</b>		<b>2 Years After</b>		<b>3 Years After</b>		<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$16,365	\$12,868	\$13,828	\$13,907	\$14,179	\$22,167	\$16,780	\$21,513	\$18,569	\$27,113	\$22,520	\$27,696	\$33,548	\$25,384	\$34,014
Wholesale Trade, Transport, and Utilities		\$22,969	\$21,532	\$21,661	\$22,489	\$24,003	\$27,249	\$27,688	\$28,805	\$26,063	\$30,989	\$31,204	\$30,219	\$33,373	\$34,796	\$34,890
Construction		\$19,283	\$18,933	\$20,890	\$22,095	\$20,620	\$24,830	\$25,088	\$27,031	\$28,900	\$28,538	\$31,141	\$29,784	\$32,656	\$33,782	\$36,057
Manufacturing		\$27,892	\$27,702	\$27,293	\$31,497	\$28,198	\$32,439	\$31,775	\$34,551	\$36,185	\$36,187	\$35,923	\$36,759	\$39,909	\$37,906	\$42,197
Retail Trade		\$10,917	\$10,783	\$11,524	\$12,105	\$11,700	\$13,683	\$13,622	\$13,835	\$13,716	\$16,349	\$15,570	\$15,388	\$18,713	\$16,994	\$20,197
Information		\$20,654	\$16,154	\$21,145	\$23,079	\$24,856	\$26,249	\$20,931	\$28,588	\$25,897	\$29,243	\$28,123	\$36,095	\$34,348	\$30,990	\$43,738
Financial Activities		\$21,830	\$23,202	\$24,106	\$27,545	\$26,560	\$25,222	\$26,870	\$27,677	\$29,207	\$27,442	\$31,154	\$30,501	\$32,409	\$33,404	\$35,195
Professional and Business Services		\$14,311	\$13,751	\$15,466	\$16,674	\$17,388	\$17,428	\$16,772	\$18,910	\$20,235	\$20,026	\$19,552	\$22,410	\$22,592	\$23,026	\$25,476
Educational Services		\$15,816	\$15,597	\$17,813	\$17,696	\$15,439	\$18,301	\$18,881	\$20,988	\$20,371	\$21,125	\$20,743	\$23,055	\$23,290	\$23,400	\$24,769
Health Care and Social Assistance		\$18,041	\$18,230	\$19,014	\$19,743	\$19,260	\$20,662	\$20,630	\$21,696	\$22,334	\$22,277	\$23,182	\$22,560	\$24,970	\$24,810	\$26,194
Leisure and Hospitality		\$8,967	\$8,325	\$9,308	\$8,780	\$8,232	\$10,235	\$9,347	\$10,455	\$9,819	\$11,336	\$10,934	\$10,997	\$12,551	\$11,189	\$13,175
Other Services		\$10,859	\$10,882	\$12,456	\$13,698	\$12,329	\$14,871	\$14,483	\$14,880	\$17,641	\$17,039	\$17,363	\$16,966	\$20,243	\$18,410	\$22,313
Public Administration		\$34,533	\$30,358	\$32,009	\$32,798	\$32,399	\$39,021	\$35,994	\$37,328	\$36,622	\$42,330	\$38,130	\$38,466	\$44,784	\$39,119	\$47,021

\* 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.

Between the 2014-2015 and 2018-2019 program years, CTE certificate programs have experienced a significant increase in enrollment and completion while associate degree programs experienced a declining enrollment and the number of CTE diploma enrollees fluctuated. This could possibly be attributed to the tightening labor market, with more individuals choosing to pursue employment opportunities rather than taking a year or more to upgrade their education and skills.

There is still a gap between the number of students participating in CTE associate degree programs each year and the smaller number of students graduating each year. This may reflect in part the large number of associate degree students who attend part time and thus have a long time to completion. Additionally, given the tight labor market in the period from 2014 to 2019, it could be that greater numbers of community college program participants were being hired prior to receiving their credential as the economy improved and employers struggled 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.

It is important to keep in mind that the variation in outcomes between different areas of study and different degree levels should be interpreted with caution as the student body may vary significantly in terms of demographics, employment history, and other social or economic aspects across different community colleges programs.



## *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.

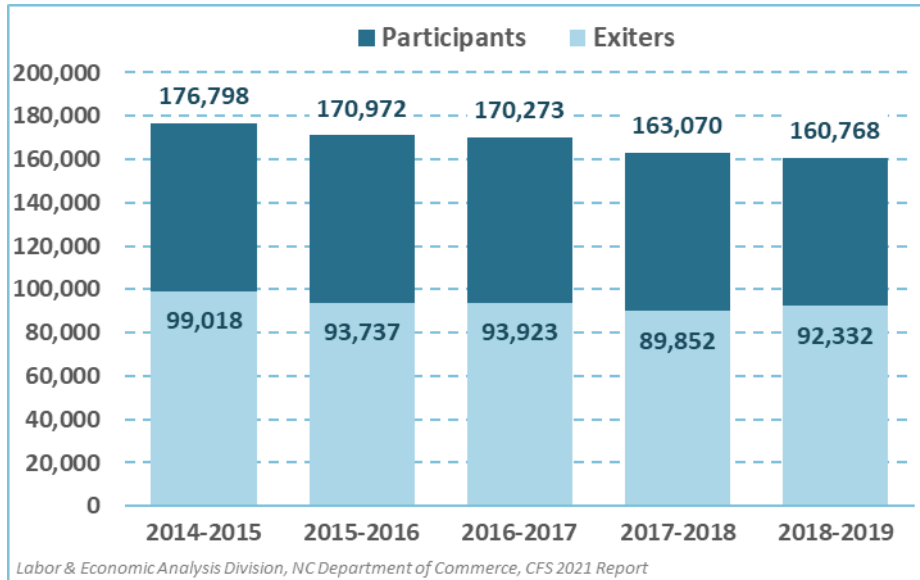
### » **Overview of Workforce Continuing Education Programs**

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**

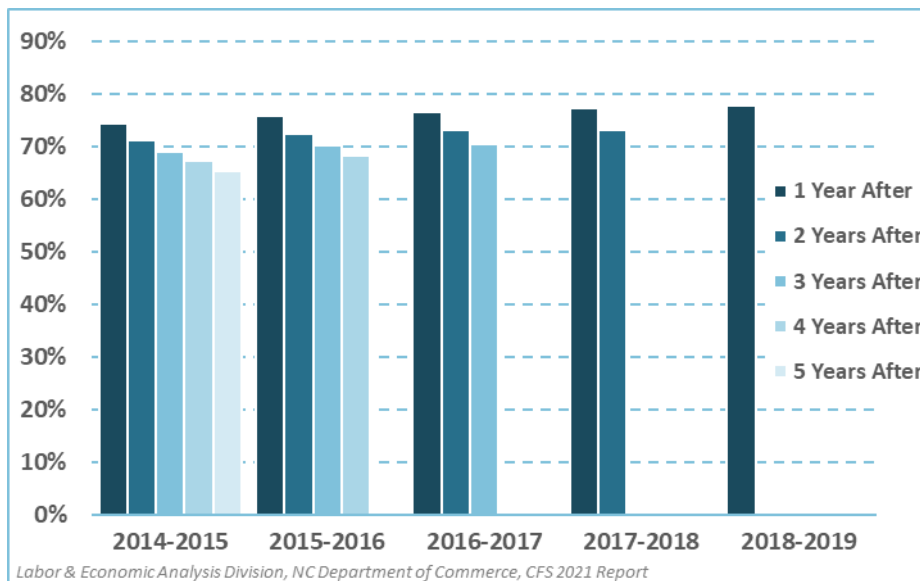
Analyses revealed a steady decline in the number of Workforce Continuing Education participants across the program years (Figure 41 and Table 11). Enrollment in these programs was at a five-year high of 176,798 during the 2014-2015 program year and declined slowly each year to 160,768 in 2018-2019. Participants 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.

**Figure 41. NCCCS Workforce Continuing Education Program Participants and Exitters by Program Year**



Employment and wage outcomes were derived for each cohort of Workforce Continuing Education program year exitters for up to five years after exit. As shown in Figure 42, one-year post-exit employment rates for Workforce Continuing Education program participants increased across the five years, ranging from 74% for the 2014-2015 program year exitters to a high of 78% for the 2018-2019 program year exitters. When considering a longer time horizon for a cohort, this percentage showed a slight decline, a trend common to most workforce programs. For example, while 74% of 2014-2015 program year completers were employed after one year, only 65% were employed in North Carolina after five years.

**Figure 42. Percentage of NCCCS Workforce Continuing Education Program Exitters Employed in North Carolina, by Year of Exit**



One-year post-exit median wages are higher for each successive cohort from a low of \$26,790 for the 2014-2015 program year exitters to a high of \$30,915 for the 2018-2019 program year exitters (Figure 43). Over

time, median post-exit earnings exhibited steady progress for all Workforce Continuing Education exiter cohorts. For example, for the 2014-2015 program year cohort, median wages rose each year, from \$26,790 in their first year after completion to \$36,126 in year five.

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

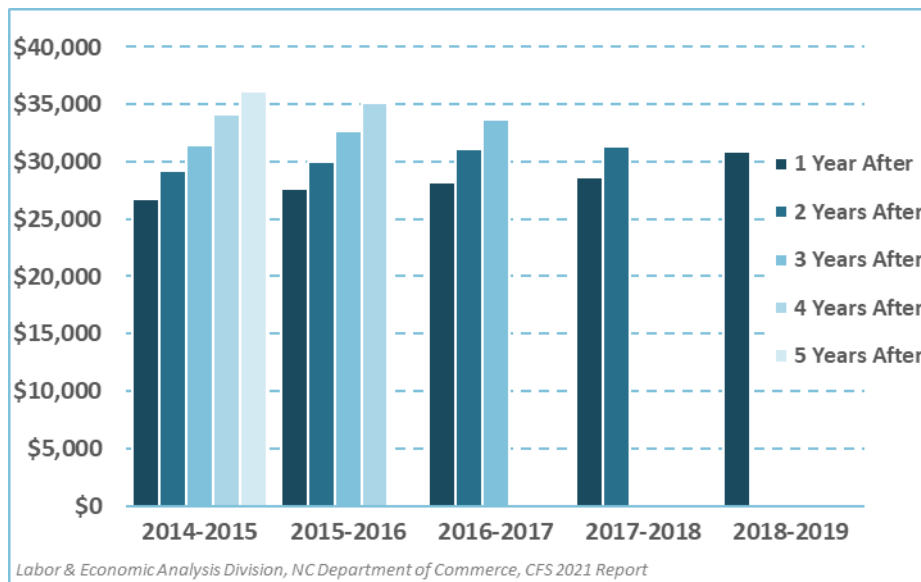
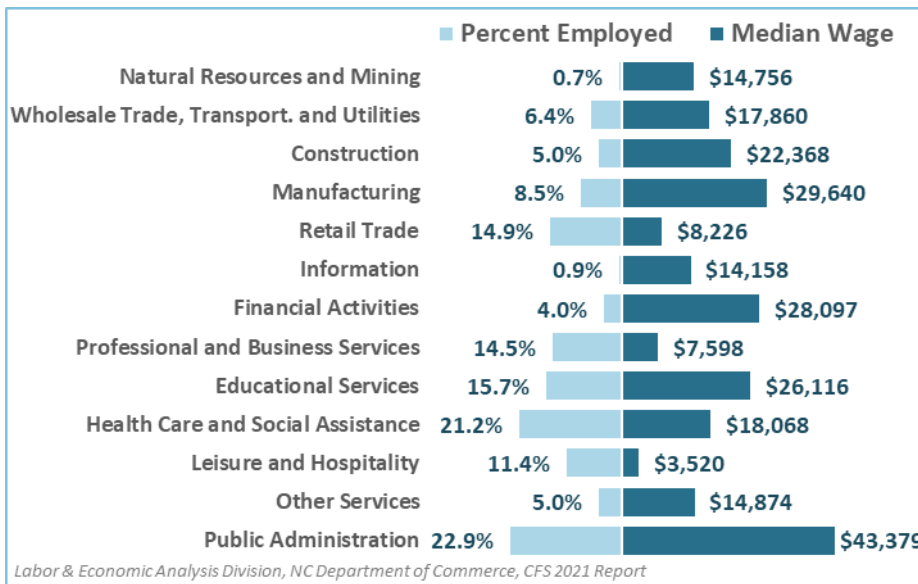


Figure 44 summarizes one-year outcomes by industry for the most recent cohort of exiters (2018-2019). It shows that Public Administration (23%) and Health Care and Social Assistance (21%) were the two most common industries of employment for Workforce Continuing Education participants. Public Administration, provides the highest pay (median annual wage of \$43,379), placing it 46% more than Manufacturing, the second highest paying industry. For comparison, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>22</sup>

<sup>22</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Figure 44. 2018-2019 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 rising one-year post-exit employment rates and median wages for Workforce Continuing Education program exiters. 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, leaving the labor force, or taking non-UI covered employment. 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 by individual. 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, 2021 Report												
Workforce Continuing Education Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce												
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015
Participants		176,798	170,972	170,273	163,070	160,768	176,798	170,972	170,273	163,070	176,798	170,972	170,273	176,798	170,972			176,798
Exiters		99,018	93,737	93,923	89,852	92,332	99,018	93,737	93,923	89,852	99,018	93,737	93,923	99,018	93,737			99,018
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>		
Exiters Employed In North Carolina	N %	73,631 74%	71,016 76%	71,920 77%	69,417 77%	71,822 78%	70,655 71%	67,831 72%	68,700 73%	65,868 73%	68,450 69%	65,940 70%	66,332 71%	66,693 67%	63,925 68%			64,732 65%
Exiters' Wages in North Carolina	Mean Median	\$31,551 \$26,790	\$32,306 \$27,622	\$32,653 \$28,216	\$33,495 \$28,630	\$35,389 \$30,915	\$33,888 \$29,267	\$34,465 \$29,982	\$35,446 \$31,158	\$35,906 \$31,311	\$35,865 \$31,420	\$37,134 \$32,673	\$37,826 \$33,687	\$38,466 \$34,084	\$39,408 \$35,185			\$40,567 \$36,126
Exiters Enrolled in NC Public Higher Education	N %	18,111 18%	17,380 19%	16,952 18%	16,875 19%	15,756 17%	28,500 29%	26,672 28%	27,003 29%	24,561 27%	20,986 21%	19,422 21%	19,526 21%	21,334 22%	18,518 20%			15,363 16%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	25,888 26%	24,481 26%	24,073 26%	25,730 29%	26,183 28%	34,007 34%	32,268 34%	34,096 36%	33,886 38%	26,395 27%	26,105 28%	28,308 30%	27,840 28%	26,918 29%			23,704 24%
Exiters Enrolled or Employed in NC	N %	78,795 80%	75,512 81%	76,211 81%	73,822 82%	76,129 82%	76,453 77%	73,182 78%	74,257 79%	71,554 80%	72,752 73%	70,154 75%	71,082 76%	71,189 72%	68,447 73%			68,635 69%
<b>Exiters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		0.8%	0.7%	0.7%	0.8%	0.7%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%	0.7%	0.7%	0.7%			0.7%
Wholesale Trade, Transport. and Utilities		5.9%	6.2%	6.0%	6.3%	6.4%	6.3%	6.6%	6.4%	6.9%	6.5%	6.9%	6.8%	6.8%	7.2%			7.1%
Construction		4.8%	5.1%	4.9%	5.3%	5.0%	5.1%	5.5%	5.3%	5.4%	5.2%	5.6%	5.3%	5.5%	5.6%			5.6%
Manufacturing		8.5%	8.8%	9.1%	9.7%	8.5%	9.1%	9.5%	9.6%	9.9%	9.4%	9.8%	9.6%	9.9%	10.0%			9.9%
Retail Trade		17.4%	16.9%	16.2%	16.0%	14.9%	16.0%	15.5%	14.9%	14.9%	14.9%	14.5%	14.0%	14.0%	13.7%			13.4%
Information		1.1%	1.1%	1.1%	0.9%	0.9%	1.2%	1.1%	1.1%	0.9%	1.1%	1.2%	1.1%	1.2%	1.2%			1.2%
Financial Activities		5.4%	5.6%	5.0%	4.3%	4.0%	5.5%	5.7%	5.1%	4.6%	5.6%	5.7%	5.3%	5.7%	5.9%			5.9%
Professional and Business Services		16.8%	16.5%	15.5%	15.3%	14.5%	16.4%	16.1%	15.6%	14.9%	16.0%	16.0%	15.0%	16.0%	15.5%			15.3%
Educational Services		14.9%	13.7%	16.3%	13.7%	15.7%	14.9%	13.7%	15.4%	13.4%	15.0%	13.1%	15.2%	14.4%	12.9%			14.1%
Health Care and Social Assistance		19.9%	21.0%	20.8%	22.1%	21.2%	20.6%	21.2%	21.5%	22.8%	20.8%	21.9%	21.9%	21.2%	21.9%			21.4%
Leisure and Hospitality		11.9%	12.1%	11.8%	12.3%	11.4%	10.9%	11.0%	10.5%	10.5%	10.9%	10.1%	9.6%	9.2%	9.0%			8.5%
Other Services		5.3%	5.1%	5.3%	5.3%	5.0%	5.0%	5.0%	5.1%	4.9%	4.9%	4.9%	4.8%	4.9%	4.7%			4.7%
Public Administration		18.0%	18.7%	19.4%	20.3%	22.9%	15.9%	16.2%	17.0%	18.0%	15.6%	16.0%	16.9%	15.5%	15.9%			15.4%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$9,272	\$12,715	\$16,504	\$14,200	\$14,756	\$13,103	\$18,184	\$19,114	\$17,276	\$15,453	\$19,508	\$24,013	\$19,440	\$26,300			\$26,178
Wholesale Trade, Transport. and Utilities		\$18,036	\$16,883	\$17,178	\$16,968	\$17,860	\$22,246	\$21,581	\$21,298	\$21,199	\$23,526	\$24,500	\$24,152	\$24,999	\$26,500			\$27,260
Construction		\$21,358	\$22,206	\$23,021	\$20,768	\$22,368	\$23,113	\$23,380	\$25,419	\$25,965	\$26,000	\$27,711	\$29,031	\$28,311	\$31,417			\$30,178
Manufacturing		\$29,195	\$29,930	\$28,090	\$29,952	\$29,640	\$31,266	\$32,454	\$32,152	\$33,184	\$32,952	\$34,915	\$33,793	\$34,785	\$36,566			\$36,823
Retail Trade		\$8,957	\$9,318	\$9,047	\$9,099	\$8,226	\$11,046	\$11,085	\$11,035	\$10,719	\$12,487	\$12,608	\$12,524	\$14,666	\$14,837			\$15,641
Information		\$21,302	\$17,326	\$16,241	\$15,826	\$14,158	\$22,461	\$25,049	\$24,416	\$21,285	\$27,399	\$25,040	\$29,059	\$29,125	\$27,674			\$33,294
Financial Activities		\$28,400	\$29,559	\$28,759	\$27,183	\$28,097	\$31,205	\$31,795	\$31,468	\$29,928	\$33,499	\$34,684	\$33,432	\$35,130	\$36,440			\$36,763
Professional and Business Services		\$8,001	\$7,328	\$7,444	\$6,761	\$7,598	\$8,876	\$8,469	\$8,589	\$8,618	\$9,902	\$9,522	\$10,368	\$10,772	\$11,185			\$12,139
Educational Services		\$23,963	\$22,130	\$24,277	\$23,351	\$26,116	\$25,120	\$24,829	\$27,905	\$25,987	\$27,282	\$26,842	\$30,051	\$29,978	\$29,374			\$32,103
Health Care and Social Assistance		\$15,084	\$15,965	\$16,125	\$16,961	\$18,068	\$18,194	\$19,049	\$19,684	\$20,645	\$21,069	\$22,259	\$23,007	\$24,515	\$25,761			\$27,137
Leisure and Hospitality		\$3,740	\$3,622	\$3,661	\$3,398	\$3,520	\$4,068	\$4,051	\$4,144	\$3,746	\$4,193	\$4,084	\$4,161	\$4,250	\$4,455			\$4,636
Other Services		\$14,155	\$15,235	\$14,348	\$13,988	\$14,874	\$16,921	\$16,642	\$15,946	\$16,577	\$17,765	\$17,388	\$19,000	\$18,919	\$19,821			\$22,247
Public Administration		\$36,055	\$36,958	\$37,461	\$39,880	\$43,379	\$39,814	\$40,639	\$41,718	\$43,585	\$41,272	\$42,957	\$43,590	\$43,417	\$44,670			\$44,778
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>		
Natural Resources and Mining		\$18,802	\$22,316	\$24,616	\$22,336	\$23,866	\$21,164	\$25,955	\$26,099	\$24,785	\$23,003	\$27,796	\$29,786	\$25,244	\$32,084			\$29,478
Wholesale Trade, Transport. and Utilities		\$28,428	\$27,223	\$26,494	\$27,097	\$28,571	\$30,631	\$29,779	\$29,949	\$29,801	\$32,314	\$32,654	\$31,674	\$34,174	\$34,196			\$35,476
Construction		\$26,554	\$27,303	\$28,349	\$27,228	\$27,658	\$28,824	\$29,025	\$30,877	\$30,452	\$30,903	\$32,693	\$33,985	\$33,273	\$35,960			\$35,442
Manufacturing		\$35,885	\$34,945	\$34,259	\$36,141	\$35,692	\$37,143	\$36,603	\$36,717	\$38,402	\$38,126	\$38,844	\$38,545	\$39,973	\$40,239			\$41,567
Retail Trade		\$17,719	\$18,376	\$17,611	\$17,948	\$17,241	\$19,786	\$20,029	\$20,218	\$19,888	\$21,078	\$21,818	\$22,105	\$23,262	\$23,451			\$24,857
Information		\$32,610	\$30,751	\$28,833	\$30,795	\$29,442	\$35,239	\$35,048	\$34,249	\$34,212	\$39,132	\$35,251	\$38,435	\$38,528	\$38,125			\$43,576
Financial Activities		\$31,998	\$33,231	\$32,953	\$29,789	\$32,638	\$35,115	\$35,924	\$36,213	\$33,097	\$37,424	\$39,186	\$38,940	\$39,748	\$40,981			\$42,659
Professional and Business Services		\$16,832	\$16,831	\$16,876	\$16,150	\$17,333	\$18,782	\$18,667	\$19,116	\$18,717	\$20,401	\$20,619	\$21,218	\$21,979	\$22,896			\$24,572
Educational Services		\$27,914	\$26,638	\$28,325	\$28,195	\$30,651	\$29,384	\$28,899	\$31,176	\$30,387	\$31,039	\$30,818	\$32,659	\$33,019	\$32,526			\$34,577
Health Care and Social Assistance		\$20,898	\$21,942	\$21,388	\$22,697	\$23,153	\$23,171	\$24,229	\$24,231	\$25,265	\$25,389	\$27,019	\$27,150	\$28,942	\$30,225			\$31,327
Leisure and Hospitality		\$7,853	\$7,455	\$7,700	\$7,151	\$7,306	\$8,761	\$8,479	\$8,693	\$7,974	\$9,303	\$8,797	\$9,107	\$10,086	\$9,439			\$10,576
Other Services		\$19,730	\$20,738	\$20,295	\$20,303	\$21,020	\$21,885	\$22,471	\$22,057	\$22,866	\$22,991	\$23,510	\$24,365	\$24,299	\$25,977			\$26,683
Public Administration		\$35,490	\$36,241	\$36,530	\$39,196	\$42,785	\$39,495	\$40,143	\$41,072	\$43,902	\$41,136	\$42,892	\$43,516	\$43,289	\$45,047			\$45,207

\* 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

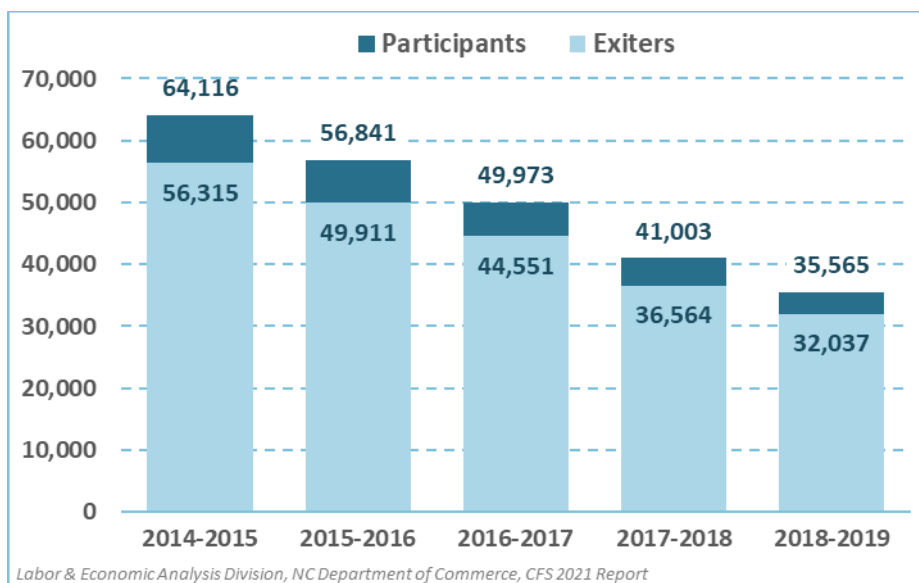
Human Resources Development (HRD) programs operated by the North Carolina Community Colleges consist of instructional programs targeting unemployed and underemployed adults. HRD training focuses on the assessment and development of employability competency skills identified as “essential” for the workplace. 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, childcare, home health care, hospitality, tourism training, or other skills training matched to local workforce needs.<sup>23</sup>

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 a steady, significant decline in the number of participants in HRD programs between the 2014-2015 and 2018-2019.

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



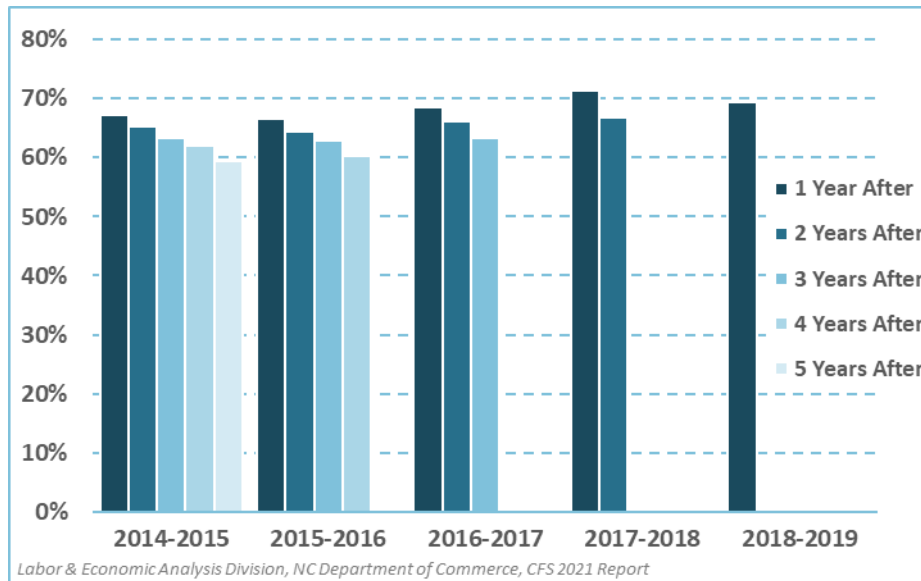
Participants who were not enrolled in the program during any part of the year following enrollment were defined as program exiters, and their subsequent wages and employment outcomes were tracked post exit,

<sup>23</sup> North Carolina Community College System, <http://www.nccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog>

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.

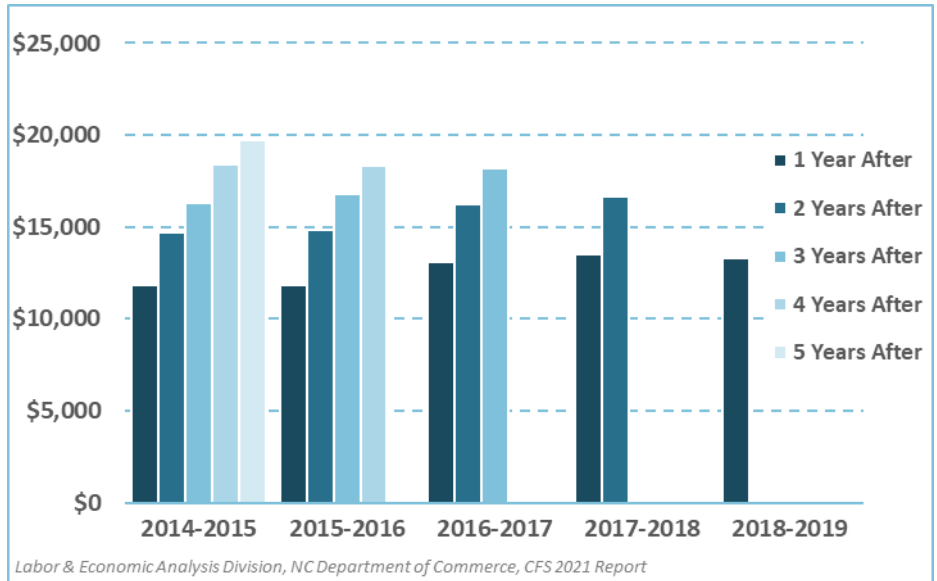
One-year post-exit employment fluctuated across the five cohorts, ranging from 67% in 2014-2015 and 2015-2016 to 71% in 2017-2018 (Figure 46 and Table 12). One-year post-exit median wages ranged across all cohorts from \$11,837 for the 2014-2015 cohort to \$13,499 for the 2017-2018 cohort.

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



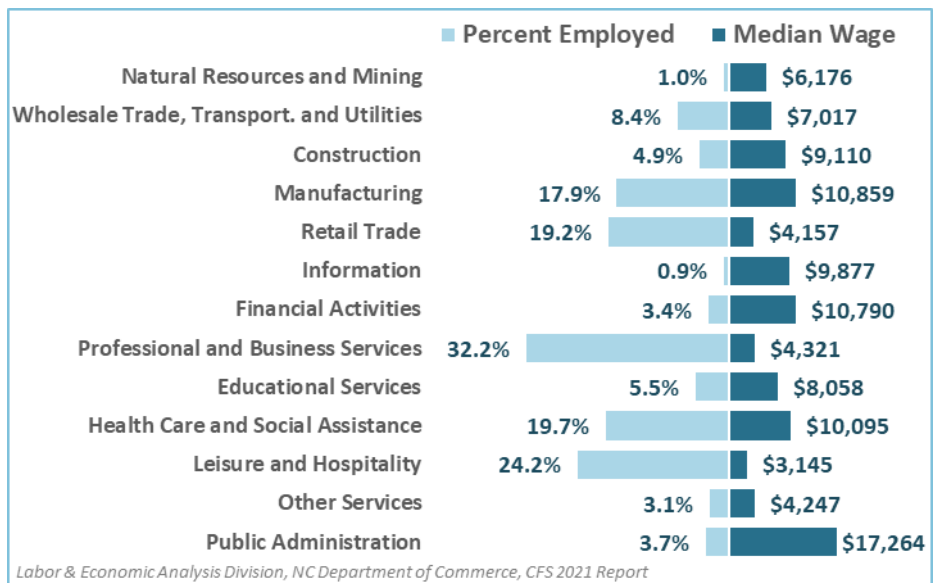
Longer term post-exit employment and wage measures indicate that five years after exit, 59% of the 2014-2015 exiting cohort were employed in North Carolina. Post-exit employment rates were relatively stable across cohorts for a given post-exit year, while the median post-exit wage increased over time across all cohorts. The 2014-2015 exiters experienced a growth in median wages from \$11,837 one year after exit to \$16,320 in year three and \$19,758 at the five-year mark, while the 2016-2017 exiters saw median wages grow from \$13,100 one year after exit to \$18,162 in year three.

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



In looking at one-year outcomes by industry for the most recent cohort of exiters (2018-2019 program year), the largest group (32%) 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 \$4,321 (Figure 48 and Table 12). Other top industries employing this cohort one-year post exit include Leisure and Hospitality (24%), Health Care and Social Assistance (20%), Retail Trade (19%), and Manufacturing (18%). Of these, Manufacturing was associated with the highest median annual wage (\$10,859).

**Figure 48. 2018-2019 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 fluctuations 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 decreases while the median wages rise. The median wage of HRD program participants who exited in the 2014-2015 program year was \$11,837 one year after exit, rising to \$19,758 five years after exit. By contrast, the 2019 median annual wage in North Carolina for all unemployment insurance-covered workers was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>24</sup>

### » Summary and Recommendations

The post-exit outcomes of NCCCS HRD program participants trended in a favorable direction for the first four years investigated, but for the fifth year results were mixed. For the 2018-2019 cohort, participation (35,565) and one-year post-exit median wages (\$13,306) were lower than for the previous cohort but exiters in public higher education, employment, or training program was higher than other cohorts at 57%.

The rate of subsequent enrollment by HRD exiters in public higher education programs remained relatively consistent over the study period from 22% to 24%. 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.

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<sup>24</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**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, 2021 Report										
Human Resources Development Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		64,116	56,841	49,973	41,003	35,565	64,116	56,841	49,973	41,003	64,116	56,841	49,973	64,116	56,841	64,116
Exiters		56,315	49,911	44,551	36,564	32,037	56,315	49,911	44,551	36,564	56,315	49,911	44,551	56,315	49,911	56,315
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exiters Employed In North Carolina	N	37,804	33,232	30,547	26,076	22,206	36,761	32,151	29,436	24,464	35,695	31,373	28,213	34,868	30,049	33,403
	%	67%	67%	69%	71%	69%	65%	64%	66%	67%	63%	63%	63%	62%	60%	59%
Exiters' Wages in North Carolina	Mean	\$15,017	\$15,290	\$16,638	\$16,933	\$16,942	\$17,765	\$18,215	\$19,853	\$19,926	\$19,436	\$20,125	\$21,580	\$21,216	\$21,665	\$22,591
	Median	\$11,837	\$11,867	\$13,100	\$13,499	\$13,306	\$14,701	\$14,863	\$16,217	\$16,664	\$16,320	\$16,814	\$18,162	\$18,403	\$18,362	\$19,758
Exiters Enrolled in NC Public Higher Education	N	13,053	11,144	9,785	8,509	7,743	10,281	8,637	7,482	6,053	8,267	6,908	5,916	6,805	5,498	5,550
	%	23%	22%	22%	23%	24%	18%	17%	17%	17%	15%	14%	13%	12%	11%	10%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N	28,678	23,595	20,834	20,603	18,169	19,719	17,435	17,438	17,505	16,734	16,405	16,762	16,324	16,020	16,467
	%	51%	47%	47%	56%	57%	35%	35%	39%	48%	30%	33%	38%	29%	32%	29%
Exiters Enrolled or Employed in NC	N	45,063	39,011	35,380	30,692	26,436	41,169	36,079	33,264	28,629	39,173	34,828	31,942	38,113	33,605	36,935
	%	80%	78%	79%	84%	83%	73%	72%	75%	78%	70%	70%	72%	68%	67%	66%
<b>Exiters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.9%	1.1%	0.8%	0.8%	1.0%	1.0%	1.0%	0.8%	0.7%	0.9%	0.9%	0.7%	0.8%	0.8%	0.8%
Wholesale Trade, Transport. and Utilities		7.1%	7.6%	7.8%	7.7%	8.4%	7.9%	7.8%	8.2%	8.6%	8.3%	8.2%	9.1%	8.4%	8.9%	9.0%
Construction		5.6%	5.8%	5.6%	5.5%	4.9%	6.0%	6.2%	5.8%	5.2%	6.1%	6.5%	5.6%	6.2%	6.2%	5.9%
Manufacturing		19.8%	19.5%	19.1%	17.7%	17.9%	20.8%	20.3%	20.2%	18.1%	21.7%	21.5%	20.5%	22.6%	21.5%	22.5%
Retail Trade		18.2%	18.6%	17.9%	18.5%	19.2%	17.5%	17.1%	16.8%	17.5%	16.6%	16.2%	16.3%	16.1%	15.7%	16.3%
Information		0.7%	0.8%	0.9%	1.0%	0.9%	0.8%	0.8%	0.9%	1.0%	0.8%	0.8%	0.9%	0.9%	0.9%	0.9%
Financial Activities		2.7%	2.8%	3.1%	3.5%	3.4%	2.9%	3.0%	3.4%	3.6%	2.8%	3.1%	3.3%	2.9%	3.3%	3.1%
Professional and Business Services		37.9%	37.3%	36.1%	35.6%	32.2%	32.7%	32.1%	31.4%	29.5%	30.3%	30.6%	28.4%	29.6%	28.0%	27.1%
Educational Services		4.3%	4.7%	5.0%	5.6%	5.5%	4.4%	4.5%	4.9%	5.3%	4.5%	4.5%	4.8%	4.5%	4.5%	4.6%
Health Care and Social Assistance		15.7%	16.2%	18.5%	19.7%	19.7%	16.4%	16.9%	18.5%	20.2%	16.8%	17.3%	18.8%	17.1%	17.5%	17.7%
Leisure and Hospitality		22.8%	23.9%	23.9%	24.2%	24.2%	21.5%	22.0%	21.5%	22.0%	20.5%	21.2%	20.1%	19.5%	20.2%	18.8%
Other Services		2.9%	2.8%	3.2%	3.2%	3.1%	2.9%	2.9%	3.1%	3.0%	3.0%	3.2%	3.1%	2.9%	2.9%	2.9%
Public Administration		2.8%	3.2%	3.8%	4.0%	3.7%	3.0%	3.3%	3.9%	4.4%	3.4%	3.5%	4.2%	3.6%	3.7%	3.8%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$3,616	\$2,968	\$4,151	\$3,540	\$6,176	\$3,685	\$3,853	\$4,134	\$5,376	\$5,202	\$4,983	\$7,401	\$7,010	\$7,835	\$9,725
Wholesale Trade, Transport. and Utilities		\$7,373	\$7,088	\$7,398	\$8,276	\$7,017	\$10,319	\$11,003	\$11,438	\$11,103	\$10,960	\$11,293	\$13,251	\$13,404	\$12,537	\$14,344
Construction		\$7,913	\$8,412	\$7,743	\$8,815	\$9,110	\$9,607	\$10,244	\$11,196	\$13,885	\$10,624	\$11,406	\$13,945	\$12,796	\$15,081	\$17,144
Manufacturing		\$12,595	\$10,557	\$12,644	\$11,821	\$10,859	\$16,613	\$15,965	\$17,994	\$17,452	\$19,284	\$17,431	\$20,775	\$20,834	\$20,016	\$22,365
Retail Trade		\$4,438	\$4,189	\$4,185	\$4,042	\$4,157	\$5,365	\$5,423	\$5,377	\$4,948	\$6,040	\$5,736	\$5,976	\$7,164	\$5,981	\$7,178
Information		\$6,649	\$7,812	\$5,976	\$7,609	\$9,877	\$7,799	\$8,894	\$9,333	\$9,925	\$9,080	\$11,228	\$12,802	\$10,245	\$13,808	\$14,189
Financial Activities		\$9,281	\$8,646	\$10,776	\$10,593	\$10,790	\$12,467	\$13,044	\$13,144	\$17,058	\$14,713	\$15,790	\$18,982	\$16,078	\$18,756	\$18,651
Professional and Business Services		\$4,423	\$3,983	\$4,473	\$4,615	\$4,321	\$4,387	\$4,155	\$4,808	\$4,901	\$4,632	\$4,567	\$5,075	\$4,731	\$5,000	\$4,846
Educational Services		\$6,486	\$6,870	\$7,428	\$8,475	\$8,058	\$9,108	\$11,160	\$10,254	\$13,277	\$11,100	\$12,946	\$12,958	\$13,223	\$15,071	\$15,500
Health Care and Social Assistance		\$8,522	\$8,953	\$9,444	\$10,142	\$10,095	\$11,401	\$11,889	\$12,671	\$13,495	\$13,192	\$13,419	\$15,206	\$14,784	\$15,065	\$16,205
Leisure and Hospitality		\$3,074	\$2,975	\$3,015	\$3,162	\$3,145	\$3,601	\$3,524	\$3,562	\$3,647	\$3,845	\$3,550	\$3,861	\$3,894	\$3,860	\$4,150
Other Services		\$3,869	\$3,836	\$4,027	\$4,272	\$4,247	\$5,175	\$5,202	\$4,913	\$5,935	\$5,570	\$5,065	\$6,474	\$6,417	\$6,425	\$7,800
Public Administration		\$11,848	\$11,068	\$17,040	\$15,288	\$17,264	\$19,059	\$18,587	\$26,143	\$24,344	\$23,944	\$23,990	\$29,418	\$26,040	\$28,566	\$28,801
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$8,252	\$6,558	\$9,912	\$9,536	\$10,866	\$9,188	\$9,047	\$11,263	\$12,169	\$11,159	\$11,288	\$14,325	\$13,188	\$13,827	\$15,774
Wholesale Trade, Transport. and Utilities		\$12,164	\$12,913	\$13,752	\$14,199	\$12,778	\$15,711	\$16,529	\$17,549	\$17,585	\$16,767	\$17,886	\$19,202	\$18,804	\$19,040	\$19,811
Construction		\$12,925	\$14,180	\$13,472	\$14,346	\$14,747	\$15,300	\$16,381	\$17,251	\$18,588	\$16,689	\$18,188	\$19,236	\$18,858	\$20,290	\$21,714
Manufacturing		\$16,338	\$15,207	\$17,175	\$16,763	\$15,890	\$19,527	\$19,379	\$21,603	\$20,655	\$21,371	\$21,125	\$23,036	\$22,975	\$22,477	\$23,975
Retail Trade		\$7,625	\$7,596	\$7,660	\$7,940	\$7,913	\$9,306	\$9,357	\$9,550	\$9,617	\$10,342	\$10,257	\$10,771	\$11,552	\$11,024	\$12,159
Information		\$13,189	\$13,659	\$14,048	\$16,002	\$19,961	\$16,694	\$17,880	\$19,234	\$19,551	\$18,401	\$19,647	\$22,897	\$22,062	\$21,691	\$25,190
Financial Activities		\$15,042	\$14,333	\$17,590	\$16,193	\$18,019	\$18,208	\$18,271	\$20,896	\$22,141	\$19,598	\$20,849	\$24,298	\$21,414	\$23,830	\$23,456
Professional and Business Services		\$8,038	\$7,967	\$8,839	\$8,772	\$9,000	\$8,761	\$9,173	\$9,938	\$10,237	\$9,328	\$9,808	\$11,005	\$9,768	\$10,905	\$10,492
Educational Services		\$10,744	\$11,464	\$11,810	\$12,850	\$13,429	\$13,411	\$15,211	\$14,637	\$16,734	\$15,305	\$17,085	\$17,122	\$16,778	\$18,679	\$18,324
Health Care and Social Assistance		\$11,717	\$12,343	\$12,625	\$13,565	\$13,778	\$14,244	\$14,818	\$15,847	\$16,554	\$15,755	\$16,426	\$18,039	\$17,663	\$18,438	\$19,179
Leisure and Hospitality		\$5,516	\$5,490	\$5,627	\$5,850	\$5,769	\$6,437	\$6,401	\$6,660	\$6,564	\$6,974	\$6,912	\$7,042	\$7,441	\$7,258	\$7,588
Other Services		\$8,241	\$7,942	\$8,928	\$8,816	\$9,267	\$10,243	\$9,962	\$10,652	\$11,871	\$10,601	\$10,469	\$11,896	\$11,959	\$12,507	\$12,853
Public Administration		\$15,920	\$15,432	\$18,395	\$18,476	\$19,630	\$20,268	\$20,058	\$23,144	\$23,244	\$22,844	\$23,047	\$25,879	\$24,525	\$26,147	\$26,970

\* 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).<sup>25</sup> 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 obtainment and employment and includes both the Adult High School (AHS) and the High School Equivalency (HSE) Diploma programs.<sup>26</sup> 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.<sup>27</sup>

## » 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).

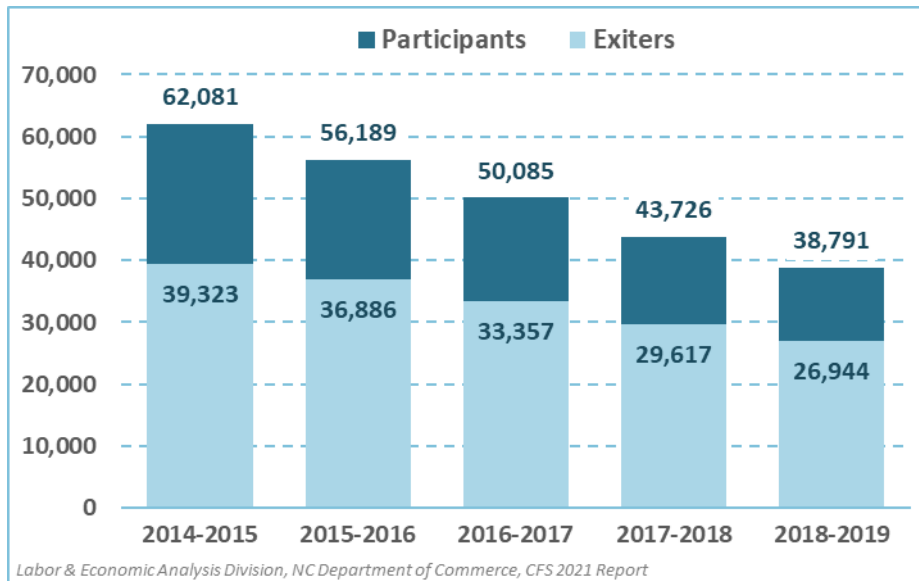
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<sup>25</sup> North Carolina Community College System, <http://www.nccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog>

<sup>26</sup> <http://www.nccommunitycolleges.edu/college-and-career-readiness/adult-secondary-education>

<sup>27</sup> <http://www.nccommunitycolleges.edu/academic-programs/nc-community-college-system-catalog>

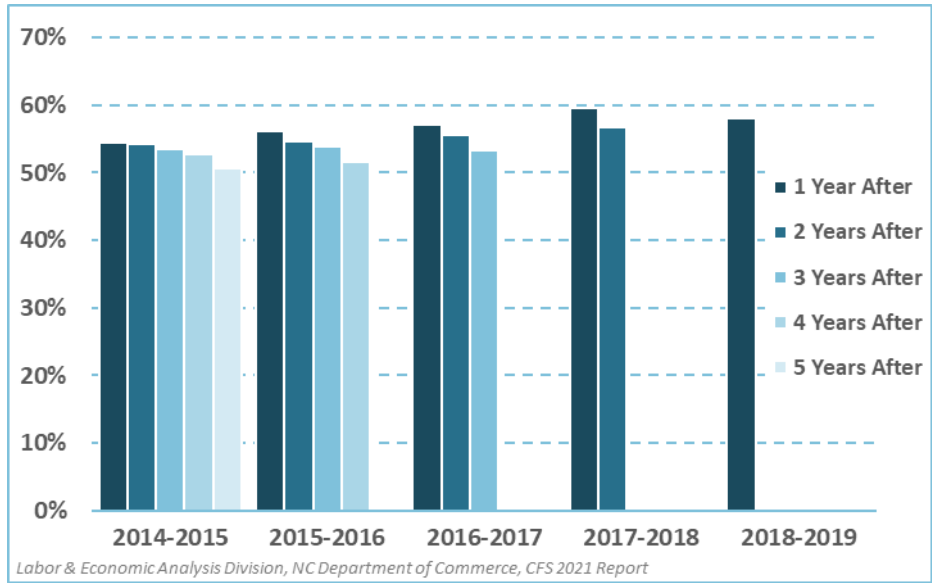
**Figure 49. NCCCS Basic Skills Program Participants and Exiters by Program Year**



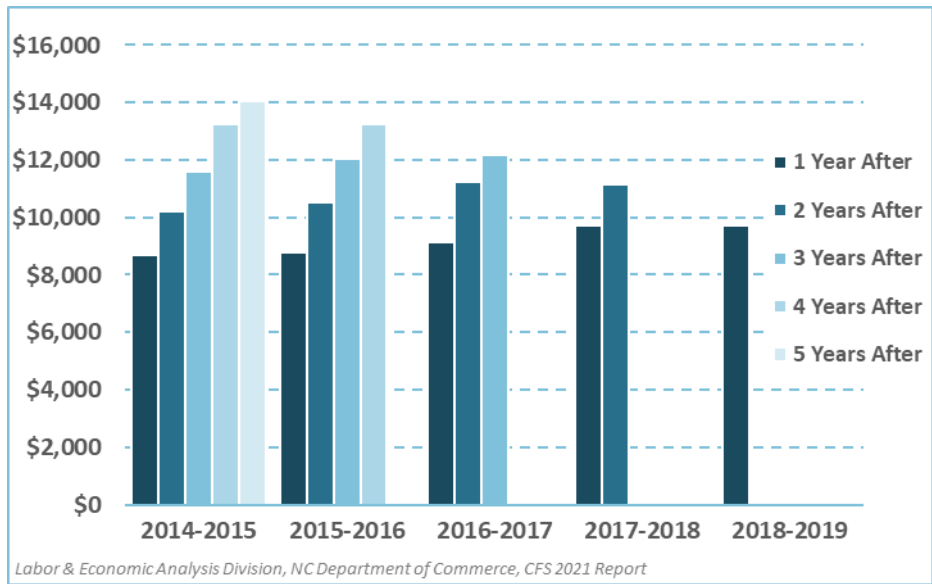
Figures 50 and 51 show the employment and wage outcomes for Basic Skills program exiters by program year (also see Table 13). Short-term outcomes at one year after program exit show increases in employment rates and median wages across cohorts. One-year post-exit employment increased from 54% for the 2014-2015 exiting cohort to 60% for the 2017-2018 cohort then slightly declined to 58% for the 2018-2019 program year cohort. One-year post-completion median wages for Basic Skills program completers rose from \$8,701 for the 2014-2015 cohort to \$9,706 for program year 2018-2019 exiters.

Longer-term post-exit employment measures show decreasing employment rates within the same cohort and increasing employment rates across different cohorts (Figure 50), trends that are common to most workforce training and education programs. Longer-term wage outcomes show wage increases both within and across cohorts (Figure 51). While the median post-completion wages were fairly low, all showed significant and regular increases over time for all cohorts. For all cohorts, median wages rose by 15% to 23% between the first and second post-exit years. In the later post-exit years, median wages for all cohorts kept growing at annual rates ranging from 6% to 10%.

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

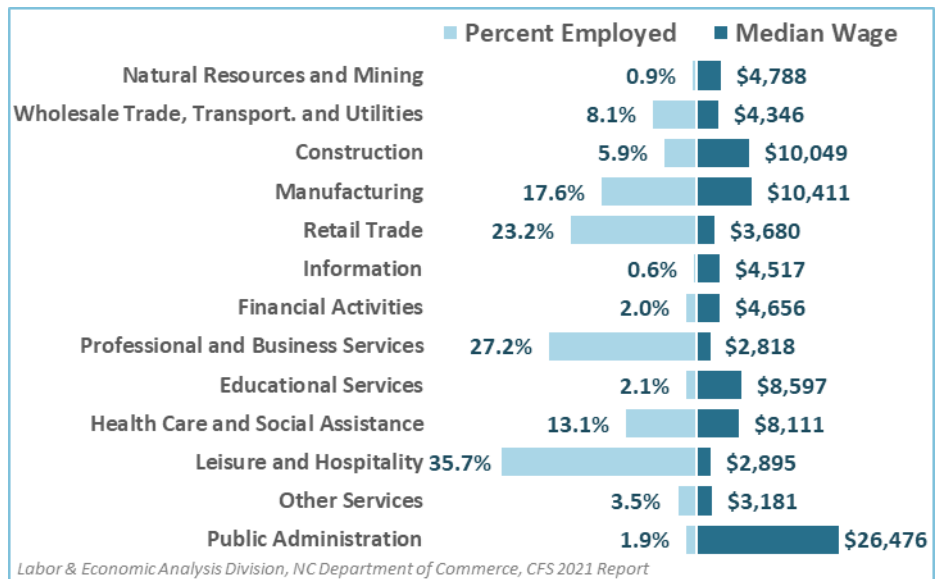


**Figure 51. Median Wage of NCCCS Basic Skills Program Exiters in North Carolina, by Year of Exit**



Further analysis of one-year outcomes for the 2018-2019 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 (27%), which may include temporary help agencies, paying median annual wages of \$2,895 and \$2,818, respectively. While these are among the lowest-paid median wages for this cohort, they often represent temporary or part-time employment. The Public Administration sector provided the highest median wage (\$26,476) but employed few Basic Skills exiters (1.9). The next highest-paid industries were Manufacturing and Construction, paying \$10,411 and \$10,049 in median annual wages, respectively.

**Figure 52. 2018-2019 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 stable employment rates across Basic Skills program year cohorts and participants 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 2014-2015 program year cohort was \$8,701 one year after exit, increasing to \$14,041 by year five. By contrast, the 2019 median annual wage in North Carolina for all unemployment insurance-covered workers was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>28</sup> 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 program exiters in further education is a positive outcome for the program. Between 9% and 16% of the participants were enrolled in additional public higher educational programs during the five years after exiting the program. This indicates that some individuals are continuing in additional skill development after gaining their high school credential.

As previously noted, part of the requirement of 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.

<sup>28</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

**Table 13. NCCCS Basic Skills Program Participants and Exitters, Showing Outcomes One Through Five Years After Exit, Overall and By Industry**

North Carolina Community College System						Common Follow-up System: Evaluative Measures, 2021 Report										
Basic Skills Program						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		62,081	56,189	50,085	43,726	38,791	62,081	56,189	50,085	43,726	62,081	56,189	50,085	62,081	56,189	62,081
Exitters		39,323	36,886	33,357	29,617	26,944	39,323	36,886	33,357	29,617	39,323	36,886	33,357	39,323	36,886	39,323
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exitters Employed In North Carolina	N %	21,431 54%	20,705 56%	19,023 57%	17,656 60%	15,655 58%	21,329 54%	20,180 55%	18,537 56%	16,790 57%	21,005 53%	19,863 54%	17,806 53%	20,769 53%	19,045 52%	19,937 51%
Exitters' Wages in North Carolina	Mean Median	\$12,475 \$8,701	\$12,673 \$8,781	\$13,204 \$9,144	\$13,851 \$9,704	\$14,135 \$9,706	\$14,032 \$10,191	\$14,265 \$10,516	\$15,190 \$11,241	\$15,377 \$11,156	\$15,442 \$11,603	\$16,047 \$12,041	\$16,415 \$12,187	\$17,064 \$13,251	\$17,208 \$13,258	\$17,987 \$14,041
Exitters Enrolled in NC Public Higher Education	N %	5,034 13%	4,870 13%	4,052 12%	4,003 14%	3,634 13%	6,221 16%	5,677 15%	4,975 15%	4,308 15%	5,224 13%	4,851 13%	3,956 12%	4,386 11%	3,785 10%	3,418 9%
Exitters Enrolled in NC Public Education, Employment, or Training Program	N %	10,130 26%	9,353 25%	8,299 25%	8,868 30%	8,621 32%	10,213 26%	9,441 26%	9,201 28%	9,340 32%	9,047 23%	9,204 25%	8,828 26%	8,944 23%	8,941 24%	8,833 22%
Exitters Enrolled or Employed in NC	N %	24,590 63%	23,442 64%	21,296 64%	20,117 68%	18,082 67%	24,254 62%	22,798 62%	21,012 63%	19,456 66%	23,372 59%	22,317 61%	20,208 61%	22,957 58%	21,358 58%	22,118 56%
<b>Exitters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		1.1%	1.1%	0.9%	1.0%	0.9%	1.2%	1.1%	0.9%	0.8%	1.1%	1.1%	0.8%	1.0%	0.9%	0.8%
Wholesale Trade, Transport. and Utilities		6.1%	6.7%	7.3%	7.7%	8.1%	7.3%	7.4%	8.2%	9.1%	7.9%	8.0%	9.2%	8.7%	8.7%	9.6%
Construction		6.1%	6.6%	6.2%	6.7%	5.9%	7.0%	7.0%	6.9%	6.8%	7.6%	7.6%	7.0%	7.5%	7.3%	7.6%
Manufacturing		14.8%	15.3%	15.9%	15.9%	17.6%	16.0%	16.2%	17.7%	16.6%	17.1%	17.7%	17.9%	17.9%	17.8%	17.8%
Retail Trade		22.0%	22.2%	22.7%	23.1%	23.2%	21.5%	21.6%	22.4%	22.0%	20.7%	20.5%	21.6%	20.0%	20.1%	19.1%
Information		0.6%	0.5%	0.7%	0.7%	0.6%	0.7%	0.6%	0.7%	0.7%	0.8%	0.7%	0.7%	0.8%	0.6%	0.8%
Financial Activities		2.2%	2.2%	2.0%	2.1%	2.0%	2.2%	2.4%	2.3%	2.1%	2.3%	2.6%	2.6%	2.6%	2.6%	2.6%
Professional and Business Services		31.7%	31.2%	30.4%	30.3%	27.2%	31.4%	30.5%	30.6%	27.7%	30.9%	30.8%	28.0%	30.9%	28.4%	28.5%
Educational Services		2.1%	2.1%	2.2%	2.3%	2.1%	2.4%	2.4%	2.3%	2.5%	2.4%	2.4%	2.4%	2.5%	2.4%	2.5%
Health Care and Social Assistance		11.0%	12.3%	11.9%	12.4%	13.1%	12.0%	13.1%	12.4%	13.4%	12.6%	13.6%	13.3%	13.2%	14.2%	13.9%
Leisure and Hospitality		35.7%	36.3%	37.0%	37.5%	35.7%	33.2%	33.8%	34.5%	33.6%	31.1%	31.9%	31.2%	30.5%	29.4%	28.1%
Other Services		3.4%	3.4%	3.7%	4.0%	3.5%	3.5%	3.6%	4.0%	4.2%	3.6%	3.8%	3.8%	3.7%	3.9%	3.6%
Public Administration		1.4%	1.6%	1.5%	1.9%	1.9%	1.6%	1.7%	1.7%	2.1%	1.8%	2.0%	1.8%	1.9%	2.2%	2.2%
<b>Exitters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$2,069	\$3,100	\$2,776	\$3,183	\$4,788	\$3,239	\$4,509	\$4,201	\$4,097	\$4,121	\$5,880	\$6,335	\$5,215	\$9,028	\$8,057
Wholesale Trade, Transport. and Utilities		\$6,121	\$5,672	\$5,642	\$5,416	\$4,346	\$6,481	\$5,852	\$6,092	\$6,205	\$8,483	\$7,214	\$6,535	\$9,318	\$9,552	\$9,778
Construction		\$6,951	\$7,010	\$7,657	\$9,080	\$10,049	\$7,960	\$8,898	\$8,664	\$12,017	\$8,848	\$10,217	\$12,461	\$11,917	\$13,393	\$13,321
Manufacturing		\$9,953	\$8,512	\$9,551	\$8,956	\$10,411	\$10,547	\$10,917	\$11,106	\$10,427	\$11,938	\$11,770	\$13,502	\$13,680	\$13,782	\$15,695
Retail Trade		\$3,856	\$3,567	\$3,830	\$3,378	\$3,680	\$4,076	\$4,085	\$4,427	\$4,138	\$4,513	\$4,894	\$4,882	\$5,001	\$4,996	\$5,713
Information		\$3,202	\$5,192	\$3,607	\$6,222	\$4,517	\$2,830	\$5,388	\$3,260	\$6,469	\$4,768	\$4,996	\$7,242	\$8,774	\$7,328	\$6,707
Financial Activities		\$4,000	\$6,586	\$4,862	\$5,418	\$4,656	\$6,855	\$6,132	\$5,989	\$6,611	\$7,003	\$8,202	\$7,549	\$7,662	\$12,898	\$10,275
Professional and Business Services		\$2,759	\$2,677	\$2,776	\$2,758	\$2,818	\$2,795	\$2,810	\$2,983	\$2,977	\$2,992	\$3,068	\$3,150	\$3,241	\$3,235	\$3,529
Educational Services		\$9,583	\$10,197	\$7,872	\$9,559	\$8,597	\$9,627	\$11,001	\$9,260	\$12,001	\$11,555	\$12,549	\$10,273	\$11,271	\$15,841	\$14,017
Health Care and Social Assistance		\$7,479	\$6,308	\$6,712	\$8,306	\$8,111	\$8,092	\$7,191	\$8,379	\$9,560	\$9,451	\$7,977	\$8,864	\$10,197	\$9,450	\$11,536
Leisure and Hospitality		\$2,996	\$3,110	\$2,955	\$3,019	\$2,895	\$3,237	\$3,177	\$3,145	\$3,211	\$3,524	\$3,514	\$3,495	\$3,732	\$3,673	\$3,750
Other Services		\$3,323	\$3,386	\$2,805	\$3,356	\$3,181	\$4,375	\$3,629	\$3,500	\$4,417	\$4,577	\$3,788	\$4,294	\$5,076	\$4,688	\$6,479
Public Administration		\$18,269	\$16,579	\$17,136	\$21,495	\$26,476	\$21,349	\$25,000	\$22,142	\$28,506	\$25,436	\$27,262	\$28,579	\$26,232	\$29,183	\$26,397
<b>Exitters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$8,758	\$8,654	\$8,310	\$9,160	\$10,800	\$9,370	\$11,005	\$10,180	\$10,813	\$10,637	\$11,836	\$13,601	\$12,701	\$15,012	\$16,344
Wholesale Trade, Transport. and Utilities		\$12,027	\$11,584	\$11,916	\$12,069	\$11,176	\$12,651	\$12,927	\$13,168	\$13,261	\$14,141	\$14,306	\$13,745	\$15,388	\$15,725	\$16,166
Construction		\$12,977	\$12,526	\$13,808	\$16,065	\$16,328	\$14,395	\$14,777	\$15,765	\$18,437	\$15,401	\$16,606	\$18,379	\$18,553	\$18,990	\$19,421
Manufacturing		\$15,139	\$14,750	\$15,684	\$15,142	\$16,110	\$16,017	\$16,417	\$16,983	\$16,479	\$17,189	\$17,190	\$18,206	\$18,578	\$18,326	\$19,629
Retail Trade		\$7,239	\$7,054	\$7,375	\$7,030	\$7,527	\$7,978	\$8,125	\$8,493	\$8,222	\$8,651	\$9,614	\$9,315	\$9,618	\$10,178	\$10,605
Information		\$9,429	\$17,647	\$10,494	\$11,778	\$12,362	\$10,627	\$12,956	\$11,126	\$13,428	\$11,254	\$13,426	\$16,092	\$14,521	\$16,215	\$13,714
Financial Activities		\$10,126	\$12,528	\$14,283	\$12,755	\$13,076	\$12,904	\$12,909	\$15,652	\$14,264	\$13,845	\$15,006	\$18,437	\$14,224	\$18,503	\$16,716
Professional and Business Services		\$6,037	\$5,907	\$6,018	\$6,088	\$6,733	\$6,362	\$6,453	\$6,722	\$6,828	\$6,829	\$7,086	\$7,321	\$7,281	\$7,626	\$8,011
Educational Services		\$12,759	\$13,481	\$12,234	\$12,788	\$13,466	\$12,834	\$14,124	\$13,622	\$15,318	\$14,560	\$15,667	\$14,656	\$14,955	\$18,132	\$16,436
Health Care and Social Assistance		\$11,363	\$10,426	\$10,825	\$12,385	\$12,674	\$12,034	\$11,298	\$12,468	\$13,670	\$13,053	\$12,601	\$13,573	\$14,263	\$14,007	\$15,354
Leisure and Hospitality		\$5,575	\$5,711	\$5,623	\$5,817	\$5,549	\$6,064	\$6,099	\$6,244	\$6,099	\$6,681	\$6,621	\$6,553	\$7,183	\$6,839	\$7,129
Other Services		\$8,052	\$7,351	\$7,189	\$8,199	\$7,251	\$9,406	\$8,065	\$8,122	\$9,246	\$10,084	\$8,586	\$9,586	\$11,166	\$9,836	\$11,974
Public Administration		\$21,685	\$20,863	\$19,906	\$22,610	\$25,016	\$23,446	\$24,225	\$22,623	\$25,964	\$25,051	\$25,902	\$26,457	\$26,230	\$26,871	\$27,020

\* 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, or 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 must be paid by the company for all training hours.<sup>29</sup>

## » Customized Training Program Outcomes

As shown in Figure 53, the number of participants in CT programs decreased from program years 2014-2015 to 2017-2018 before increasing in the 2018-2019 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.

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 fluctuated from 89% for the 2015-2016 cohort to 94% for exiters of the 2017-2018 and 2018-2019 program years. Over time the employment rate declined slowly for all cohorts, a pattern common to almost all workforce training and education programs. For example, employment rates in North Carolina for the 2014-2015 exiting cohort decreased from 90% one year after exit to 77% five years after exit (Figure 54).

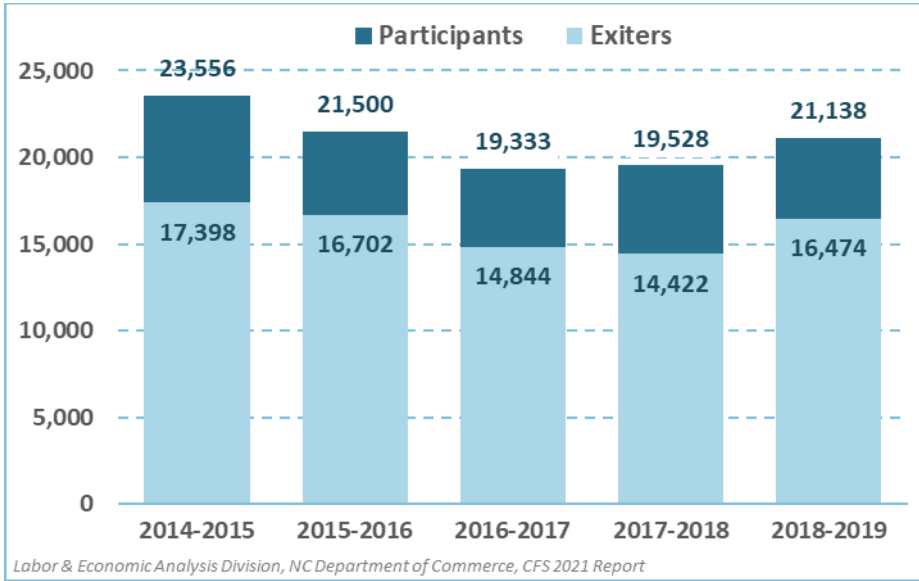
Median wages one year after exit fluctuated from a low of \$42,481 for the 2014-2015 cohort to a high of \$46,734 for the 2015-2016 program year. Longer-term wage outcomes, however, generally showed moderate wage growth within cohorts. For the 2014-2015 cohort, wages rose each year after exit for 4 years.

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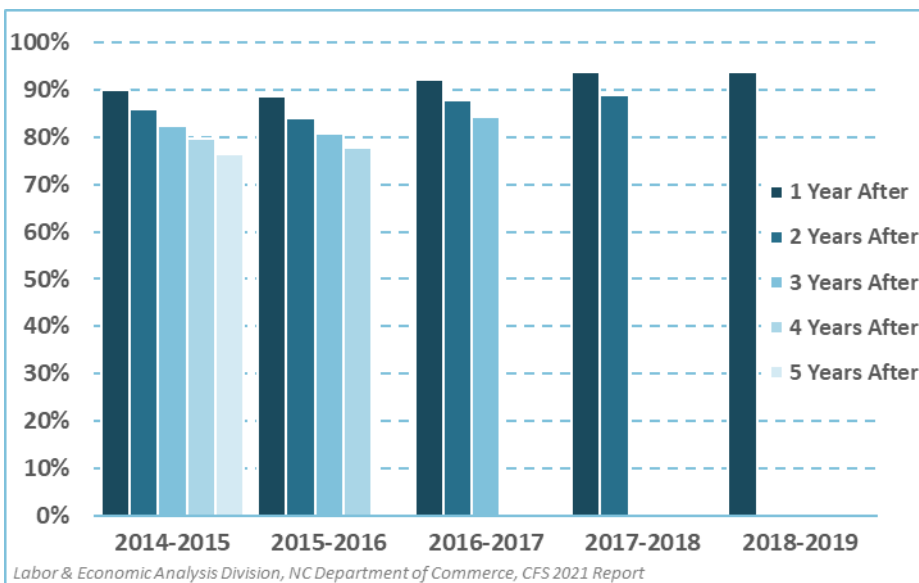
<sup>29</sup> Customized Training Program Expenditures Report, [http://www.nccommunitycolleges.edu/sites/default/files/state-board/program/prog\\_08\\_-\\_customized\\_training\\_program\\_expenditures\\_report\\_2016-2017.pdf](http://www.nccommunitycolleges.edu/sites/default/files/state-board/program/prog_08_-_customized_training_program_expenditures_report_2016-2017.pdf)



**Figure 53. NCCCS Customized Training Program Participants and Exiters by Program Year**



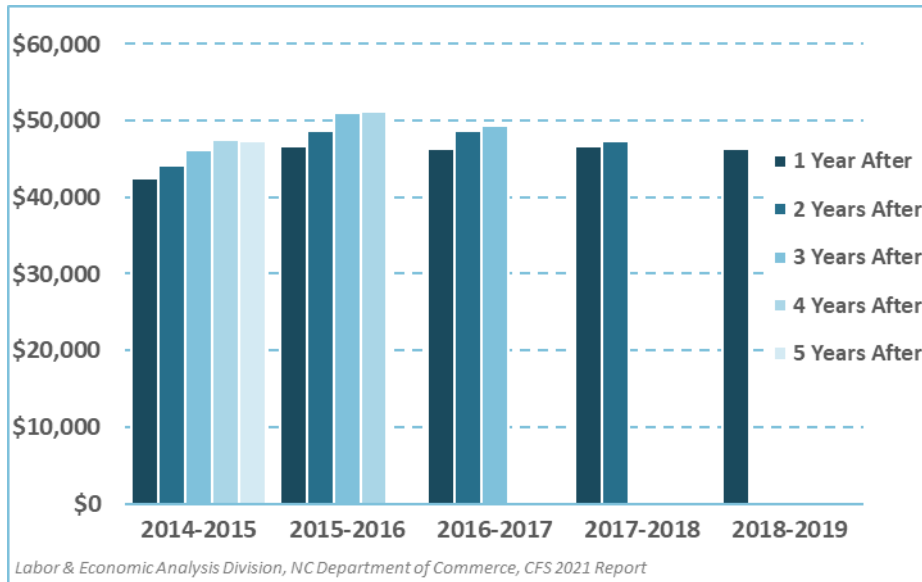
**Figure 54. Percentage of NCCCS Customized Training Program Exiters Employed in North Carolina After Exit, by Year of Exit**



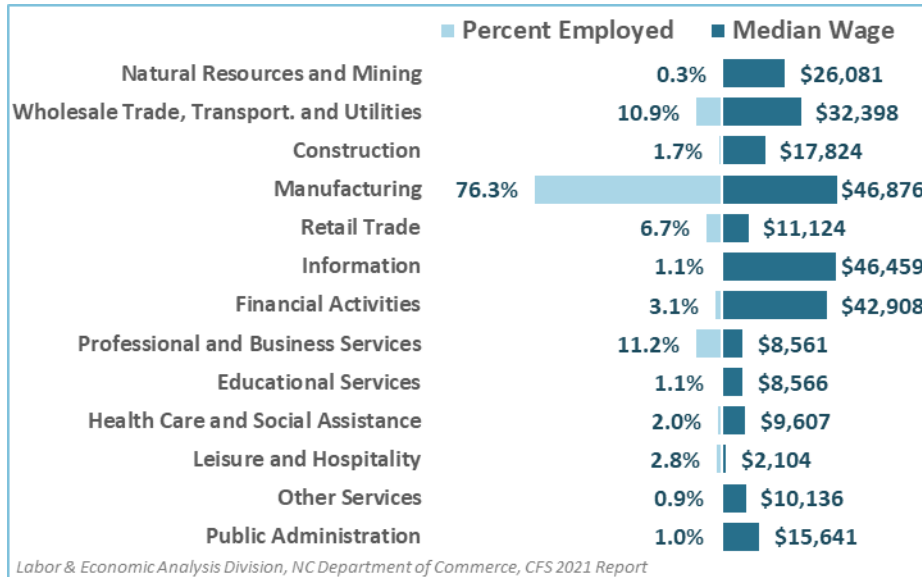
The post-participation industries of employment for CT program exiters indicate that Manufacturing was the dominant employment industry, with both the largest number of employees and the highest wages with 76% of employment and a median wage of \$46,876 for the 2018-2019 cohort. As shown in Figure 56, Manufacturing was distantly followed by Professional and Business Services industry (11%; median wage of \$8,561); and Wholesale Trade, Transport, and Utilities (11%; median wage of \$32,398). Both three- and five-year post-exit industry employment rates reflect a similar trend (see Table 14). It’s interesting to note that Financial Activities paid the most for the 2014-2015 and 2015-2016 cohorts with median wages in the \$55,000 range in the first year. By contrast, the 2019 median annual wage in North Carolina for all unemployment insurance-covered

workers was \$29,465, while the 2019 federal poverty guideline was \$12,490 for a one-person household and \$16,910 for a two-person household.<sup>30</sup>

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



**Figure 56. 2018-2019 NCCCS Customized Training Exiters One Year After Exit: Percentage Employed and Median Wage by Industry**



<sup>30</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey). Source of poverty guidelines: U.S. Department of Health & Human Services, <https://aspe.hhs.gov/2019-poverty-guidelines>

## » Summary and Recommendations

The outcome measures for Customized Training program exiters indicate fairly high post-exit employment rates (ranging from 89% to 94% in the first year after exit) as compared to other workforce training programs examined in this report. While the annual median wages had slight fluctuations across program years, CT program exiters earned 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, as is common with most workforce programs. 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 17% five years after exit for the 2014-2015 cohort. However, employment retention rate for the program completers remains at 77% 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 alignment of North Carolina's workforce and economic development efforts.

**Table 14. NCCCS Customized Training Participants and Exiters, Outcomes One Through Five Years After Exit, Overall and By Industry**

North Carolina Community College System Customized Training Program						Common Follow-up System: Evaluative Measures, 2021 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2016-2017
Participants		23,556	21,500	19,333	19,528	21,138	23,556	21,500	19,333	19,528	23,556	21,500	19,333	23,556	21,500	23,556
Exiters		17,398	16,702	14,844	14,422	16,474	17,398	16,702	14,844	14,422	17,398	16,702	14,844	17,398	16,702	17,398
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exiters Employed in North Carolina		N 15,672 90%	14,792 89%	13,686 92%	13,541 94%	15,440 94%	14,935 86%	14,057 84%	13,053 88%	12,807 89%	14,334 82%	13,481 81%	12,528 84%	13,857 80%	12,982 78%	13,323 77%
Exiters' Wages in North Carolina		Mean \$47,745 \$42,481	\$52,995 \$46,734	\$52,041 \$46,350	\$53,048 \$46,634	\$52,271 \$46,343	\$49,736 \$44,145	\$55,545 \$48,615	\$53,773 \$48,629	\$53,539 \$47,269	\$51,565 \$46,124	\$57,171 \$51,057	\$54,947 \$49,337	\$52,950 \$47,518	\$57,747 \$51,162	\$53,665 \$47,342
Exiters Enrolled in NC Public Higher Education		N 1,864 11%	1,865 11%	1,836 12%	1,447 10%	1,588 10%	3,939 23%	3,427 21%	3,510 24%	2,795 19%	2,990 17%	2,755 16%	2,818 19%	2,882 17%	2,250 13%	2,118 12%
Exiters Enrolled in NC Public Education, Employment, or Training Program		N 3,355 19%	3,177 19%	2,853 19%	2,866 20%	3,633 22%	5,086 29%	4,480 27%	4,595 31%	4,424 31%	4,083 23%	4,099 25%	4,254 29%	4,284 25%	3,948 24%	3,861 22%
Exiters Enrolled or Employed in NC		N 15,828 91%	14,930 89%	13,757 93%	13,605 94%	15,516 94%	15,208 87%	14,322 86%	13,229 89%	13,070 91%	14,590 84%	13,806 83%	12,778 86%	14,126 81%	13,344 80%	13,640 78%
<b>Exiters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.3%	0.5%	0.6%	0.6%	0.3%	0.4%	0.6%	0.5%	0.7%	0.4%	0.5%	0.4%	0.4%	0.5%	0.4%
Wholesale Trade, Transport. and Utilities		10.3%	11.1%	10.4%	10.4%	10.9%	10.0%	11.0%	9.8%	10.9%	10.5%	9.6%	9.8%	10.1%	10.3%	10.6%
Construction		2.0%	2.2%	1.7%	2.0%	1.7%	2.6%	2.6%	2.1%	2.4%	2.7%	2.7%	2.1%	3.0%	3.1%	3.0%
Manufacturing		72.6%	73.7%	79.4%	75.4%	76.3%	69.0%	72.0%	75.4%	71.9%	67.6%	70.8%	73.4%	65.8%	68.4%	64.1%
Retail Trade		4.1%	4.5%	3.8%	6.4%	6.7%	4.7%	5.3%	4.7%	6.4%	5.2%	6.6%	5.1%	6.1%	7.0%	6.2%
Information		0.3%	0.6%	1.2%	1.0%	1.1%	0.4%	0.6%	0.9%	1.0%	0.5%	0.6%	0.8%	0.5%	0.5%	0.6%
Financial Activities		5.3%	4.0%	1.3%	1.3%	3.1%	5.0%	3.7%	1.5%	1.5%	4.8%	3.7%	1.8%	4.7%	3.6%	4.7%
Professional and Business Services		16.6%	14.8%	12.5%	14.7%	11.2%	15.0%	13.8%	12.8%	13.9%	14.4%	13.5%	12.0%	14.1%	12.3%	13.0%
Educational Services		1.0%	1.1%	0.9%	1.3%	1.1%	1.3%	1.2%	1.1%	1.3%	1.6%	1.4%	1.2%	1.9%	1.5%	2.1%
Health Care and Social Assistance		2.4%	2.0%	2.1%	2.1%	2.0%	2.8%	2.2%	2.5%	2.5%	3.1%	2.6%	3.0%	3.4%	3.0%	3.8%
Leisure and Hospitality		3.0%	2.9%	2.5%	2.9%	2.8%	3.3%	2.9%	2.6%	3.4%	3.2%	2.9%	2.8%	3.3%	3.2%	3.2%
Other Services		1.2%	1.2%	0.9%	1.6%	0.9%	1.3%	1.2%	1.1%	1.6%	1.3%	1.4%	1.1%	1.6%	1.5%	1.6%
Public Administration		0.9%	0.7%	0.7%	0.8%	1.0%	1.1%	0.9%	0.9%	1.0%	1.2%	1.3%	1.2%	1.6%	1.5%	1.8%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$11,321	\$43,383	\$22,743	\$37,827	\$26,081	\$16,064	\$38,733	\$30,832	\$40,672	\$25,706	\$42,763	\$33,104	\$31,386	\$53,760	\$31,119
Wholesale Trade, Transport. and Utilities		\$28,840	\$30,182	\$34,772	\$34,245	\$32,398	\$34,174	\$29,964	\$37,512	\$36,241	\$34,759	\$34,350	\$38,505	\$36,664	\$34,496	\$36,203
Construction		\$16,866	\$19,927	\$9,677	\$16,747	\$17,824	\$19,133	\$21,223	\$14,795	\$20,178	\$22,836	\$25,392	\$23,532	\$23,174	\$29,739	\$24,170
Manufacturing		\$43,229	\$48,602	\$46,444	\$47,496	\$46,876	\$45,777	\$49,891	\$49,948	\$49,246	\$47,777	\$53,892	\$51,227	\$49,731	\$54,699	\$49,926
Retail Trade		\$4,598	\$6,397	\$5,088	\$11,741	\$11,124	\$6,012	\$9,961	\$9,448	\$13,760	\$8,697	\$15,817	\$10,777	\$13,608	\$17,138	\$14,962
Information		\$8,633	\$24,974	\$35,708	\$42,882	\$46,459	\$13,646	\$28,189	\$37,140	\$42,906	\$25,630	\$25,867	\$40,471	\$33,549	\$35,261	\$47,383
Financial Activities		\$55,175	\$55,845	\$30,393	\$23,394	\$42,908	\$55,022	\$58,277	\$35,071	\$33,330	\$53,723	\$62,700	\$33,604	\$60,190	\$66,196	\$61,172
Professional and Business Services		\$12,620	\$10,832	\$11,177	\$11,778	\$8,561	\$14,003	\$14,540	\$12,533	\$14,076	\$15,024	\$13,601	\$14,272	\$15,709	\$15,070	\$17,689
Educational Services		\$7,214	\$6,435	\$4,712	\$7,438	\$8,566	\$10,110	\$10,437	\$8,280	\$13,704	\$8,774	\$8,160	\$17,785	\$10,788	\$13,860	\$15,233
Health Care and Social Assistance		\$12,022	\$14,627	\$19,043	\$10,366	\$9,607	\$15,005	\$18,698	\$24,766	\$15,769	\$18,839	\$17,763	\$23,281	\$22,750	\$19,204	\$21,402
Leisure and Hospitality		\$2,363	\$2,738	\$2,604	\$2,229	\$2,104	\$3,656	\$3,043	\$2,799	\$3,125	\$3,447	\$3,457	\$3,195	\$3,673	\$3,750	\$4,359
Other Services		\$10,953	\$5,886	\$8,492	\$16,728	\$10,136	\$17,342	\$4,064	\$10,612	\$18,640	\$14,500	\$5,215	\$12,762	\$13,092	\$7,264	\$16,931
Public Administration		\$10,613	\$9,706	\$10,400	\$10,731	\$15,641	\$17,521	\$17,024	\$15,611	\$21,303	\$24,448	\$22,932	\$23,306	\$28,047	\$28,668	\$32,403
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$32,447	\$39,593	\$28,025	\$48,677	\$36,282	\$36,668	\$38,048	\$34,794	\$49,906	\$39,483	\$41,528	\$37,589	\$45,685	\$49,481	\$38,933
Wholesale Trade, Transport. and Utilities		\$34,605	\$35,976	\$39,385	\$40,815	\$36,960	\$39,028	\$34,843	\$42,010	\$42,404	\$38,971	\$38,770	\$42,951	\$41,503	\$39,693	\$42,105
Construction		\$22,945	\$26,849	\$17,362	\$24,714	\$26,838	\$24,288	\$28,715	\$22,807	\$26,076	\$27,951	\$32,410	\$28,493	\$29,292	\$32,547	\$30,037
Manufacturing		\$46,934	\$53,129	\$50,841	\$52,412	\$51,832	\$49,681	\$54,284	\$54,214	\$53,865	\$51,713	\$57,969	\$55,645	\$53,565	\$59,031	\$54,481
Retail Trade		\$11,715	\$14,896	\$12,068	\$26,266	\$22,094	\$13,365	\$16,548	\$19,203	\$25,259	\$14,825	\$23,159	\$21,754	\$20,973	\$24,317	\$21,956
Information		\$17,931	\$34,941	\$39,882	\$46,886	\$54,205	\$25,381	\$38,623	\$41,908	\$51,760	\$36,200	\$37,370	\$48,852	\$47,823	\$43,559	\$58,284
Financial Activities		\$60,626	\$60,633	\$35,115	\$37,108	\$46,186	\$59,710	\$62,703	\$39,394	\$42,102	\$63,263	\$71,102	\$42,134	\$68,500	\$73,919	\$69,403
Professional and Business Services		\$23,672	\$25,017	\$28,594	\$25,613	\$21,941	\$25,949	\$31,566	\$29,516	\$28,999	\$28,012	\$31,881	\$33,556	\$29,891	\$37,582	\$35,011
Educational Services		\$16,886	\$14,959	\$14,988	\$19,953	\$18,303	\$17,245	\$18,208	\$17,419	\$23,200	\$18,101	\$18,123	\$21,373	\$18,716	\$20,921	\$20,215
Health Care and Social Assistance		\$22,606	\$25,435	\$26,178	\$15,355	\$16,505	\$24,415	\$27,797	\$29,018	\$19,879	\$27,058	\$26,819	\$30,339	\$29,049	\$28,531	\$29,141
Leisure and Hospitality		\$5,696	\$5,762	\$5,540	\$6,634	\$6,049	\$7,430	\$7,335	\$6,820	\$7,709	\$7,976	\$8,840	\$8,434	\$8,656	\$9,373	\$9,229
Other Services		\$20,483	\$12,417	\$19,545	\$21,310	\$19,790	\$23,927	\$13,661	\$21,490	\$24,328	\$22,790	\$14,476	\$26,440	\$21,331	\$16,962	\$25,130
Public Administration		\$18,971	\$17,886	\$16,797	\$17,218	\$20,514	\$21,851	\$22,655	\$20,456	\$23,939	\$25,129	\$24,700	\$23,925	\$26,921	\$27,147	\$30,500

\* 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.<sup>31</sup> 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

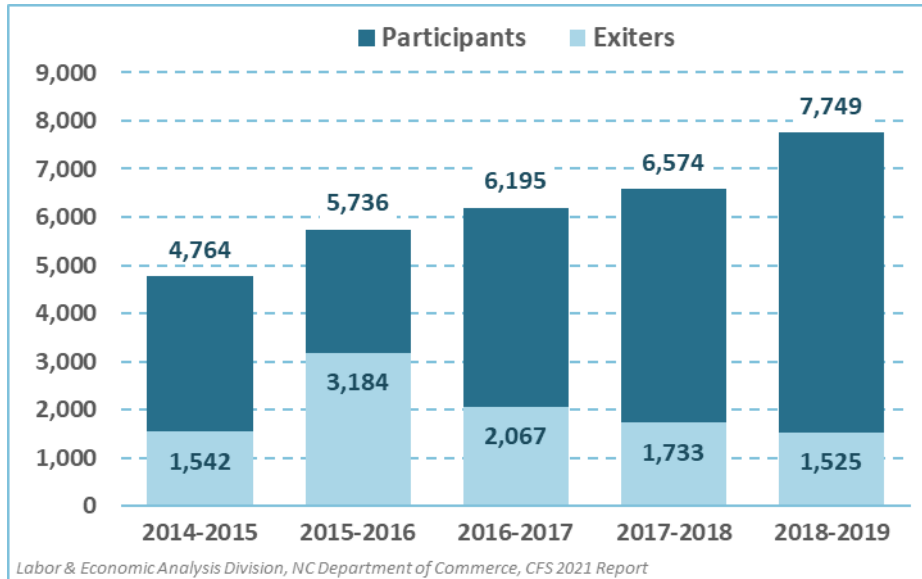
As shown in Figure 57, participation in the ApprenticeshipNC program steadily increased throughout the study period. This recent growth was likely achieved in part by eliminating, in 2014-2015, the fee requirement for program participation in addition to efforts to expand outreach through regional partnerships with colleges, workforce boards, and employers.

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<sup>31</sup> See NC Session Law 2017-57, Senate Bill 257, Section 15.13. (a), <http://www.ncoah.com/rules/rrc/meetings/Agendas/August%202017/04%20NCAC%2022.pdf>

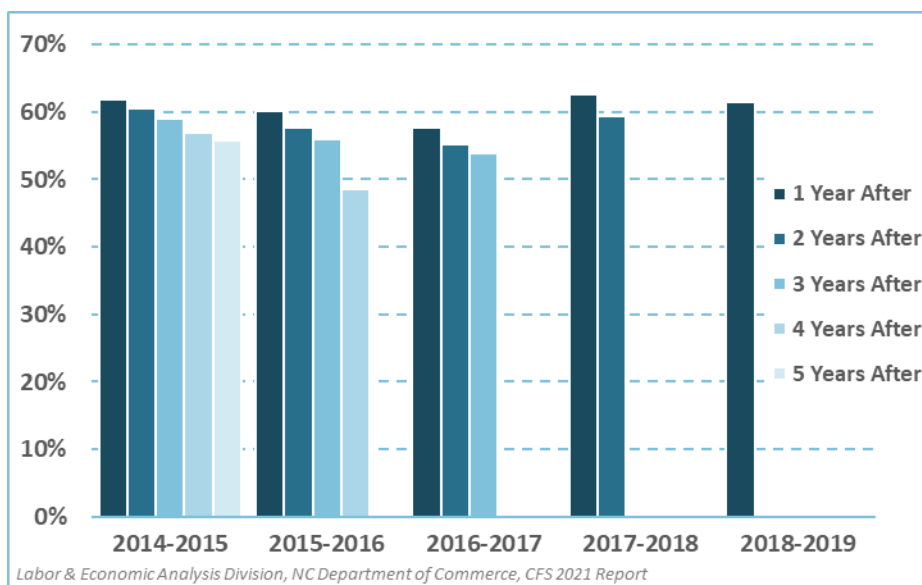
An important aspect of the apprenticeship program is that participation statistics can only be fully measured by a voluntarily shared SSN, thus numbers produced from the CFS may differ from those reported by the US Department of Labor.

**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.

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

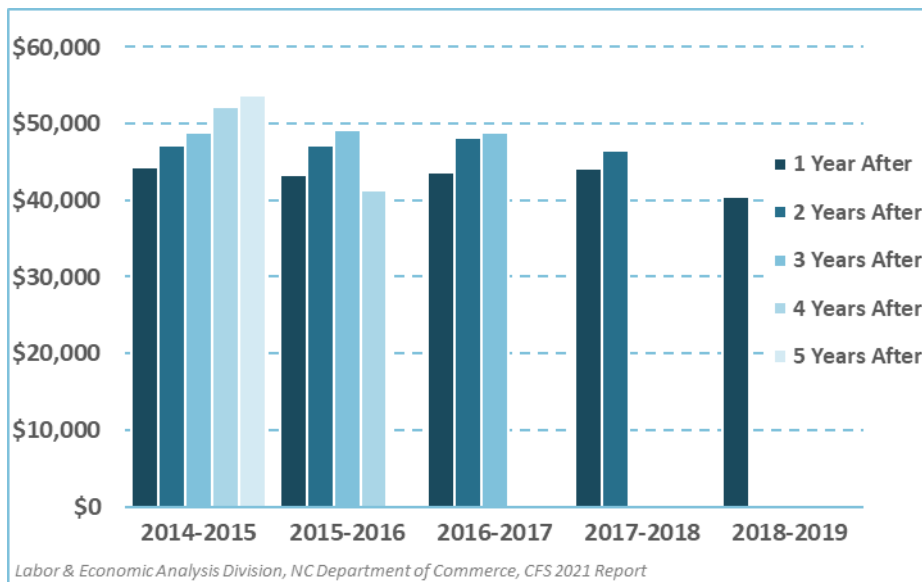


One-year post-exit employment rates, shown in Figure 58 and Table 15, fluctuated between a low of 58% for exiters in the 2016-2017 program year to a high of 63% for exiters in the 2017-2018 program year. When the

exiting cohorts were followed over multiple years, the cohort employment rates generally showed slight declines (Figure 58). Of the 2014-2015 exiters, 62% were employed in the first year after exit while 56% were employed after year five.

As shown in Figure 59, one-year post-exit median wages remained fairly steady for the first four cohorts, ranging from \$40,453 for the 2018-2019 program year to \$44,240 for 2014-2015. With a single exception (a drop in wages for the 2015-2016 cohort 4 years post-exit), wages generally increased over time within each cohort. For the 2014-2015 cohort, post-exit wages increased by 21%, from \$44,240 one year after exit to \$53,724 five years after exit. This is well above \$29,465, the 2019 median annual wage in North Carolina for all wage earners covered by unemployment insurance<sup>32</sup>.

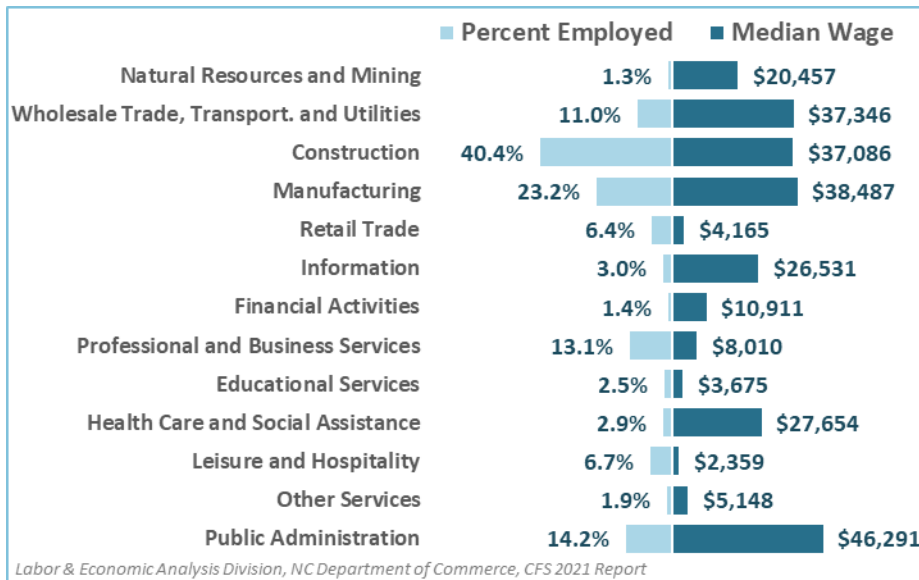
**Figure 59. Median Wage of Apprenticeship Program Exiters in North Carolina, by Year of Exit**



Analysis of industries of employment for program exiters shows that for all cohorts, Construction was the largest employer, followed by Manufacturing, Public Administration, Wholesale Trade Transport and Utilities, and Professional and Business Services. Figure 60 shows that one year after exit, 40% of the 2018-2019 cohort exiters were employed in Construction, followed by 23% in Manufacturing, 14% in Public Administration, 13% in Professional and Business Services, and 11% in Wholesale Trade Transport and Utilities.

<sup>32</sup> Source of wage data: Common Follow-up System. For comparison, the 2019 median annual wage in North Carolina for all wage-earning residents was \$33,205 (American Community Survey).

**Figure 60. 2018-2019 Apprenticeship Exiters One Year After Exit: Percentage Employed and Median Wage by Industry**



Post-exit participation in public higher education (Table 15) for the completers of the Apprenticeship program was among the highest for exiters of any workforce program. One-year post exit enrollment in public higher education ranged from 21% for the 2014-2015 and 2015-2016 cohorts to 26% for the 2017-2018 cohort.

### » Summary and Recommendations

Overall, outcome measures for Apprenticeship program exiters show increasing participation and fluctuations in both short- and long-term employment and wage outcomes.

As is common in most workforce and education programs, 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. Median wages were some of the highest wage outcomes of any workforce development programs examined in this report. This is not unexpected, as participants are employed during program participation and thus have already built a relationship with an employer prior to program completion in addition to achieving skill gains through the training. It is worth mentioning that eliminating the fee requirement for program participation in 2014-2015 likely had a significant positive effect on 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 Apprenticeship Program						Common Follow-up System: Evaluative Measures, 2021 Report Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Participants		4,764	5,736	6,195	6,574	7,749	4,764	5,736	6,195	6,574	4,764	5,736	6,195	4,764	5,736	4,764
Exiters		1,542	3,184	2,067	1,733	1,525	1,542	3,184	2,067	1,733	1,542	3,184	2,067	1,542	3,184	1,542
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Exiters Employed in North Carolina	N %	955 62%	1,914 60%	1,194 58%	1,084 63%	937 61%	933 61%	1,837 58%	1,141 55%	1,030 59%	910 59%	1,785 56%	1,114 54%	877 57%	1,549 49%	861 56%
Exiters' Wages in North Carolina	Mean Median	\$46,040 \$44,240	\$47,010 \$43,400	\$47,060 \$43,722	\$47,282 \$44,090	\$43,693 \$40,453	\$50,042 \$47,124	\$51,956 \$47,123	\$52,071 \$48,179	\$48,924 \$46,472	\$53,313 \$48,825	\$53,358 \$49,187	\$52,314 \$48,874	\$56,532 \$52,188	\$45,386 \$41,311	\$58,000 \$53,724
Exiters Enrolled in NC Public Higher Education	N %	320 21%	681 21%	468 23%	457 26%	361 24%	267 17%	591 19%	413 20%	368 21%	237 15%	502 16%	338 16%	208 13%	287 9%	185 12%
Exiters Enrolled in NC Public Education, Employment, or Training Program	N %	389 25%	822 26%	545 26%	566 33%	479 31%	327 21%	721 23%	503 24%	507 29%	299 19%	672 21%	467 23%	274 18%	423 13%	273 18%
Exiters Enrolled or Employed in NC	N %	1,029 67%	2,028 64%	1,282 62%	1,155 67%	1,018 67%	985 64%	1,933 61%	1,217 59%	1,106 64%	950 62%	1,875 59%	1,177 57%	917 59%	1,292 41%	908 59%
<b>Exiters' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	1.3%	*	*	*	*	*	0.6%	*	*	0.6%	*
Wholesale Trade, Transport. and Utilities		13.0%	12.2%	11.4%	9.4%	11.0%	13.4%	11.4%	10.7%	11.3%	13.7%	12.0%	11.5%	14.6%	9.7%	14.5%
Construction		28.5%	28.5%	27.8%	30.4%	40.4%	28.4%	27.7%	27.1%	27.3%	27.8%	27.2%	25.4%	29.6%	23.4%	26.9%
Manufacturing		21.3%	23.3%	26.3%	20.8%	23.2%	22.1%	23.1%	27.7%	22.2%	21.9%	22.9%	26.8%	22.5%	19.1%	23.2%
Retail Trade		9.3%	5.5%	6.2%	5.7%	6.4%	9.0%	5.3%	5.9%	6.6%	9.8%	5.3%	5.6%	8.6%	4.1%	7.5%
Information		6.6%	6.7%	3.8%	4.4%	3.0%	6.3%	6.9%	4.2%	4.8%	6.5%	6.1%	3.6%	5.9%	5.6%	5.7%
Financial Activities		*	1.5%	2.0%	1.8%	1.4%	*	2.1%	2.4%	1.7%	1.8%	2.1%	2.3%	1.5%	1.7%	1.6%
Professional and Business Services		12.1%	15.0%	14.7%	12.8%	13.1%	11.8%	13.6%	14.1%	13.2%	12.1%	12.6%	13.1%	12.0%	11.0%	11.6%
Educational Services		1.8%	2.1%	2.0%	3.0%	2.5%	2.0%	2.9%	2.7%	3.2%	2.5%	3.5%	2.8%	2.1%	2.4%	1.7%
Health Care and Social Assistance		1.2%	1.6%	2.1%	2.4%	2.9%	1.4%	2.4%	3.2%	2.4%	1.8%	2.4%	2.5%	1.9%	1.9%	2.8%
Leisure and Hospitality		4.8%	4.3%	5.1%	5.1%	6.7%	5.0%	4.1%	5.0%	5.2%	4.6%	4.0%	5.0%	4.3%	3.0%	4.4%
Other Services		1.5%	1.6%	1.5%	1.6%	1.9%	1.8%	2.0%	2.0%	2.1%	2.0%	2.2%	2.3%	2.2%	1.7%	1.7%
Public Administration		17.7%	22.3%	23.6%	28.9%	14.2%	17.0%	20.6%	21.3%	26.4%	16.4%	19.6%	19.9%	15.6%	16.7%	15.0%
<b>Exiters' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	\$20,457	*	*	*	*	*	\$19,278	*	*	\$15,839	*
Wholesale Trade, Transport. and Utilities		\$61,075	\$42,247	\$40,652	\$42,314	\$37,346	\$68,971	\$48,641	\$48,641	\$39,214	\$75,993	\$41,094	\$28,798	\$80,012	\$43,317	\$85,310
Construction		\$41,097	\$34,640	\$35,527	\$41,802	\$37,086	\$47,011	\$39,518	\$42,769	\$43,390	\$48,487	\$42,461	\$43,369	\$49,795	\$34,006	\$55,269
Manufacturing		\$49,073	\$55,461	\$54,161	\$52,038	\$38,487	\$51,299	\$63,781	\$60,397	\$54,076	\$49,972	\$62,433	\$59,724	\$51,957	\$44,098	\$51,799
Retail Trade		\$9,026	\$4,233	\$4,253	\$4,058	\$4,165	\$15,180	\$4,373	\$5,678	\$5,831	\$12,548	\$8,190	\$14,974	\$16,037	\$10,768	\$13,985
Information		\$45,629	\$40,924	\$40,392	\$43,175	\$26,531	\$47,530	\$41,658	\$35,253	\$36,908	\$48,945	\$46,190	\$42,695	\$51,154	\$44,117	\$57,365
Financial Activities		*	\$5,580	\$4,672	\$12,406	\$10,911	*	\$5,307	\$5,355	\$19,247	\$14,128	\$5,538	\$10,254	\$40,810	\$10,540	\$22,793
Professional and Business Services		\$7,899	\$8,690	\$8,617	\$9,230	\$8,010	\$7,826	\$11,648	\$9,617	\$9,535	\$9,763	\$12,591	\$9,462	\$9,399	\$12,195	\$8,259
Educational Services		\$3,016	\$5,740	\$4,503	\$3,873	\$3,675	\$2,767	\$7,984	\$5,740	\$7,252	\$1,854	\$3,758	\$2,181	\$6,489	\$12,451	\$15,505
Health Care and Social Assistance		\$3,745	\$9,220	\$21,273	\$4,208	\$27,654	\$14,992	\$11,773	\$10,649	\$9,152	\$14,093	\$18,929	\$16,662	\$9,916	\$9,689	\$9,360
Leisure and Hospitality		\$2,023	\$1,627	\$1,654	\$2,273	\$2,359	\$3,461	\$2,755	\$2,754	\$1,942	\$4,150	\$3,796	\$2,682	\$3,628	\$1,637	\$1,677
Other Services		\$3,981	\$5,759	\$3,082	\$7,420	\$5,148	\$12,031	\$12,250	\$11,047	\$9,413	\$8,447	\$19,078	\$13,922	\$7,505	\$25,269	\$27,920
Public Administration		\$41,353	\$41,213	\$40,395	\$42,714	\$46,291	\$44,436	\$45,125	\$45,013	\$45,033	\$47,418	\$48,052	\$46,613	\$51,180	\$41,083	\$52,308
<b>Exiters' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	\$26,272	*	*	*	*	*	\$19,946	*	*	\$22,665	*
Wholesale Trade, Transport. and Utilities		\$59,504	\$54,188	\$51,116	\$53,165	\$53,797	\$65,975	\$62,250	\$56,633	\$49,756	\$72,595	\$56,967	\$48,534	\$73,558	\$59,156	\$78,603
Construction		\$39,471	\$37,360	\$38,316	\$42,674	\$37,353	\$45,852	\$45,210	\$49,193	\$45,371	\$51,815	\$48,802	\$50,351	\$51,831	\$39,045	\$57,433
Manufacturing		\$54,134	\$54,200	\$54,291	\$56,156	\$46,270	\$53,405	\$61,807	\$58,680	\$57,759	\$53,965	\$60,353	\$57,198	\$54,857	\$46,276	\$56,398
Retail Trade		\$18,629	\$9,186	\$9,802	\$10,352	\$7,528	\$21,040	\$13,182	\$15,592	\$11,284	\$21,229	\$16,691	\$18,644	\$23,872	\$20,983	\$23,940
Information		\$41,378	\$37,678	\$34,055	\$39,443	\$29,538	\$44,846	\$38,309	\$31,693	\$33,725	\$44,246	\$41,115	\$36,509	\$49,112	\$42,629	\$52,962
Financial Activities		*	\$11,196	\$7,274	\$14,701	\$15,135	*	\$12,001	\$12,398	\$20,170	\$20,234	\$17,220	\$16,908	\$37,072	\$15,266	\$29,852
Professional and Business Services		\$15,474	\$14,659	\$14,985	\$13,188	\$14,785	\$18,563	\$18,450	\$16,941	\$15,588	\$20,773	\$20,337	\$17,480	\$21,723	\$21,800	\$21,565
Educational Services		\$7,660	\$15,474	\$12,933	\$10,570	\$13,344	\$9,821	\$16,947	\$13,481	\$15,879	\$12,807	\$14,945	\$9,275	\$20,207	\$23,862	\$26,093
Health Care and Social Assistance		\$6,076	\$22,319	\$25,127	\$11,156	\$25,369	\$13,980	\$18,422	\$16,410	\$12,859	\$16,027	\$21,184	\$21,005	\$15,038	\$16,268	\$17,008
Leisure and Hospitality		\$5,690	\$3,560	\$3,633	\$3,454	\$5,389	\$9,200	\$5,052	\$4,343	\$4,535	\$7,894	\$7,471	\$6,494	\$6,792	\$5,561	\$6,853
Other Services		\$15,724	\$16,303	\$11,282	\$13,219	\$16,912	\$22,696	\$24,193	\$18,659	\$17,959	\$21,743	\$24,398	\$17,113	\$28,238	\$30,818	\$41,143
Public Administration		\$40,264	\$40,688	\$39,756	\$40,800	\$42,430	\$43,473	\$45,439	\$44,437	\$43,233	\$46,251	\$48,670	\$45,555	\$49,867	\$40,826	\$51,128

\* 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.<sup>33</sup> Each year, over 50,000 degrees<sup>34</sup> are awarded to students graduating from more than 200 academic degree programs offered by the UNC system.<sup>35</sup> 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.

### » UNC Bachelor's Degree Program Outcomes

As shown in Figure 61, enrollment in bachelor's degree programs showed steady growth during the period studied, with the number of students increasing from 180,960 in the 2014-2015 program year to 190,245 in 2018-2019. 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.

Figures 62 and 63 show employment and wage outcomes at one through five years after graduation, for all graduating cohorts from 2014-2015 to 2018-2019. The rate of employment in North Carolina one year after graduation remained stable across cohorts, ranging from 76% to 77%. The rate at which bachelor's graduates subsequently enrolled in public education, employment, or training programs was also stable, at 17% for all cohorts one year after graduation (Table 16). Wage earnings one year following graduation increased across

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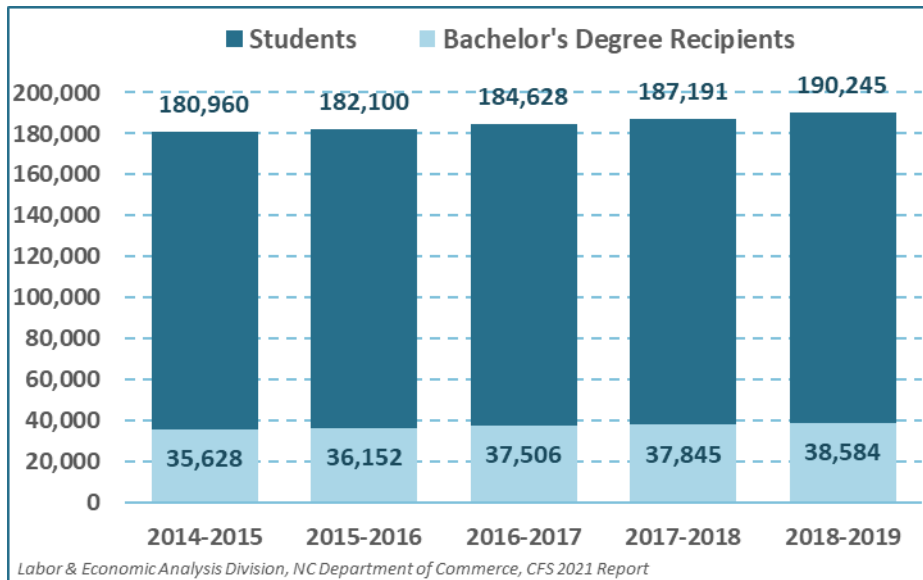
<sup>33</sup> UNC also operates the NC School of Science of Mathematics, a residential high school, and offers a high school program through the UNC School of the Arts. Neither the School of Science and Math nor the high school portion of the School of Arts are included in this report.

<sup>34</sup> The number of degrees conferred reached 60,692 in 2019-2020, <https://www.northcarolina.edu/impact/stats-data-reports/>

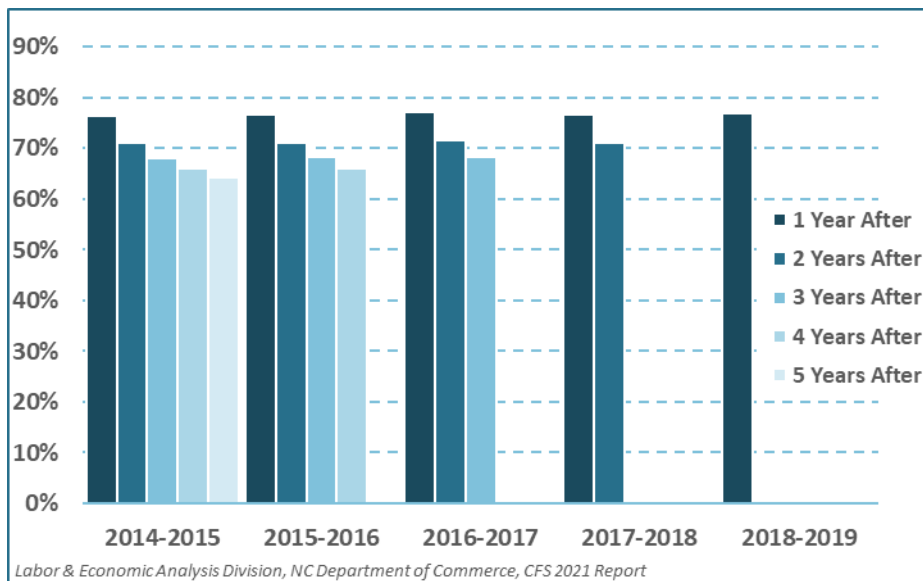
<sup>35</sup> The University of North Carolina System website, <https://www.northcarolina.edu/>

cohorts, with median wage earnings increasing from \$22,038 for the cohort graduating in 2014-2015 to \$25,708 for the 2018-2019 cohort.

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

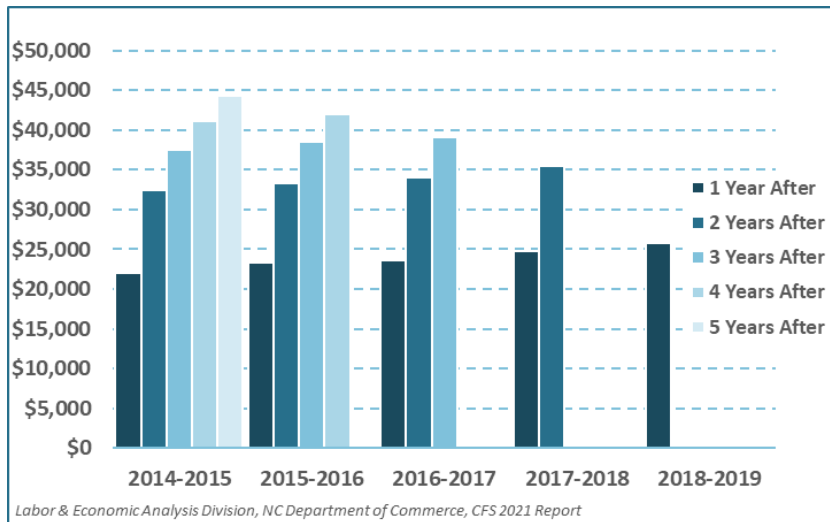


**Figure 62. Percentage of UNC Bachelor's Program Completers Employed in North Carolina After Degree Conferral, by Year of Graduation**



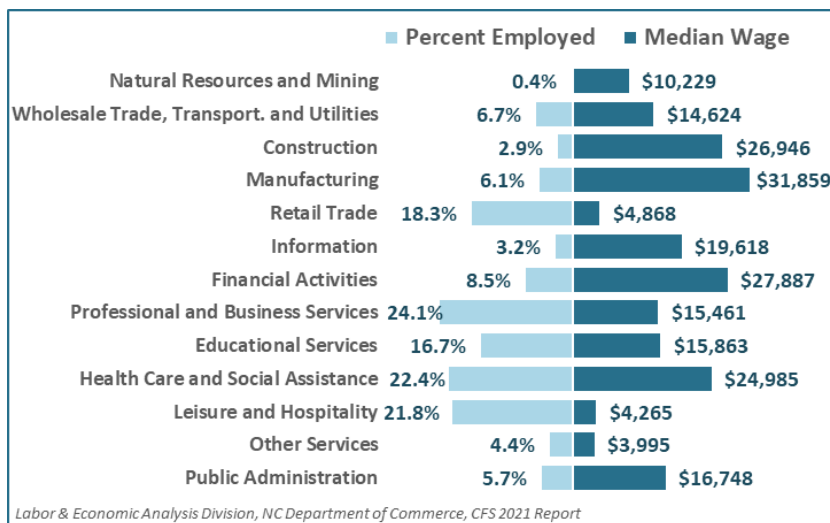
Bachelor's recipients saw their wages increase in each year after graduation, while the share employed in North Carolina declined; for instance, the median wages for 2014-2015 graduates rose from \$22,038 after one year to \$44,251 after five and their employment rate declined from 76% to 64%.

**Figure 63. Median Wage of UNC Bachelor’s Program Completers in North Carolina, by Year of Graduation**



Bachelor’s graduates saw high rates of employment in the low-paying Retail Trade (\$4,868) and Leisure and Hospitality (\$4,265) industries in their first year after graduation, as well as in industries paying relatively higher wages such as Professional and Business Services (\$15,461), Educational Services (\$15,863), and Health Care and Social Assistance (\$24,985) (Figure 64).

**Figure 64. 2018-2019 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, 2018-2019 graduates saw median wages ranging from \$12,761 for area, ethnic, cultural, gender and group studies majors to \$49,874 for engineering majors (see Appendix Table 16). For longer term wage outcomes, five-year post-graduation median earnings for the 2014-2015 graduating class ranged from \$31,053 for visual and performing arts majors to \$79,152 for Computer and Information Services and Support Services majors (see Appendix Table 13).

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

**Table 16. UNC Bachelor's Degree Program Participants and Completers, Outcomes One Through Five Years After Exit, Overall and By Industry**

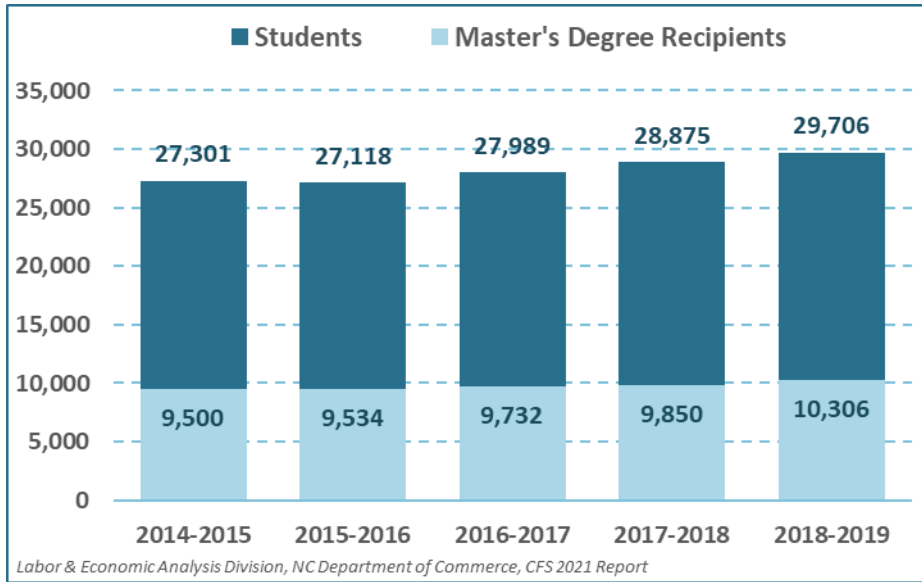
University Of North Carolina System		Common Follow-up System: Evaluative Measures, 2021 Report															
Bachelor's Degree		Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce															
All Programs																	
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015	
Students		180,960	182,100	184,628	187,191	190,245	180,960	182,100	184,628	187,191	180,960	182,100	184,628	180,960	182,100	180,960	
Bachelor's Degree Recipients		35,628	36,152	37,506	37,845	38,584	35,628	36,152	37,506	37,845	35,628	36,152	37,506	35,628	36,152	35,628	
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Bachelor's Degree Recipients Employed in North Carolina	N	27,216	27,713	28,911	29,048	29,668	25,290	25,712	26,878	26,904	24,212	24,661	25,648	23,493	23,831	22,930	
	%	76%	77%	77%	77%	77%	71%	71%	72%	71%	68%	68%	66%	66%	64%		
Bachelor's Degree Recipients' Wages in North Carolina	Mean	\$25,695	\$26,595	\$26,978	\$28,035	\$29,198	\$33,851	\$34,085	\$34,884	\$36,261	\$38,431	\$39,375	\$40,280	\$42,965	\$44,498	\$48,029	
	Median	\$22,038	\$23,302	\$23,583	\$24,818	\$25,708	\$32,461	\$33,289	\$34,042	\$35,402	\$37,457	\$38,514	\$39,138	\$41,085	\$41,936	\$44,251	
Graduates Enrolled in NC Public Higher Education	N	6,080	6,275	6,508	6,456	6,586	6,100	6,179	6,491	6,249	5,197	5,296	5,409	4,518	4,379	3,629	
	%	17%	17%	17%	17%	17%	17%	17%	17%	15%	15%	14%	13%	12%	10%		
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	7,531	7,618	7,966	8,109	8,774	7,135	7,279	8,047	8,561	6,239	6,600	7,530	5,742	6,330	5,479	
	%	21%	21%	21%	21%	23%	20%	20%	21%	23%	18%	18%	20%	16%	18%	15%	
Graduates Enrolled or Employed in NC	N	28,432	28,910	30,097	30,279	31,044	26,446	26,880	28,017	28,247	25,185	25,640	26,763	24,288	24,794	23,683	
	%	80%	80%	80%	80%	80%	74%	74%	75%	75%	71%	71%	71%	68%	69%	66%	
<b>Graduates' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		0.3%	0.3%	0.3%	0.4%	0.4%	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	
Wholesale Trade, Transport. and Utilities		5.8%	6.2%	6.2%	6.2%	6.7%	5.9%	6.3%	6.4%	6.5%	6.1%	6.4%	6.8%	6.3%	6.6%	6.6%	
Construction		2.6%	2.6%	2.6%	2.7%	2.9%	2.5%	2.6%	2.8%	2.9%	2.7%	2.9%	2.8%	2.9%	3.0%	2.9%	
Manufacturing		5.7%	5.8%	6.0%	6.2%	6.1%	6.2%	6.5%	6.6%	6.5%	6.7%	7.2%	6.7%	7.1%	7.2%	7.1%	
Retail Trade		20.3%	19.6%	19.2%	18.5%	18.3%	14.7%	14.1%	13.5%	13.0%	11.9%	11.4%	11.1%	10.1%	9.7%	9.0%	
Information		3.4%	3.6%	3.5%	3.5%	3.2%	3.7%	3.9%	3.8%	3.7%	3.8%	3.9%	3.6%	3.7%	3.8%	3.7%	
Financial Activities		8.8%	8.5%	8.2%	8.3%	8.5%	10.1%	9.5%	9.3%	9.5%	10.3%	9.8%	9.8%	10.2%	10.1%	10.6%	
Professional and Business Services		24.4%	24.3%	24.1%	25.1%	24.1%	23.1%	23.5%	23.5%	23.7%	22.5%	22.9%	22.8%	22.3%	22.3%	21.6%	
Educational Services		19.9%	19.6%	19.7%	17.7%	16.7%	20.1%	19.8%	17.8%	16.8%	20.5%	18.3%	17.6%	19.2%	17.6%	18.7%	
Health Care and Social Assistance		21.3%	21.9%	22.3%	22.8%	22.4%	22.3%	22.3%	23.4%	23.3%	22.2%	23.3%	23.7%	23.0%	23.3%	23.2%	
Leisure and Hospitality		22.0%	21.8%	22.9%	22.3%	21.8%	15.0%	15.0%	15.2%	14.7%	12.3%	12.3%	12.0%	10.8%	10.3%	9.1%	
Other Services		4.5%	4.6%	4.3%	4.5%	4.4%	3.5%	3.6%	3.7%	3.6%	3.2%	3.2%	3.1%	2.9%	2.8%	2.7%	
Public Administration		5.7%	5.8%	5.7%	5.7%	5.7%	6.6%	6.6%	6.4%	6.2%	6.9%	6.9%	6.7%	7.2%	7.1%	7.2%	
<b>Graduates' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$12,112	\$6,497	\$8,810	\$12,000	\$10,229	\$18,288	\$11,948	\$12,552	\$16,400	\$20,444	\$19,431	\$15,970	\$23,931	\$32,189	\$22,339	
Wholesale Trade, Transport. and Utilities		\$11,737	\$13,212	\$13,929	\$14,340	\$14,624	\$22,872	\$24,670	\$25,416	\$24,743	\$28,047	\$32,520	\$31,677	\$33,132	\$38,111	\$37,500	
Construction		\$13,092	\$15,546	\$18,373	\$20,370	\$26,946	\$27,447	\$27,821	\$29,814	\$32,936	\$33,930	\$37,486	\$35,926	\$39,944	\$45,737	\$43,768	
Manufacturing		\$24,886	\$25,399	\$26,894	\$27,705	\$31,859	\$38,175	\$38,702	\$41,293	\$43,387	\$43,108	\$45,475	\$47,916	\$50,232	\$49,208	\$53,531	
Retail Trade		\$4,667	\$4,921	\$4,806	\$4,791	\$4,868	\$7,172	\$6,405	\$6,760	\$6,523	\$8,179	\$8,125	\$7,917	\$9,741	\$9,117	\$11,219	
Information		\$13,560	\$14,424	\$14,035	\$15,859	\$19,618	\$25,297	\$25,749	\$24,685	\$29,367	\$30,817	\$32,005	\$34,984	\$34,983	\$38,925	\$41,786	
Financial Activities		\$22,125	\$24,099	\$25,571	\$25,173	\$27,887	\$32,766	\$34,488	\$35,603	\$36,214	\$38,109	\$39,846	\$41,526	\$42,765	\$45,114	\$46,814	
Professional and Business Services		\$12,119	\$12,791	\$12,233	\$13,470	\$15,461	\$21,612	\$22,147	\$21,208	\$24,826	\$27,193	\$28,170	\$29,772	\$33,094	\$34,607	\$40,100	
Educational Services		\$14,751	\$15,574	\$16,125	\$15,115	\$15,863	\$26,871	\$25,462	\$29,025	\$30,426	\$34,508	\$33,988	\$35,266	\$38,118	\$37,865	\$40,023	
Health Care and Social Assistance		\$20,858	\$21,232	\$22,018	\$23,505	\$24,985	\$26,777	\$27,148	\$28,853	\$30,239	\$30,050	\$32,408	\$33,240	\$34,764	\$37,144	\$39,583	
Leisure and Hospitality		\$4,060	\$4,039	\$3,975	\$4,191	\$4,265	\$5,034	\$5,269	\$5,067	\$5,581	\$5,470	\$5,929	\$5,421	\$5,917	\$6,757	\$6,636	
Other Services		\$3,414	\$4,193	\$4,231	\$4,017	\$3,995	\$5,262	\$6,321	\$6,189	\$7,734	\$7,877	\$7,212	\$9,981	\$10,815	\$11,754	\$13,704	
Public Administration		\$15,157	\$13,682	\$15,058	\$16,084	\$16,748	\$29,171	\$29,940	\$30,398	\$32,638	\$34,231	\$35,286	\$35,741	\$37,566	\$38,454	\$40,801	
<b>Graduates' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>					<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		\$22,526	\$15,171	\$15,307	\$17,619	\$17,555	\$34,094	\$19,255	\$19,614	\$22,305	\$23,697	\$23,118	\$22,671	\$28,185	\$28,357	\$28,524	
Wholesale Trade, Transport. and Utilities		\$19,019	\$19,844	\$19,611	\$21,209	\$21,546	\$27,102	\$28,965	\$28,807	\$29,598	\$31,422	\$35,334	\$34,762	\$36,532	\$41,731	\$41,121	
Construction		\$20,108	\$22,684	\$24,507	\$27,255	\$30,385	\$30,009	\$31,323	\$32,466	\$36,056	\$36,612	\$39,262	\$38,187	\$41,972	\$45,310	\$46,762	
Manufacturing		\$30,183	\$30,882	\$31,088	\$32,141	\$35,003	\$38,802	\$39,579	\$40,319	\$42,719	\$42,324	\$45,295	\$47,431	\$49,459	\$50,785	\$54,314	
Retail Trade		\$8,534	\$9,193	\$9,041	\$9,121	\$9,115	\$12,745	\$12,552	\$13,011	\$12,736	\$14,874	\$15,379	\$15,293	\$17,691	\$18,021	\$20,548	
Information		\$19,345	\$20,296	\$19,973	\$22,903	\$25,482	\$28,397	\$29,052	\$29,755	\$33,340	\$34,398	\$35,370	\$38,038	\$39,874	\$42,390	\$47,147	
Financial Activities		\$26,004	\$27,721	\$28,424	\$29,133	\$31,435	\$33,649	\$35,580	\$36,926	\$38,071	\$39,992	\$42,096	\$43,539	\$45,877	\$48,985	\$51,482	
Professional and Business Services		\$18,025	\$19,096	\$18,395	\$20,002	\$21,804	\$26,045	\$26,369	\$26,396	\$29,311	\$30,807	\$31,766	\$33,265	\$36,113	\$37,613	\$43,181	
Educational Services		\$18,437	\$18,319	\$18,875	\$18,571	\$18,961	\$24,018	\$23,706	\$24,687	\$25,055	\$27,282	\$26,934	\$27,794	\$29,976	\$30,030	\$32,252	
Health Care and Social Assistance		\$26,869	\$27,223	\$28,259	\$29,281	\$30,748	\$31,084	\$31,326	\$33,584	\$34,599	\$33,662	\$35,216	\$36,424	\$37,695	\$39,644	\$42,556	
Leisure and Hospitality		\$8,379	\$7,636	\$7,711	\$7,863	\$8,048	\$13,405	\$10,453	\$10,132	\$10,291	\$15,907	\$12,252	\$11,550	\$14,234	\$13,454	\$16,473	
Other Services		\$7,951	\$8,372	\$8,479	\$9,462	\$9,697	\$11,958	\$13,014	\$12,534	\$14,898	\$14,905	\$15,361	\$17,464	\$19,005	\$18,791	\$21,819	
Public Administration		\$19,453	\$19,339	\$19,621	\$20,588	\$21,923	\$26,932	\$27,621	\$27,734	\$29,774	\$31,116	\$32,132	\$32,672	\$34,155	\$36,125	\$38,169	

\* 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.

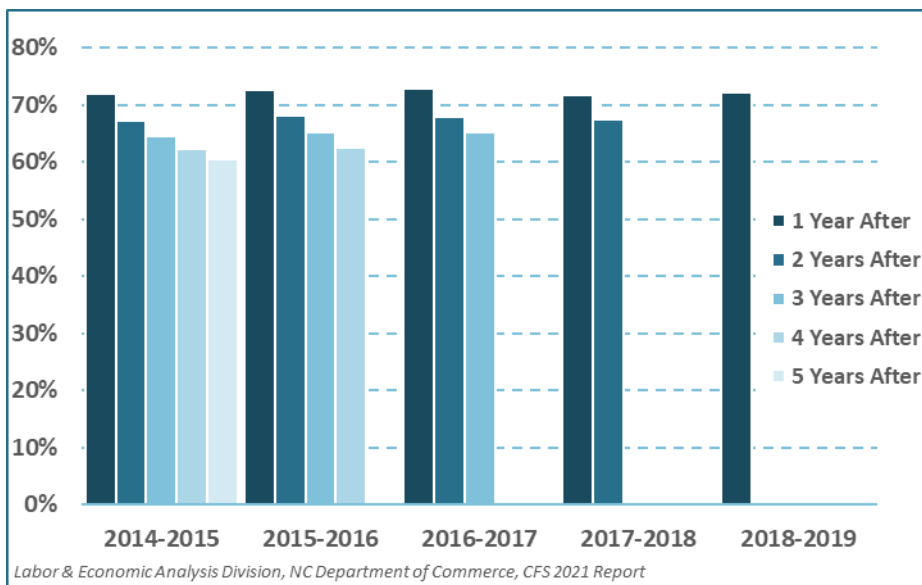
### » UNC Master's Degree Program Outcomes

As shown in Figure 65, after a slight drop from the 2014-2015 program year, enrollment in UNC master's programs showed an increase in enrollment and graduation between the 2015-2016 and 2018-2019 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**



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

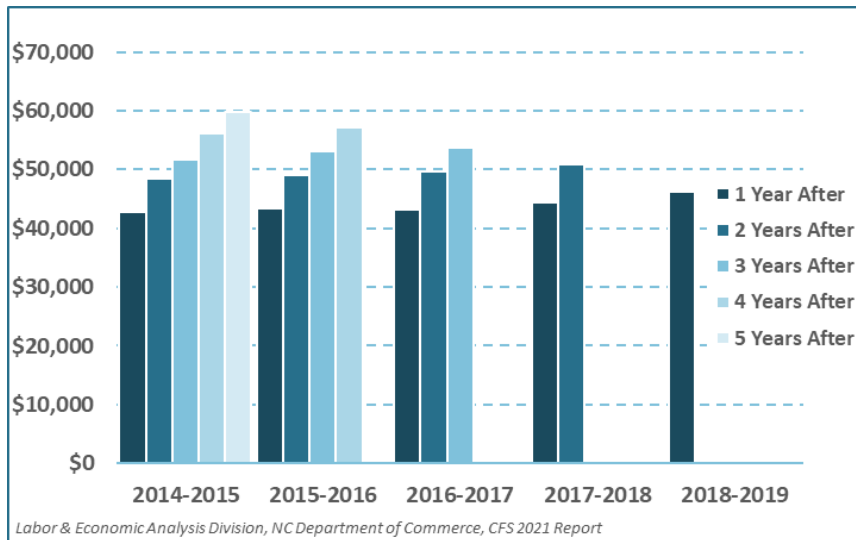


Post-master's employment in North Carolina at one year following completion remained stable across the cohorts examined, with only small fluctuations (72%-73%). However, these employment rates declined within a cohort for each year after graduation (Figure 66), a common pattern across most workforce training and

education programs. Post-graduation enrollment in higher education stayed stable across cohorts at 9%-10% one year after degree completion and declined slightly over time within each cohort (Table 17).

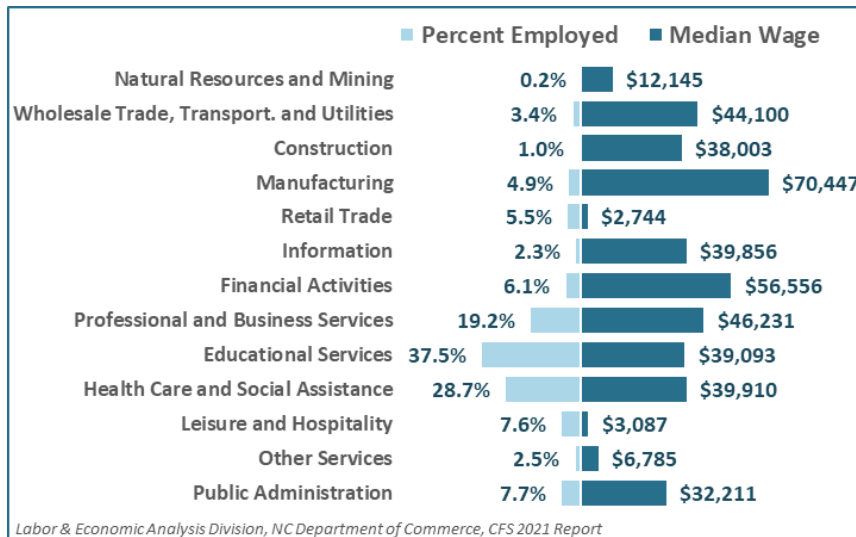
Median wages following degree conferral show only small cohort differences (Figure 67 and Table 17). One-year post-graduation wages increased slightly overall from the 2014-2015 to 2018-2019 graduates. These one-year post-exit median wages ranging from \$42,696 (2014-2015 graduates) to \$46,195 (2018-2019 graduates). For all cohorts, wages increased steadily over time.

**Figure 67. Median Wage of UNC Master’s Program Completers in North Carolina, by Year of Graduation**



Recent master’s recipients (2018-2019 cohort) were most likely to be employed in Educational Services (37%), followed by Health Care and Social Assistance (29%), and Professional and Business Services (19%) (Figure 68). Overall, UNC master’s graduates showed wage growth over time, but wages varied considerably by industry, with graduates employed in manufacturing earning the most (\$70,447) placing them far above the second highest paying industry financial activities (\$56,556).

**Figure 68. 2018-2019 UNC Master’s One-Year Post Outcomes 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, 2021 Report										
Master's Degree						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
All Programs																
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Students		27,301	27,118	27,989	28,875	29,706	27,301	27,118	27,989	28,875	27,301	27,118	27,989	27,301	27,118	27,301
Master's Degree Recipients		9,500	9,534	9,732	9,850	10,306	9,500	9,534	9,732	9,850	9,500	9,534	9,732	9,500	9,534	9,500
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Master's Degree Recipients Employed in North Carolina	N	6,836	6,932	7,087	7,057	7,430	6,378	6,497	6,610	6,644	6,124	6,222	6,337	5,925	5,969	5,737
	%	72%	73%	73%	72%	72%	67%	68%	68%	67%	64%	65%	65%	62%	63%	60%
Master's Degree Recipients' Wages in North Carolina	Mean	\$46,131	\$47,836	\$46,747	\$50,171	\$52,040	\$53,975	\$55,842	\$55,774	\$58,445	\$58,216	\$60,879	\$60,394	\$63,657	\$66,155	\$69,180
	Median	\$42,696	\$43,354	\$43,125	\$44,370	\$46,195	\$48,408	\$49,101	\$49,611	\$50,892	\$51,627	\$53,128	\$53,703	\$56,104	\$57,209	\$59,692
Graduates Enrolled in NC Public Higher Education	N	977	911	998	958	911	897	875	972	908	856	824	906	727	692	576
	%	10%	10%	10%	10%	9%	9%	9%	10%	9%	9%	9%	9%	8%	7%	6%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	1,282	1,135	1,288	1,324	1,388	1,101	1,061	1,296	1,383	1,028	1,075	1,292	935	1,030	878
	%	13%	12%	13%	13%	13%	12%	11%	13%	14%	11%	11%	13%	10%	11%	9%
Graduates Enrolled or Employed in NC	N	7,063	7,119	7,298	7,298	7,667	6,566	6,669	6,835	6,899	6,307	6,390	6,607	6,075	6,135	5,881
	%	74%	75%	75%	74%	74%	69%	70%	70%	70%	66%	67%	68%	64%	64%	62%
<b>Graduates' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	0.2%	0.2%	0.2%	0.2%	*	0.2%	0.3%	*	*	0.2%	0.2%	*	0.3%	*
Wholesale Trade, Transport. and Utilities		3.0%	3.4%	3.1%	3.1%	3.4%	3.2%	3.5%	3.3%	3.2%	3.3%	3.6%	3.3%	3.5%	3.8%	3.5%
Construction		1.1%	0.9%	0.9%	1.2%	1.0%	1.2%	0.9%	1.2%	1.1%	1.3%	1.1%	1.2%	1.4%	1.2%	1.5%
Manufacturing		4.9%	4.7%	4.9%	4.8%	4.9%	5.0%	4.9%	5.0%	5.1%	4.8%	4.8%	4.8%	5.4%	4.9%	5.4%
Retail Trade		5.6%	5.7%	5.7%	6.3%	5.5%	4.0%	4.4%	4.2%	4.6%	3.4%	3.4%	3.6%	3.4%	3.0%	3.1%
Information		2.5%	2.3%	2.0%	2.6%	2.3%	2.4%	2.3%	2.2%	2.9%	2.5%	2.4%	2.4%	2.7%	2.5%	2.8%
Financial Activities		5.1%	4.8%	5.0%	5.2%	6.1%	5.6%	5.1%	5.4%	5.9%	5.9%	5.8%	6.1%	6.3%	7.0%	7.1%
Professional and Business Services		19.6%	19.0%	18.6%	17.8%	19.2%	19.0%	18.4%	19.0%	17.3%	18.5%	18.2%	19.0%	18.1%	18.0%	17.4%
Educational Services		42.9%	42.7%	43.9%	41.9%	37.5%	41.6%	40.6%	39.6%	39.0%	41.3%	38.5%	38.5%	38.8%	37.8%	37.5%
Health Care and Social Assistance		24.1%	26.0%	24.1%	25.2%	28.7%	24.6%	26.0%	25.2%	25.2%	24.1%	26.3%	25.0%	24.3%	25.4%	24.4%
Leisure and Hospitality		6.4%	6.6%	7.5%	7.6%	7.6%	4.8%	5.0%	5.5%	5.2%	4.0%	4.6%	4.5%	3.8%	4.1%	3.6%
Other Services		2.6%	2.9%	2.5%	2.8%	2.5%	2.1%	2.1%	2.4%	2.1%	2.0%	2.0%	2.1%	1.8%	2.3%	2.0%
Public Administration		7.5%	7.0%	7.5%	8.0%	7.7%	7.3%	7.3%	7.4%	8.1%	7.7%	7.3%	7.7%	7.7%	7.2%	7.5%
<b>Graduates' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	\$29,013	\$24,969	\$11,063	\$12,145	*	\$30,919	\$38,851	*	*	\$52,128	\$49,359	*	\$43,780	*
Wholesale Trade, Transport. and Utilities		\$32,358	\$34,083	\$33,050	\$35,372	\$44,100	\$48,354	\$47,184	\$42,495	\$50,003	\$55,000	\$53,193	\$56,148	\$59,159	\$68,110	\$65,818
Construction		\$34,535	\$42,891	\$32,432	\$27,912	\$38,003	\$40,579	\$50,316	\$35,483	\$38,520	\$40,762	\$49,184	\$52,790	\$50,810	\$60,289	\$57,036
Manufacturing		\$60,731	\$61,371	\$62,802	\$70,765	\$70,447	\$63,190	\$68,138	\$71,107	\$75,055	\$66,366	\$76,738	\$75,821	\$67,074	\$77,476	\$75,515
Retail Trade		\$2,737	\$3,691	\$3,307	\$3,078	\$2,744	\$4,430	\$3,989	\$4,657	\$3,794	\$5,585	\$4,203	\$6,017	\$5,980	\$5,366	\$7,498
Information		\$31,261	\$35,476	\$36,146	\$37,649	\$39,856	\$43,983	\$49,284	\$42,237	\$43,296	\$46,086	\$48,288	\$51,306	\$52,252	\$63,833	\$66,618
Financial Activities		\$50,256	\$48,552	\$49,255	\$56,222	\$56,556	\$58,088	\$59,597	\$60,857	\$64,807	\$67,768	\$66,623	\$65,986	\$74,581	\$68,524	\$78,831
Professional and Business Services		\$41,827	\$44,089	\$42,864	\$42,459	\$46,231	\$51,111	\$51,368	\$52,818	\$53,493	\$53,555	\$55,703	\$57,727	\$59,018	\$62,517	\$64,351
Educational Services		\$37,546	\$37,798	\$37,336	\$38,770	\$39,093	\$42,389	\$42,745	\$42,862	\$43,509	\$44,985	\$46,083	\$45,809	\$48,473	\$48,456	\$51,276
Health Care and Social Assistance		\$37,604	\$38,696	\$36,677	\$38,269	\$39,910	\$44,092	\$43,918	\$44,835	\$44,737	\$46,260	\$48,410	\$47,445	\$50,292	\$52,601	\$53,197
Leisure and Hospitality		\$3,143	\$2,758	\$3,075	\$3,311	\$3,087	\$3,196	\$2,901	\$3,273	\$3,552	\$2,879	\$3,172	\$3,545	\$3,325	\$4,610	\$3,899
Other Services		\$7,450	\$4,375	\$5,573	\$8,981	\$6,785	\$15,229	\$12,777	\$17,791	\$25,408	\$19,229	\$20,994	\$29,788	\$24,671	\$30,650	\$28,467
Public Administration		\$33,334	\$35,127	\$34,553	\$34,099	\$32,211	\$42,080	\$39,494	\$42,422	\$41,597	\$43,950	\$44,040	\$45,929	\$47,554	\$47,413	\$52,032
<b>Graduates' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	\$33,663	\$42,661	\$44,914	\$39,171	*	\$31,935	\$49,034	*	*	\$45,995	\$64,524	*	\$45,430	*
Wholesale Trade, Transport. and Utilities		\$46,325	\$48,640	\$46,599	\$50,979	\$48,131	\$55,355	\$60,358	\$53,984	\$62,123	\$65,421	\$66,185	\$66,325	\$67,598	\$75,398	\$72,228
Construction		\$43,286	\$42,319	\$36,289	\$40,306	\$45,894	\$49,659	\$50,742	\$42,741	\$47,485	\$54,364	\$52,807	\$57,364	\$62,825	\$60,826	\$68,508
Manufacturing		\$64,260	\$62,064	\$67,357	\$72,977	\$73,174	\$68,334	\$70,674	\$75,581	\$81,848	\$70,847	\$77,838	\$84,305	\$73,794	\$81,665	\$82,448
Retail Trade		\$12,377	\$11,863	\$11,555	\$10,098	\$11,281	\$20,475	\$14,520	\$16,760	\$13,344	\$20,503	\$16,583	\$19,329	\$22,795	\$21,932	\$26,562
Information		\$41,566	\$44,371	\$47,238	\$48,917	\$54,509	\$53,054	\$58,088	\$54,095	\$52,073	\$55,253	\$63,143	\$61,192	\$62,239	\$74,195	\$75,175
Financial Activities		\$59,140	\$56,941	\$58,913	\$66,370	\$65,638	\$65,584	\$67,256	\$68,866	\$74,529	\$74,271	\$72,858	\$72,565	\$84,826	\$74,047	\$85,530
Professional and Business Services		\$42,101	\$44,384	\$44,053	\$44,244	\$46,974	\$50,310	\$51,830	\$55,005	\$55,097	\$54,088	\$57,892	\$56,327	\$60,558	\$64,063	\$68,835
Educational Services		\$32,116	\$33,333	\$32,136	\$34,578	\$34,639	\$37,991	\$39,759	\$38,897	\$40,949	\$41,182	\$43,056	\$42,312	\$45,198	\$45,810	\$49,277
Health Care and Social Assistance		\$42,282	\$44,952	\$42,455	\$46,835	\$47,395	\$50,043	\$52,724	\$51,677	\$55,353	\$53,759	\$57,916	\$55,787	\$58,661	\$62,213	\$62,725
Leisure and Hospitality		\$9,917	\$8,679	\$8,832	\$9,774	\$10,048	\$13,599	\$11,423	\$11,568	\$13,061	\$13,529	\$12,741	\$14,156	\$14,788	\$14,858	\$15,983
Other Services		\$15,450	\$14,844	\$16,377	\$20,989	\$20,878	\$23,533	\$23,263	\$24,199	\$32,584	\$26,260	\$31,140	\$31,362	\$31,623	\$33,656	\$33,337
Public Administration		\$31,933	\$32,567	\$33,924	\$34,623	\$32,607	\$39,276	\$36,797	\$40,800	\$40,609	\$41,958	\$41,141	\$45,102	\$45,983	\$45,931	\$50,652

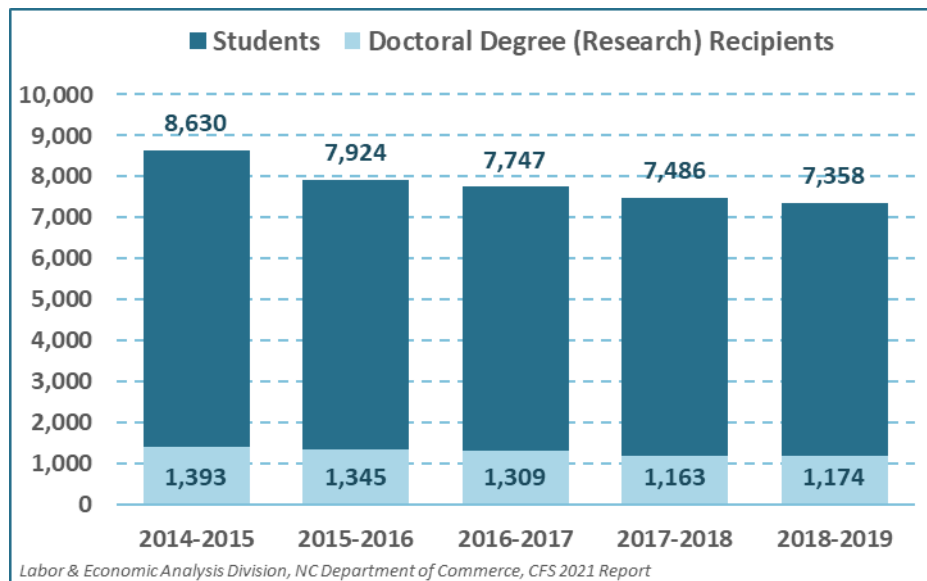
\* Employment percentages by industry total more than 100% due to individuals who were employed, and receiving wages, in more than one industry. See methodology for more information.



## » UNC Doctoral (Research) Degree Program Outcomes

As shown in Figure 69, enrollment in research-focused doctoral programs declined over time, from 8,630 in the 2014-2015 program year to 7,358 in 2018-2019.

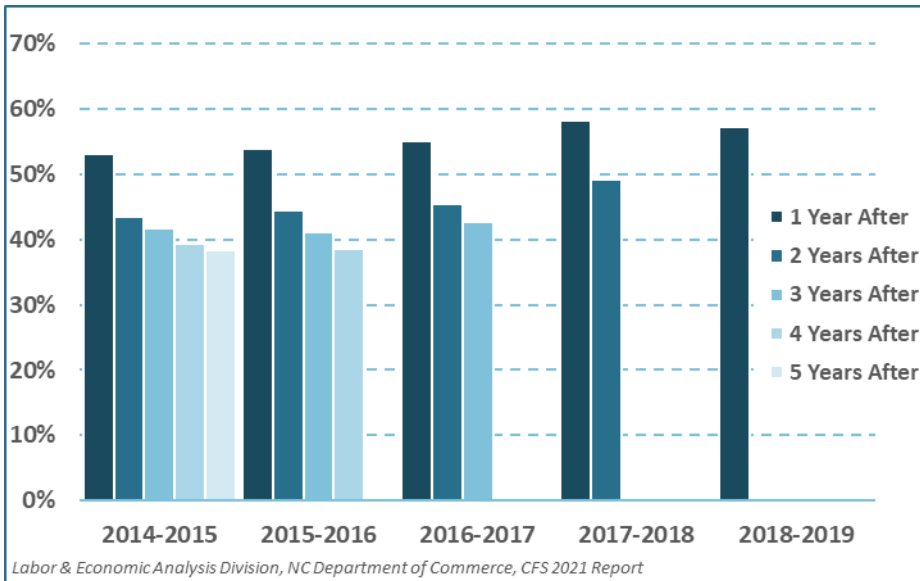
**Figure 69. UNC Doctoral (Research) Degree Program Participants and Completers by Program Year**



Students who were recorded as having graduated from a doctoral research 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 generally increased across the cohorts from 53% to 58% with only a 1% decrease in 2018-2019 to 57% (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.

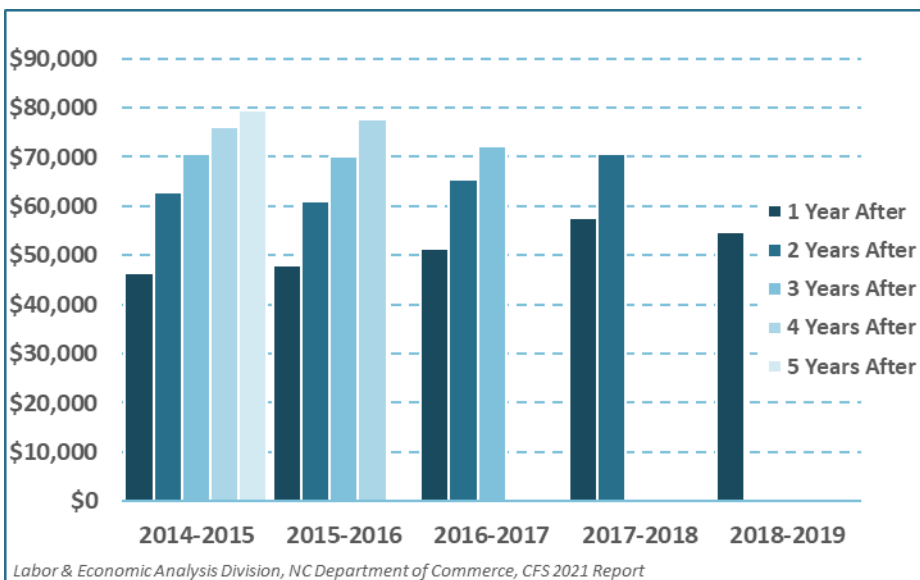
Many short-term academic jobs are not covered by unemployment insurance, which would exclude them from the statistics presented. Additionally, many research doctorate recipients leave the state for academic employment, as academic hiring guidelines typically require universities to conduct a national search. Even for institutions with no such requirement, doctoral research degrees focus on extremely narrow areas, and any such focused area is likely to have very few, if any, job openings in a particular region. Thus, students trained by UNC institutions may leave the state for jobs in their focus area, while the same trend is likely to work in reverse where students trained at out of state universities come to North Carolina for jobs in their focus area. The second year after graduation shows 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 (another phenomenon common among doctoral students/graduates).

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

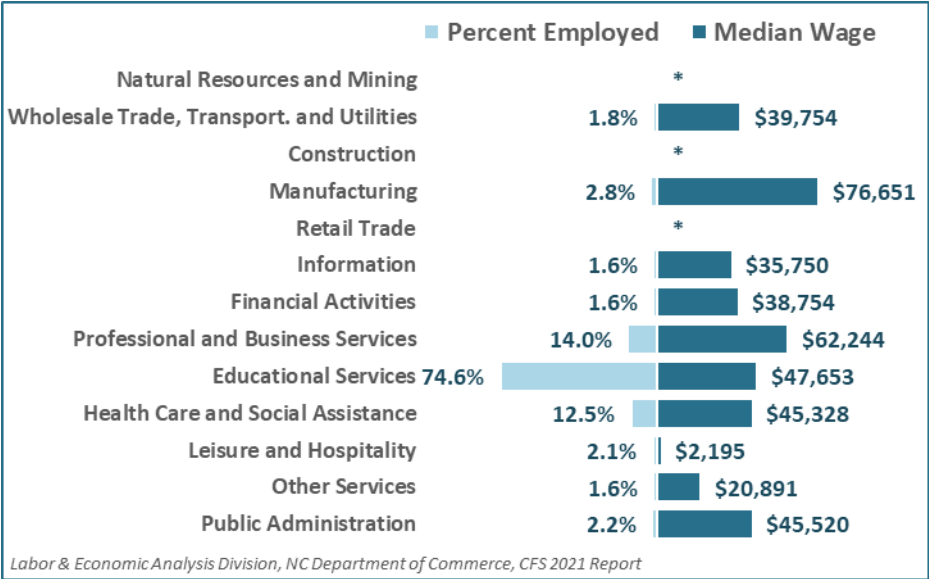


Short-term wage outcomes one year after show an increase across the first four cohorts of research doctorates, then a decline for the 2018-2019 graduating class (Figure 71). Within each cohort, wages increase considerably over time. The vast majority of those completing doctoral research programs were employed in Educational Services (75%) followed distantly by Professional and Business Services (14%) and Health Care and Social Assistance (13%) (Table 18).

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



**Figure 72. 2018-2019 UNC Doctoral (Research) Program Completers One Year After Graduation: Percentage Employed and Median Wage by Industry**



Overall, UNC’s doctoral research programs saw wage increases over time across graduating cohorts, as well as larger median wage growth within each graduating cohort.

**Table 18. UNC Doctoral (Research) Degree Program Participants and Completers, One Through Five Years After Exit, Overall and By Industry**

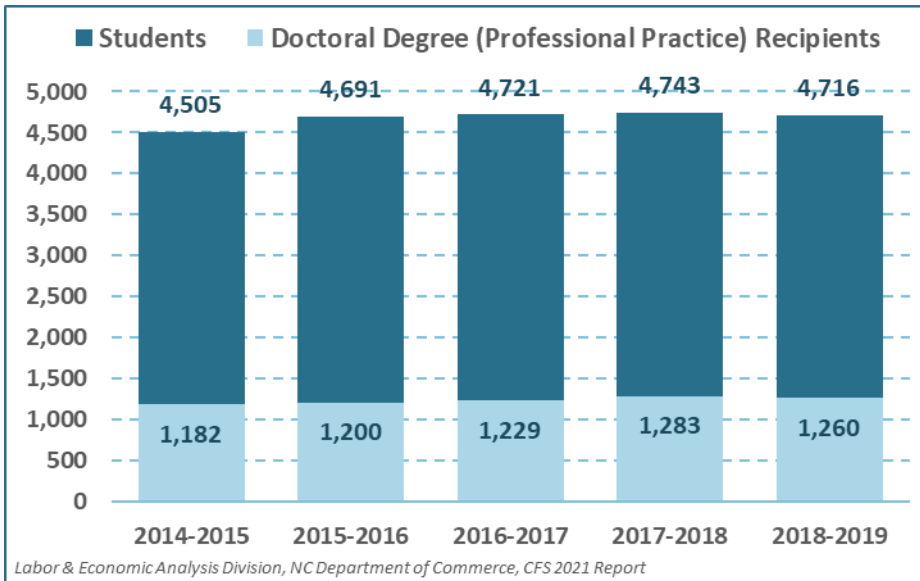
University Of North Carolina System						Common Follow-up System: Evaluative Measures, 2021 Report										
Doctoral Degree (Research)						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce										
All Programs																
Program Year		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Students		8,630	7,924	7,747	7,486	7,358	8,630	7,924	7,747	7,486	8,630	7,924	7,747	8,630	7,924	8,630
Doctoral Degree (Research) Recipients		1,393	1,345	1,309	1,163	1,174	1,393	1,345	1,309	1,163	1,393	1,345	1,309	1,393	1,345	1,393
<b>Post-Completion Outcome Measures</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Doctoral Degree (Research) Recipients	N	740	726	721	678	672	605	597	596	573	582	552	560	547	519	534
Employed in North Carolina	%	53%	54%	55%	58%	57%	43%	44%	46%	49%	42%	41%	43%	39%	39%	38%
Doctoral Degree (Research) Recipients' Wages in North Carolina	Mean	\$49,473	\$51,235	\$52,238	\$58,068	\$55,672	\$64,219	\$64,325	\$65,344	\$71,992	\$74,472	\$73,524	\$72,481	\$77,785	\$81,778	\$80,612
	Median	\$46,301	\$47,855	\$51,255	\$57,488	\$54,671	\$62,821	\$61,096	\$65,305	\$70,629	\$70,723	\$69,971	\$72,055	\$76,135	\$77,735	\$79,493
Graduates Enrolled in NC Public Higher Education	N	44	32	33	37	31	32	36	38	31	23	18	21	16	16	17
	%	3%	2%	3%	3%	3%	2%	3%	3%	3%	2%	1%	2%	1%	1%	1%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	56	46	40	54	51	37	45	50	52	32	29	32	26	28	28
	%	4%	3%	3%	5%	4%	3%	3%	4%	2%	2%	2%	2%	2%	2%	2%
Graduates Enrolled or Employed in NC	N	743	717	708	677	678	609	601	608	584	585	550	561	551	526	539
	%	53%	53%	54%	58%	58%	44%	45%	46%	50%	42%	41%	43%	40%	39%	39%
<b>Graduates' Employment by Industry*</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		1.4%	*	*	2.7%	1.8%	1.7%	*	*	3.0%	2.1%	2.2%	*	*	2.7%	2.1%
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		4.6%	3.2%	3.2%	3.2%	2.8%	5.0%	2.8%	3.9%	3.8%	5.2%	3.3%	3.8%	5.3%	3.5%	5.1%
Retail Trade		*	1.5%	1.4%	1.5%	*	*	*	*	*	*	*	*	*	*	*
Information		2.3%	2.9%	3.2%	3.5%	1.6%	3.0%	3.7%	2.3%	3.5%	3.1%	3.8%	2.1%	3.7%	3.5%	3.7%
Financial Activities		*	2.6%	2.1%	*	1.6%	*	3.2%	2.5%	*	*	3.3%	3.8%	*	4.2%	3.4%
Professional and Business Services		12.0%	11.8%	14.1%	14.9%	14.0%	13.9%	12.9%	16.6%	16.8%	14.3%	12.7%	18.9%	14.8%	13.1%	15.0%
Educational Services		77.6%	76.7%	79.6%	73.0%	74.6%	72.2%	73.5%	69.3%	65.1%	71.5%	68.7%	64.5%	67.6%	64.7%	66.5%
Health Care and Social Assistance		10.4%	9.1%	7.4%	9.1%	12.5%	11.1%	9.2%	9.9%	10.6%	9.6%	10.7%	10.4%	10.8%	11.2%	9.4%
Leisure and Hospitality		1.8%	1.8%	2.1%	1.8%	2.1%	2.0%	1.8%	2.0%	1.7%	2.2%	*	2.0%	2.4%	*	2.1%
Other Services		*	*	*	*	1.6%	*	*	*	*	*	*	*	*	*	*
Public Administration		2.3%	2.5%	1.4%	2.2%	2.2%	2.3%	2.8%	2.0%	2.4%	2.6%	2.9%	2.0%	2.4%	2.9%	2.6%
<b>Graduates' Median Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$33,288	*	*	\$66,531	\$39,754	\$47,807	*	*	\$81,318	\$48,756	\$90,782	*	*	\$89,077	\$61,255
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		\$72,525	\$51,447	\$80,417	\$75,498	\$76,651	\$83,221	\$87,653	\$87,639	\$97,466	\$84,433	\$92,604	\$93,042	\$95,718	\$99,675	\$106,019
Retail Trade		*	\$964	\$3,745	\$7,005	*	*	*	*	*	*	*	*	*	*	*
Information		\$80,959	\$90,606	\$20,919	\$61,825	\$35,750	\$95,022	\$81,647	\$100,381	\$109,611	\$84,635	\$86,750	\$95,410	\$97,005	\$109,431	\$103,333
Financial Activities		*	\$71,584	\$55,943	*	\$38,754	*	\$93,020	\$103,533	*	*	\$125,392	\$111,238	*	\$121,464	\$13,399
Professional and Business Services		\$45,585	\$48,782	\$55,201	\$67,512	\$62,244	\$67,302	\$67,145	\$73,503	\$86,185	\$78,400	\$74,510	\$78,319	\$84,185	\$86,268	\$93,404
Educational Services		\$36,612	\$40,716	\$41,659	\$48,000	\$47,653	\$55,999	\$51,905	\$54,418	\$61,732	\$64,423	\$62,301	\$62,893	\$69,064	\$68,597	\$72,394
Health Care and Social Assistance		\$30,521	\$44,718	\$22,624	\$47,958	\$45,328	\$33,437	\$47,500	\$36,799	\$54,996	\$38,829	\$58,802	\$54,028	\$51,212	\$63,359	\$52,952
Leisure and Hospitality		\$1,955	\$1,359	\$1,875	\$4,549	\$2,195	\$1,367	\$2,777	\$4,918	\$3,089	\$1,147	*	\$3,652	\$1,733	*	\$2,901
Other Services		*	*	*	*	\$20,891	*	*	*	*	*	*	*	*	*	*
Public Administration		\$42,369	\$54,530	\$43,446	\$57,727	\$45,520	\$52,471	\$47,020	\$46,109	\$65,577	\$54,580	\$50,217	\$75,659	\$56,334	\$71,167	\$58,714
<b>Graduates' Average Wages by Industry of Employment</b>		<b>1 Year After</b>					<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport. and Utilities		\$48,126	*	*	\$72,014	\$47,996	\$52,388	*	*	\$81,582	\$55,696	\$90,513	*	*	\$95,333	\$58,332
Construction		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing		\$68,677	\$72,823	\$81,237	\$76,230	\$68,873	\$77,386	\$94,822	\$87,863	\$91,933	\$84,458	\$110,149	\$102,949	\$89,379	\$107,118	\$97,371
Retail Trade		*	\$22,955	\$16,878	\$13,761	*	*	*	*	*	*	*	*	*	*	*
Information		\$72,052	\$70,553	\$45,594	\$57,112	\$50,991	\$76,024	\$71,769	\$83,428	\$81,805	\$78,160	\$83,471	\$82,882	\$89,533	\$99,603	\$103,689
Financial Activities		*	\$71,599	\$53,947	*	\$63,444	*	\$87,031	\$83,592	*	*	\$115,609	\$74,304	*	\$105,933	\$43,803
Professional and Business Services		\$51,093	\$49,128	\$59,561	\$67,669	\$62,238	\$71,663	\$61,486	\$75,859	\$80,525	\$97,793	\$72,390	\$74,473	\$83,553	\$87,675	\$86,566
Educational Services		\$40,020	\$41,101	\$42,795	\$46,250	\$45,758	\$54,834	\$53,218	\$54,249	\$60,413	\$61,852	\$61,380	\$60,924	\$68,558	\$68,534	\$71,096
Health Care and Social Assistance		\$38,226	\$48,120	\$29,097	\$52,090	\$44,898	\$43,148	\$50,788	\$44,501	\$59,006	\$50,093	\$62,348	\$58,000	\$57,769	\$68,203	\$66,080
Leisure and Hospitality		\$3,970	\$16,807	\$5,790	\$11,650	\$7,537	\$4,036	\$10,303	\$7,968	\$13,419	\$2,772	*	\$8,141	\$5,071	*	\$7,968
Other Services		*	*	*	*	\$27,162	*	*	*	*	*	*	*	*	*	*
Public Administration		\$44,139	\$49,065	\$52,795	\$59,419	\$47,636	\$53,838	\$46,365	\$50,926	\$66,181	\$50,447	\$50,605	\$69,868	\$55,404	\$53,089	\$51,512

\* 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.

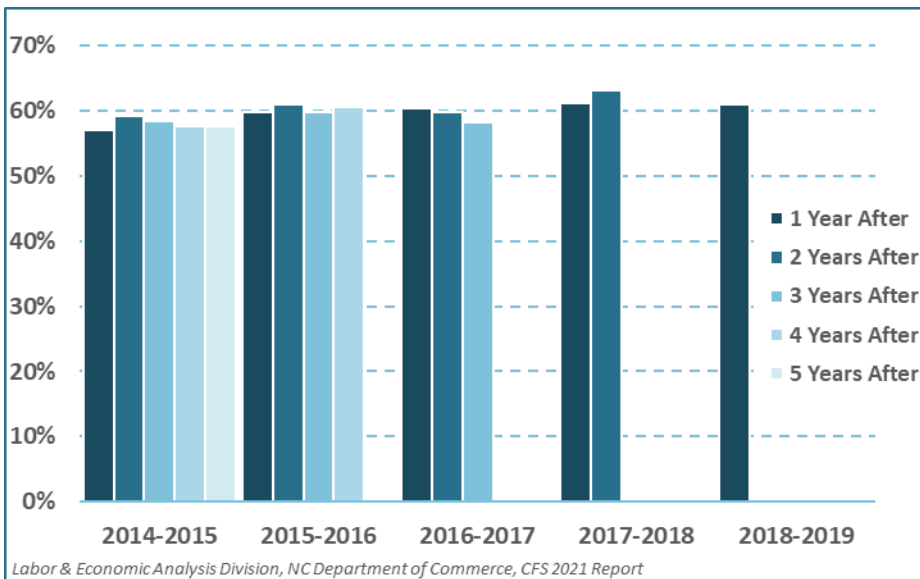
» UNC Doctoral (Professional Practice) Degree Program Outcomes

As shown in Figure 73, enrollment in professional doctoral programs in the UNC system increased slightly between the 2014-2015 and 2018-2019 program years (also see Table 19). Numbers of graduates also increased somewhat during this time period.

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



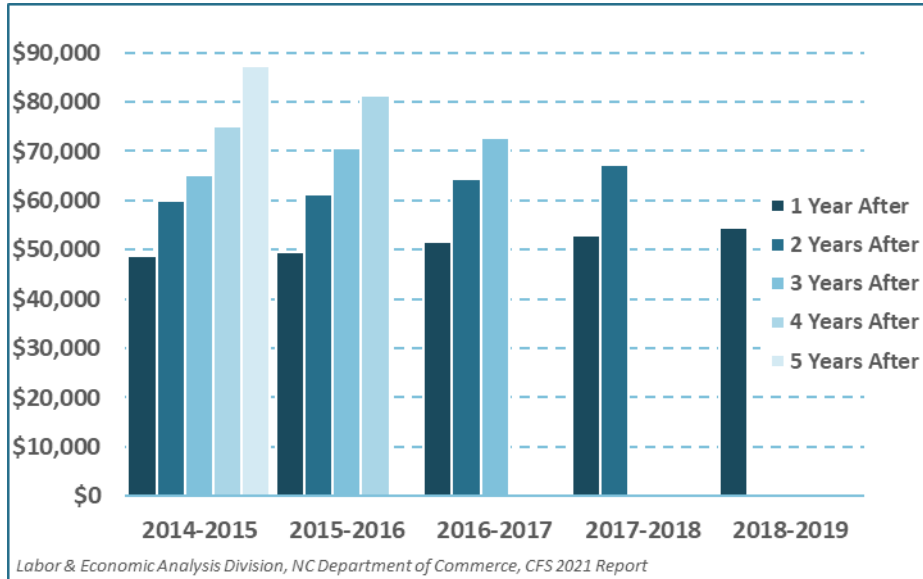
**Figure 74. Percentage of UNC Doctoral (Professional Practice) Program Completers Employed in North Carolina After Degree Conferral, by Year of Graduation**



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. 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

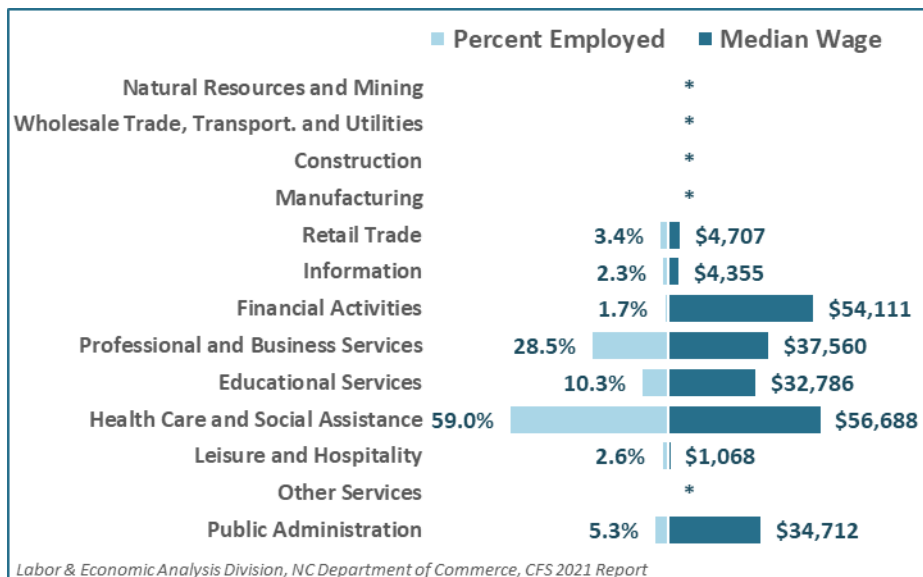
employment out of state (Figure 74), joining a partnership (or becoming self-employed), making them ineligible for UI benefits. Employment rates and median wages for professional doctoral graduates within North Carolina show an increase across cohorts and show high wage growth within cohorts (Figure 75).

**Figure 75. Median Wage of UNC Professional Doctorate Program Completers in North Carolina, by Year of Graduation**



Recent graduates of doctoral practice programs were most likely to be employed within the Health Care and Social Assistance (59%) and Professional and Business Services industries (29%), fields that include medical doctors and attorneys-at-law (Figure 76). Overall, UNC’s professional practice doctoral graduates show steady employment and positive wage outcomes.

**Figure 76. 2018-2019 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, 2021 Report									
Doctoral Degree (Professional Practice)						Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce									
All Programs															
Program Year	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2014-2015	2015-2016	2016-2017	2017-2018	2014-2015	2015-2016	2016-2017	2014-2015	2015-2016	2014-2015
Students	4,505	4,691	4,721	4,743	4,716	4,505	4,691	4,721	4,743	4,505	4,691	4,721	4,505	4,691	4,505
Doctoral Degree (Professional Practice)	1,182	1,200	1,229	1,283	1,260	1,182	1,200	1,229	1,283	1,182	1,200	1,229	1,182	1,200	1,182
<b>Post-Completion Outcome Measures</b>															
<b>1 Year After</b>						<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Doctoral Degree (Professional Practice)	N	674	717	743	786	699	733	736	810	691	717	716	682	728	682
Recipients Employed in North Carolina	%	57%	60%	60%	61%	59%	61%	60%	63%	58%	60%	58%	58%	61%	58%
Doctoral Degree (Professional Practice)	Mean	\$57,101	\$59,621	\$62,131	\$66,495	\$74,285	\$75,242	\$78,999	\$81,713	\$81,864	\$85,061	\$87,829	\$95,206	\$96,444	\$106,441
Recipients' Wages in North Carolina	Median	\$48,733	\$49,557	\$51,643	\$52,787	\$59,911	\$61,127	\$64,418	\$67,263	\$65,095	\$70,714	\$72,646	\$75,162	\$81,262	\$87,289
Graduates Enrolled in NC Public Higher Education	N	32	25	31	31	24	26	39	32	24	24	28	22	22	12
	%	3%	2%	3%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	1%
Graduates Enrolled in NC Public Education, Employment, or Training Program	N	45	49	43	45	39	43	53	66	35	41	57	35	55	42
	%	4%	4%	3%	4%	3%	4%	4%	5%	3%	3%	5%	3%	5%	4%
Graduates Enrolled or Employed in NC	N	682	728	747	794	702	739	742	817	693	724	721	684	730	684
	%	58%	61%	61%	62%	59%	62%	60%	64%	59%	60%	59%	58%	61%	58%
<b>Graduates' Employment by Industry*</b>															
<b>1 Year After</b>						<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport, and Utilities	*	*	1.3%	*	*	*	*	1.6%	*	*	1.7%	2.0%	*	1.5%	*
Construction	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	*	1.4%	*	*	*	*	*	*	*	*	1.4%	*	*	1.4%	*
Retail Trade	13.1%	12.3%	10.2%	6.5%	3.4%	10.0%	10.0%	7.6%	5.3%	9.3%	8.5%	7.4%	8.2%	7.7%	8.2%
Information	*	*	*	*	2.3%	*	*	*	*	*	*	1.4%	*	*	*
Financial Activities	2.2%	3.1%	2.0%	1.8%	1.7%	2.7%	1.6%	2.7%	2.3%	3.0%	1.8%	3.4%	3.2%	2.2%	5.0%
Professional and Business Services	30.3%	32.8%	30.3%	27.9%	28.5%	30.0%	34.1%	29.8%	27.9%	30.0%	33.9%	27.9%	29.2%	32.7%	29.6%
Educational Services	10.7%	12.7%	13.9%	9.7%	10.3%	10.2%	10.4%	8.8%	8.8%	11.3%	7.9%	8.4%	9.2%	8.0%	9.8%
Health Care and Social Assistance	45.3%	45.0%	50.5%	57.9%	59.0%	48.4%	46.4%	53.4%	58.5%	48.6%	46.7%	54.2%	48.5%	49.2%	47.2%
Leisure and Hospitality	3.3%	3.2%	2.8%	2.4%	2.6%	1.7%	1.5%	1.9%	*	*	*	1.7%	*	*	*
Other Services	2.2%	1.7%	1.3%	*	*	2.1%	*	*	*	1.4%	*	*	*	*	*
Public Administration	7.3%	8.1%	6.6%	4.3%	5.3%	7.4%	9.4%	7.5%	4.2%	7.7%	9.1%	7.4%	7.8%	8.0%	6.6%
<b>Graduates' Median Wages by Industry of Employment</b>															
<b>1 Year After</b>						<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport, and Utilities	*	*	\$17,564	*	*	*	*	\$29,714	*	*	\$19,486	\$17,996	*	\$8,877	*
Construction	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	*	\$9,311	*	*	*	*	*	*	*	*	\$78,923	*	*	\$72,316	*
Retail Trade	\$107,073	\$104,796	\$32,518	\$43,335	\$4,707	\$114,679	\$92,360	\$110,253	\$86,079	\$111,770	\$118,180	\$106,602	\$120,238	\$119,810	\$114,093
Information	*	*	*	*	\$4,355	*	*	*	*	*	*	\$22,369	*	*	*
Financial Activities	\$46,068	\$14,999	\$45,270	\$29,500	\$54,111	\$46,217	\$58,238	\$61,422	\$23,023	\$73,871	\$55,721	\$64,642	\$77,740	\$66,721	\$29,394
Professional and Business Services	\$28,868	\$28,717	\$30,768	\$39,396	\$37,560	\$51,550	\$45,576	\$52,176	\$62,711	\$60,488	\$64,276	\$65,497	\$68,938	\$73,575	\$80,679
Educational Services	\$17,272	\$23,335	\$28,572	\$15,178	\$32,786	\$28,482	\$30,121	\$28,653	\$25,000	\$29,852	\$15,452	\$35,028	\$48,774	\$35,558	\$58,218
Health Care and Social Assistance	\$49,656	\$50,857	\$51,643	\$57,056	\$56,688	\$54,888	\$59,356	\$63,563	\$67,097	\$59,473	\$68,489	\$69,367	\$68,439	\$77,955	\$86,825
Leisure and Hospitality	\$1,585	\$2,400	\$990	\$1,697	\$1,068	\$3,648	\$1,538	\$1,835	*	*	*	\$2,683	*	*	*
Other Services	\$7,500	\$2,787	\$2,256	*	*	\$21,000	*	*	*	\$39,551	*	*	*	*	*
Public Administration	\$29,024	\$25,376	\$31,775	\$34,671	\$34,712	\$45,021	\$46,304	\$44,564	\$52,475	\$48,491	\$50,508	\$49,851	\$51,859	\$56,310	\$55,532
<b>Graduates' Average Wages by Industry of Employment</b>															
<b>1 Year After</b>						<b>2 Years After</b>				<b>3 Years After</b>			<b>4 Years After</b>		<b>5 Years After</b>
Natural Resources and Mining	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade, Transport, and Utilities	*	*	\$26,846	*	*	*	*	\$36,352	*	*	\$31,917	\$37,090	*	\$100,720	*
Construction	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	*	\$22,080	*	*	*	*	*	*	*	*	\$82,074	*	*	\$99,700	*
Retail Trade	\$77,632	\$73,937	\$49,444	\$47,613	\$38,098	\$98,531	\$88,237	\$87,752	\$69,497	\$93,982	\$103,849	\$88,217	\$103,532	\$102,065	\$91,250
Information	*	*	*	*	\$7,874	*	*	*	*	*	*	\$30,623	*	*	*
Financial Activities	\$46,892	\$28,827	\$60,254	\$46,613	\$58,882	\$47,837	\$64,383	\$71,199	\$40,456	\$67,652	\$58,481	\$71,358	\$77,365	\$59,530	\$46,566
Professional and Business Services	\$39,321	\$41,046	\$44,417	\$48,267	\$48,496	\$65,299	\$57,444	\$64,228	\$70,367	\$73,504	\$72,164	\$77,379	\$86,787	\$85,449	\$95,767
Educational Services	\$23,825	\$30,320	\$31,356	\$27,287	\$34,429	\$33,420	\$35,675	\$35,337	\$31,579	\$34,244	\$34,238	\$36,537	\$51,476	\$43,755	\$59,382
Health Care and Social Assistance	\$59,550	\$62,438	\$66,250	\$73,172	\$72,091	\$70,572	\$73,434	\$79,685	\$82,630	\$77,205	\$85,976	\$87,963	\$94,754	\$94,694	\$113,857
Leisure and Hospitality	\$9,076	\$4,154	\$2,559	\$6,198	\$4,639	\$15,522	\$5,534	\$4,806	*	*	\$12,518	*	*	*	*
Other Services	\$23,394	\$17,012	\$21,449	*	*	\$38,153	*	*	*	\$39,939	*	*	*	*	*
Public Administration	\$30,013	\$28,617	\$31,061	\$39,498	\$38,486	\$43,122	\$40,345	\$38,275	\$50,240	\$49,194	\$47,278	\$44,992	\$52,703	\$55,340	\$54,945

\* 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 the most recent cohort of graduates with research doctorates. Higher-level credentials were associated with better wage outcomes: 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); employed in a role, including self-employment or partnership, not covered by North Carolina's unemployment insurance laws; or employed in another state.

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). Even if some programs lead to higher wages after graduation, the highest earning programs are likely to shift over time as North Carolina's economy changes over time. Furthermore, at higher degree levels the population of graduates shrinks substantially, making such fine-grained interpretation comparisons unreliable because in such a small population a difference of a few persons could cause large shifts in the population measures. Any such interpretation, especially for smaller programs, requires a deeper analysis, such as combining multiple graduation cohorts and statistical techniques suitable for smaller populations. 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, 2014-2015 Graduates**

North Carolina Community College System Associate Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2014-2015																
	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	1,725	329	258	78%	\$18,013	247	75%	\$23,504	235	71%	\$28,107	229	70%	\$31,723	212	64%	\$34,483
Biological and Chemical Technologies	716	102	76	75%	\$21,693	71	70%	\$25,525	71	70%	\$29,886	74	73%	\$30,171	74	73%	\$33,438
Business Technologies	42,162	4,738	3,789	80%	\$22,027	3,769	80%	\$26,082	3,693	78%	\$29,024	3,641	77%	\$31,632	3,578	76%	\$33,510
Commercial and Artistic Production Technologies	2,957	397	291	73%	\$13,565	284	72%	\$18,215	286	72%	\$20,757	287	72%	\$23,618	272	69%	\$27,877
Construction Technologies	3,133	400	330	83%	\$32,774	319	80%	\$37,471	300	75%	\$42,108	289	72%	\$47,126	281	70%	\$49,068
Engineering Technologies	5,472	691	561	81%	\$27,096	545	79%	\$35,210	537	78%	\$39,202	521	75%	\$44,093	515	75%	\$47,031
Health Sciences	22,435	4,939	4,467	90%	\$36,188	4,387	89%	\$44,145	4,268	86%	\$45,532	4,162	84%	\$46,905	4,069	82%	\$47,101
Industrial Technologies	3,969	543	457	84%	\$32,721	441	81%	\$39,288	439	81%	\$43,306	431	79%	\$45,685	426	78%	\$48,091
Public Service Technologies	25,272	2,859	2,319	81%	\$19,164	2,260	79%	\$22,605	2,211	77%	\$25,119	2,199	77%	\$27,015	2,130	75%	\$29,333
Transportation Systems Technologies	4,792	540	453	84%	\$26,184	446	83%	\$30,578	434	80%	\$34,320	429	79%	\$38,417	413	76%	\$41,503

**Table 2. CTE Associate Degree Program Outcomes by Program Area, 2015-2016 Graduates**

North Carolina Community College System Associate Degree Programs		Common Follow-up System: Evaluative Measures Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce												
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2015-2016													
	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	1,615	301	222	74%	\$20,429	209	69%	\$26,184	208	69%	\$31,893	204	68%	\$33,557
Biological and Chemical Technologies	649	114	91	80%	\$20,559	87	76%	\$29,360	89	78%	\$31,438	84	74%	\$36,771
Business Technologies	38,643	4,594	3,684	80%	\$22,729	3,650	79%	\$27,084	3,622	79%	\$30,196	3,541	77%	\$32,179
Commercial and Artistic Production Technologies	2,748	444	327	74%	\$14,933	321	72%	\$20,031	317	71%	\$22,444	307	69%	\$23,486
Construction Technologies	2,862	376	301	80%	\$32,033	295	78%	\$36,427	287	76%	\$42,372	288	77%	\$44,344
Engineering Technologies	4,984	689	576	84%	\$27,913	564	82%	\$35,844	556	81%	\$41,637	550	80%	\$45,096
Health Sciences	20,765	4,893	4,476	91%	\$39,413	4,396	90%	\$44,741	4,259	87%	\$46,592	4,159	85%	\$46,934
Industrial Technologies	3,846	551	470	85%	\$32,204	461	84%	\$38,704	459	83%	\$43,008	437	79%	\$46,380
Public Service Technologies	22,242	2,749	2,249	82%	\$20,106	2,204	80%	\$23,434	2,173	79%	\$26,508	2,136	78%	\$28,382
Transportation Systems Technologies	4,366	550	444	81%	\$27,407	440	80%	\$32,060	432	79%	\$35,942	422	77%	\$39,889

**Table 3. CTE Associate Degree Program Outcomes by Program Area, 2016-2017 Graduates**

North Carolina Community College System Associate Degree Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>										
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017											
	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	1,500	319	248	78%	\$19,454	228	71%	\$25,256	216	68%	\$27,022	
Biological and Chemical Technologies	536	87	75	86%	\$20,185	67	77%	\$26,851	71	82%	\$29,547	
Business Technologies	36,619	4,525	3,606	80%	\$22,965	3,576	79%	\$28,323	3,477	77%	\$30,761	
Commercial and Artistic Production Technologies	2,710	397	299	75%	\$14,764	297	75%	\$17,796	274	69%	\$22,316	
Construction Technologies	2,829	444	363	82%	\$31,992	358	81%	\$38,457	351	79%	\$43,528	
Engineering Technologies	4,674	677	577	85%	\$31,511	560	83%	\$38,929	552	82%	\$42,523	
Health Sciences	19,988	4,756	4,352	92%	\$40,334	4,290	90%	\$46,538	4,207	88%	\$46,638	
Industrial Technologies	3,587	619	529	85%	\$34,755	497	80%	\$41,812	481	78%	\$45,756	
Public Service Technologies	20,135	2,608	2,126	82%	\$20,063	2,085	80%	\$23,663	2,053	79%	\$26,098	
Transportation Systems Technologies	4,114	633	532	84%	\$28,426	523	83%	\$33,242	517	82%	\$38,278	

**Table 4. CTE Associate Degree Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

North Carolina Community College System Associate Degree Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2017-2018									Program Year 2018-2019			
	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	1,465	282	224	79%	\$20,566	212	75%	\$26,430	1,375	298	230	77%	\$22,112
Biological and Chemical Technologies	506	74	67	91%	\$25,301	64	86%	\$30,961	497	92	74	80%	\$22,755
Business Technologies	34,372	4,383	3,486	80%	\$24,209	3,443	79%	\$28,718	32,895	4,144	3,264	79%	\$25,758
Commercial and Artistic Production Technologies	2,660	433	315	73%	\$15,325	310	72%	\$17,206	2,570	375	280	75%	\$15,936
Construction Technologies	2,779	451	371	82%	\$33,249	360	80%	\$38,236	2,774	381	308	81%	\$33,829
Engineering Technologies	4,458	681	600	88%	\$31,707	572	84%	\$38,946	4,308	601	520	87%	\$35,893
Health Sciences	19,724	5,050	4,632	92%	\$42,135	4,531	90%	\$46,593	19,341	4,821	4,407	91%	\$43,431
Industrial Technologies	3,498	610	524	86%	\$36,061	509	83%	\$41,604	3,449	573	475	83%	\$36,155
Public Service Technologies	18,502	2,478	2,046	83%	\$21,559	1,986	80%	\$24,190	17,183	2,273	1,889	83%	\$21,546
Transportation Systems Technologies	3,762	625	519	83%	\$28,221	491	79%	\$33,898	3,444	539	444	82%	\$29,050

**Table 5. CTE Diploma Program Outcomes by Program Area, 2014-2015 Graduates**

North Carolina Community College System Postsecondary Diploma Programs		Common Follow-up System: Evaluative Measures, 2021 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 2014-2015																
	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	208	25	20	80%	\$13,632	16	64%	\$12,714	17	68%	\$19,791	14	56%	\$27,907	14	56%	\$21,766
Biological and Chemical Technologies	194	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Business Technologies	2,613	751	597	79%	\$19,884	603	80%	\$23,115	586	78%	\$26,519	575	77%	\$29,591	557	74%	\$31,905
Commercial and Artistic Production Technologies	318	53	39	74%	\$11,817	41	77%	\$11,428	36	68%	\$19,126	33	62%	\$25,037	32	60%	\$20,724
Construction Technologies	1,445	333	248	74%	\$24,195	243	73%	\$30,378	232	70%	\$33,292	234	70%	\$36,823	228	68%	\$40,661
Engineering Technologies	622	59	44	75%	\$20,716	44	75%	\$33,907	43	73%	\$33,866	42	71%	\$40,971	37	63%	\$46,869
Health Sciences	4,390	1,874	1,702	91%	\$26,120	1,653	88%	\$29,464	1,608	86%	\$31,476	1,556	83%	\$34,554	1,533	82%	\$35,456
Industrial Technologies	2,381	387	317	82%	\$24,902	305	79%	\$32,889	297	77%	\$37,738	294	76%	\$40,059	288	74%	\$40,282
Public Service Technologies	3,135	635	464	73%	\$13,660	454	71%	\$16,768	432	68%	\$18,625	428	67%	\$20,605	403	63%	\$21,689
Transportation Systems Technologies	1,055	224	172	77%	\$24,238	170	76%	\$29,758	168	75%	\$31,814	162	72%	\$36,949	159	71%	\$38,334

**Table 6. CTE Diploma Program Outcomes by Program Area, 2015-2016 Graduates**

North Carolina Community College System Postsecondary Diploma Programs		Common Follow-up System: Evaluative Measures Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce													
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2015-2016														
	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	170	17	10	59%	\$11,063	*	*	*	*	*	*	*	*	*	
Biological and Chemical Technologies	275	16	10	63%	\$9,705	*	*	*	*	*	*	*	*	*	
Business Technologies	2,504	649	511	79%	\$21,111	510	79%	\$26,021	502	77%	\$28,845	486	75%	\$32,140	
Commercial and Artistic Production Technologies	332	40	25	63%	\$20,395	18	45%	\$26,247	20	50%	\$26,160	19	48%	\$31,582	
Construction Technologies	1,211	285	231	81%	\$22,860	218	76%	\$32,224	213	75%	\$36,124	209	73%	\$39,222	
Engineering Technologies	544	57	46	81%	\$23,260	48	84%	\$33,138	47	82%	\$41,186	49	86%	\$44,333	
Health Sciences	4,278	1,726	1,545	90%	\$26,640	1,495	87%	\$29,581	1,464	85%	\$33,020	1,435	83%	\$33,999	
Industrial Technologies	2,163	363	307	85%	\$24,875	302	83%	\$32,106	289	80%	\$38,616	283	78%	\$41,083	
Public Service Technologies	2,748	601	451	75%	\$14,363	445	74%	\$18,107	429	71%	\$20,599	417	69%	\$22,614	
Transportation Systems Technologies	928	201	167	83%	\$22,588	164	82%	\$31,410	160	80%	\$36,123	159	79%	\$38,098	

**Table 7. CTE Diploma Program Outcomes by Program Area, 2016-2017 Graduates**

North Carolina Community College System Postsecondary Diploma Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017										
	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	184	34	25	74%	\$16,051	23	68%	\$23,949	26	76%	\$15,635
Biological and Chemical Technologies	326	*	*	*	*	*	*	*	*	*	*
Business Technologies	2,235	652	505	77%	\$22,043	508	78%	\$27,491	507	78%	\$29,761
Commercial and Artistic Production Technologies	271	53	34	64%	\$11,924	35	66%	\$19,238	33	62%	\$18,974
Construction Technologies	1,145	342	256	75%	\$27,366	261	76%	\$34,060	258	75%	\$35,013
Engineering Technologies	421	67	56	84%	\$24,768	59	88%	\$31,507	55	82%	\$42,533
Health Sciences	4,851	1,704	1,562	92%	\$29,030	1,527	90%	\$31,520	1,490	87%	\$32,898
Industrial Technologies	2,111	415	348	84%	\$25,981	339	82%	\$34,073	325	78%	\$37,802
Public Service Technologies	2,433	538	437	81%	\$16,050	413	77%	\$20,485	398	74%	\$22,897
Transportation Systems Technologies	954	258	203	79%	\$23,576	195	76%	\$30,591	184	71%	\$34,026

**Table 8. CTE Diploma Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

North Carolina Community College System Postsecondary Diploma Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2017-2018						Program Year 2018-2019						
	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	252	27	21	78%	\$24,709	19	70%	\$19,165	310	46	32	70%	\$19,349
Biological and Chemical Technologies	371	*	*	*	*	*	*	*	169	*	*	*	*
Business Technologies	2,186	766	613	80%	\$21,828	604	79%	\$26,696	2,605	793	627	79%	\$24,150
Commercial and Artistic Production Technologies	206	36	27	75%	\$16,442	24	67%	\$14,296	250	60	43	72%	\$15,089
Construction Technologies	1,134	353	277	78%	\$29,159	271	77%	\$34,327	1,116	301	247	82%	\$29,762
Engineering Technologies	505	109	85	78%	\$28,008	81	74%	\$34,411	492	124	108	87%	\$30,991
Health Sciences	5,184	1,721	1,583	92%	\$29,131	1,547	90%	\$30,593	4,826	1,681	1,529	91%	\$29,058
Industrial Technologies	1,830	406	350	86%	\$28,691	335	83%	\$35,405	1,695	340	274	81%	\$29,508
Public Service Technologies	2,485	636	509	80%	\$15,604	472	74%	\$18,744	2,707	621	485	78%	\$16,492
Transportation Systems Technologies	915	249	193	78%	\$23,922	182	73%	\$30,632	905	261	213	82%	\$27,662

**Table 9. CTE Certificate Program Outcomes by Program Area, 2014-2015 Graduates**

North Carolina Community College System Postsecondary Certificate Programs		Common Follow-up System: Evaluative Measures, 2021 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 2014-2015																
	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	338	212	147	69%	\$15,507	150	71%	\$21,746	144	68%	\$26,458	149	70%	\$29,469	138	65%	\$32,782
Biological and Chemical Technologies	53	54	42	78%	\$29,201	36	67%	\$45,508	37	69%	\$47,448	41	76%	\$55,480	41	76%	\$59,159
Business Technologies	6,646	5,396	3,967	74%	\$20,712	4,100	76%	\$24,719	4,033	75%	\$28,356	3,979	74%	\$31,232	3,909	72%	\$33,533
Commercial and Artistic Production Technologies	560	400	254	64%	\$11,391	253	63%	\$17,052	250	63%	\$21,647	251	63%	\$24,892	234	59%	\$29,082
Construction Technologies	1,315	1,264	844	67%	\$24,641	872	69%	\$31,960	850	67%	\$35,983	844	67%	\$39,812	828	66%	\$42,407
Engineering Technologies	768	528	396	75%	\$23,397	384	73%	\$31,182	381	72%	\$37,701	370	70%	\$42,509	361	68%	\$46,879
Health Sciences	2,365	901	741	82%	\$16,061	735	82%	\$20,711	718	80%	\$24,256	683	76%	\$27,189	660	73%	\$29,229
Industrial Technologies	1,917	1,289	1,040	81%	\$21,136	1,057	82%	\$28,618	1,015	79%	\$35,271	1,002	78%	\$38,890	975	76%	\$41,671
Public Service Technologies	7,233	4,692	3,784	81%	\$21,751	3,759	80%	\$26,867	3,677	78%	\$29,986	3,644	78%	\$32,048	3,549	76%	\$34,445
Transportation Systems Technologies	1,368	1,169	878	75%	\$20,924	888	76%	\$26,627	891	76%	\$29,823	854	73%	\$35,580	840	72%	\$37,197

**Table 10. CTE Certificate Program Outcomes by Program Area, 2015-2016 Graduates**

North Carolina Community College System Postsecondary Certificate Programs		Common Follow-up System: Evaluative Measures Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce													
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2015-2016														
	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	349	244	169	69%	\$13,239	162	66%	\$16,997	157	64%	\$22,784	153	63%	\$27,292	
Biological and Chemical Technologies	70	61	43	70%	\$25,081	43	70%	\$35,449	42	69%	\$40,118	41	67%	\$45,473	
Business Technologies	6,988	5,380	3,640	68%	\$20,001	3,671	68%	\$24,991	3,623	67%	\$28,213	3,589	67%	\$30,883	
Commercial and Artistic Production Technologies	673	465	325	70%	\$12,429	334	72%	\$17,530	346	74%	\$21,019	323	69%	\$24,158	
Construction Technologies	1,282	1,161	779	67%	\$24,421	798	69%	\$32,279	789	68%	\$38,486	800	69%	\$43,351	
Engineering Technologies	731	459	362	79%	\$23,065	367	80%	\$33,739	362	79%	\$40,685	355	77%	\$43,444	
Health Sciences	2,702	1,037	816	79%	\$16,032	813	78%	\$19,764	803	77%	\$23,268	784	76%	\$25,303	
Industrial Technologies	2,225	1,682	1,318	78%	\$22,136	1,309	78%	\$31,324	1,290	77%	\$38,164	1,248	74%	\$40,576	
Public Service Technologies	7,373	4,312	3,298	76%	\$20,418	3,257	76%	\$25,031	3,211	74%	\$27,833	3,171	74%	\$30,485	
Transportation Systems Technologies	1,429	1,067	840	79%	\$18,772	818	77%	\$27,070	801	75%	\$32,703	764	72%	\$37,505	

**Table 11. CTE Certificate Program Outcomes by Program Area, 2016-2017 Graduates**

North Carolina Community College System Postsecondary Certificate Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017										
	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	453	246	184	75%	\$16,510	177	72%	\$20,049	156	63%	\$26,424
Biological and Chemical Technologies	86	78	64	82%	\$32,708	63	81%	\$38,490	67	86%	\$37,402
Business Technologies	8,041	6,207	4,556	73%	\$22,256	4,634	75%	\$26,731	4,547	73%	\$30,666
Commercial and Artistic Production Technologies	650	539	372	69%	\$13,456	376	70%	\$19,409	362	67%	\$22,298
Construction Technologies	1,508	1,252	830	66%	\$23,732	852	68%	\$32,540	847	68%	\$35,299
Engineering Technologies	910	640	527	82%	\$23,004	531	83%	\$34,620	524	82%	\$40,548
Health Sciences	2,991	1,063	885	83%	\$17,213	875	82%	\$21,992	858	81%	\$24,343
Industrial Technologies	2,652	1,430	1,143	80%	\$22,145	1,145	80%	\$32,931	1,101	77%	\$36,504
Public Service Technologies	7,928	4,740	3,793	80%	\$21,444	3,769	80%	\$25,784	3,700	78%	\$27,869
Transportation Systems Technologies	1,446	1,118	879	79%	\$21,379	866	77%	\$28,519	831	74%	\$34,283

**Table 12. CTE Certificate Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

North Carolina Community College System Postsecondary Certificate Programs		Common Follow-up System: Evaluative Measures <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2017-2018						Program Year 2018-2019						
	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	430	276	191	69%	\$14,800	192	70%	\$20,789	553	290	211	73%	\$15,535
Biological and Chemical Technologies	130	75	57	76%	\$29,305	62	83%	\$28,859	126	50	41	82%	\$26,816
Business Technologies	8,410	6,656	4,984	75%	\$22,783	4,990	75%	\$27,843	9,144	5,940	4,476	75%	\$24,074
Commercial and Artistic Production Technologies	754	570	372	65%	\$13,889	377	66%	\$16,674	638	405	278	69%	\$13,372
Construction Technologies	1,475	1,278	878	69%	\$30,328	879	69%	\$37,069	1,638	1,113	771	69%	\$29,023
Engineering Technologies	1,075	711	580	82%	\$24,057	573	81%	\$34,088	1,173	656	538	82%	\$22,896
Health Sciences	2,958	1,119	879	79%	\$15,783	883	79%	\$20,682	2,816	1,042	833	80%	\$17,094
Industrial Technologies	2,725	1,581	1,290	82%	\$21,893	1,277	81%	\$31,807	2,925	1,334	1,051	79%	\$22,282
Public Service Technologies	8,169	4,614	3,683	80%	\$21,684	3,629	79%	\$24,940	8,483	3,905	3,165	81%	\$21,050
Transportation Systems Technologies	1,523	1,131	860	76%	\$22,684	830	73%	\$29,620	1,679	1,144	920	80%	\$23,456

# University of North Carolina System Appendix

**Table 13. UNC Bachelor's Degree Program Outcomes by Program Area, 2014-2015 Graduates**

University Of North Carolina System Bachelor's Degree Programs			Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Parti cipants	Degree Recipients	Program Year 2014-2015														
			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	1,289	439	359	82%	\$23,022	335	76%	\$32,240	320	73%	\$34,982	305	69%	\$41,448	299	68%	\$45,796
Natural Resources and Conservation	1,561	494	344	70%	\$15,388	298	60%	\$23,751	260	53%	\$30,020	265	54%	\$34,985	255	52%	\$38,000
Architecture and Related Services	317	150	101	67%	\$18,979	93	62%	\$40,586	90	60%	\$46,008	89	59%	\$51,026	85	57%	\$54,017
Area, Ethnic, Cultural, Gender, and Group Studies	736	276	174	63%	\$13,982	152	55%	\$19,121	152	55%	\$23,433	138	50%	\$30,822	137	50%	\$34,971
Communication, Journalism, and Related Programs	6,096	2,280	1,697	74%	\$18,136	1,504	66%	\$28,608	1,410	62%	\$33,467	1,350	59%	\$37,318	1,306	57%	\$40,917
Computer and Information Sciences and Support Services	3,779	926	693	75%	\$43,769	660	71%	\$57,566	642	69%	\$65,056	629	68%	\$71,823	610	66%	\$79,152
Education	7,925	2,385	2,119	89%	\$36,131	2,075	87%	\$38,442	2,021	85%	\$39,674	1,962	82%	\$41,417	1,921	81%	\$42,689
Engineering	6,843	1,806	1,203	67%	\$42,414	1,081	60%	\$53,676	1,042	58%	\$59,084	1,015	56%	\$65,250	989	55%	\$71,741
Engineering Technologies and Engineering-Related Fields	2,289	581	451	78%	\$35,296	427	73%	\$47,138	428	74%	\$52,123	418	72%	\$58,797	413	71%	\$63,876
Foreign Languages, Literatures, and Linguistics	1,049	401	303	76%	\$13,544	266	66%	\$22,395	254	63%	\$27,532	236	59%	\$34,218	224	56%	\$36,245
Family and Consumer Sciences/Human Sciences	1,631	543	447	82%	\$18,640	422	78%	\$24,278	402	74%	\$27,593	396	73%	\$31,222	393	72%	\$34,670
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	2,153	777	582	75%	\$15,355	531	68%	\$22,254	506	65%	\$27,249	502	65%	\$30,654	476	61%	\$37,436
Liberal Arts and Sciences, General Studies, and Humanities	1,626	478	371	78%	\$18,497	349	73%	\$24,977	335	70%	\$29,145	334	70%	\$33,537	331	69%	\$37,986
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	8,022	2,357	1,717	73%	\$15,620	1,545	66%	\$21,821	1,415	60%	\$26,956	1,355	57%	\$34,256	1,346	57%	\$41,745
Mathematics and Statistics	1,440	463	324	70%	\$21,991	309	67%	\$37,021	302	65%	\$41,688	285	62%	\$45,860	285	62%	\$48,267
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	1,387	427	298	70%	\$15,765	264	62%	\$23,529	246	58%	\$29,775	238	56%	\$35,895	234	55%	\$40,070
Parks, Recreation, Leisure, and Fitness Studies	5,559	1,658	1,288	78%	\$14,449	1,153	70%	\$21,234	1,068	64%	\$27,427	1,056	64%	\$33,095	1,049	63%	\$39,314
Philosophy and Religious Studies	554	208	139	67%	\$11,637	118	57%	\$19,263	122	59%	\$22,282	112	54%	\$29,855	107	51%	\$34,180
Physical Sciences	3,202	837	568	68%	\$14,664	490	59%	\$27,040	456	54%	\$33,124	436	52%	\$40,161	429	51%	\$45,856
Science Technologies/Technicians	36	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	6,638	2,427	1,867	77%	\$14,816	1,715	71%	\$21,057	1,637	67%	\$25,247	1,595	66%	\$30,108	1,536	63%	\$35,125
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	3,855	1,283	1,075	84%	\$20,478	1,019	79%	\$31,869	995	78%	\$35,513	958	75%	\$38,958	934	73%	\$42,061
Public Administration and Social Service Professions	2,555	895	692	77%	\$17,027	703	79%	\$28,435	689	77%	\$36,133	683	76%	\$39,798	662	74%	\$41,061
Social Sciences	7,129	2,759	2,002	73%	\$17,266	1,817	66%	\$25,602	1,746	63%	\$31,124	1,697	62%	\$35,439	1,638	59%	\$40,003
Transportation and Materials Moving	40	18	*	*	*	10	56%	\$16,446	10	56%	\$20,951	11	61%	\$19,285	*	*	*
Visual and Performing Arts	4,959	1,638	1,077	66%	\$13,021	953	58%	\$20,258	905	55%	\$24,311	852	52%	\$29,099	835	51%	\$31,053
Health Professions and Related Programs	10,949	3,860	3,270	85%	\$42,799	3,113	81%	\$49,581	3,007	78%	\$51,359	2,914	75%	\$53,454	2,865	74%	\$56,157
Business, Management, Marketing, and Related Support Services	16,503	5,219	4,008	77%	\$27,814	3,841	74%	\$39,182	3,702	71%	\$45,470	3,597	69%	\$49,569	3,500	67%	\$54,753
History	1,700	640	477	75%	\$14,539	439	69%	\$23,304	428	67%	\$30,413	432	68%	\$34,058	422	66%	\$38,519

**Table 14. UNC Bachelor's Degree Program Outcomes by Program Area, 2015-2016 Graduates**

University Of North Carolina System Bachelor's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2015-2016													
	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	2,212	396	310	78%	\$23,447	292	74%	\$31,478	281	71%	\$36,551	272	69%	\$39,083
Natural Resources and Conservation	2,371	541	387	72%	\$15,302	343	63%	\$24,121	320	59%	\$30,104	306	57%	\$36,353
Architecture and Related Services	475	128	97	76%	\$22,154	88	69%	\$41,748	81	63%	\$48,548	79	62%	\$52,200
Area, Ethnic, Cultural, Gender, and Group Studies	946	290	176	61%	\$12,783	161	56%	\$15,915	138	48%	\$25,841	139	48%	\$30,618
Communication, Journalism, and Related Programs	9,443	2,306	1,667	72%	\$18,373	1,462	63%	\$28,729	1,389	60%	\$33,903	1,340	58%	\$38,195
Computer and Information Sciences and Support Services	6,505	1,074	823	77%	\$41,955	777	72%	\$55,743	765	71%	\$62,884	737	69%	\$72,048
Education	11,454	2,040	1,793	88%	\$35,315	1,725	85%	\$38,700	1,670	82%	\$40,130	1,600	78%	\$41,380
Engineering	11,258	2,040	1,381	68%	\$43,185	1,262	62%	\$55,383	1,237	61%	\$62,949	1,206	59%	\$68,561
Engineering Technologies and Engineering-Related Fields	3,443	620	515	83%	\$38,944	491	79%	\$49,466	481	78%	\$54,382	481	78%	\$58,191
Foreign Languages, Literatures, and Linguistics	1,217	420	312	74%	\$17,281	280	67%	\$23,018	274	65%	\$28,291	254	60%	\$35,234
Family and Consumer Sciences/Human Sciences	2,673	548	450	82%	\$19,968	422	77%	\$25,268	421	77%	\$29,603	409	75%	\$32,076
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	2,981	750	564	75%	\$15,732	515	69%	\$22,727	503	67%	\$27,723	491	65%	\$31,385
Liberal Arts and Sciences, General Studies, and Humanities	15,945	570	436	76%	\$19,910	416	73%	\$26,490	405	71%	\$31,529	391	69%	\$36,223
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	14,181	2,466	1,830	74%	\$17,007	1,626	66%	\$22,497	1,448	59%	\$28,376	1,375	56%	\$35,150
Mathematics and Statistics	2,064	483	342	71%	\$30,126	328	68%	\$39,622	319	66%	\$43,797	298	62%	\$47,480
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	1,923	469	342	73%	\$18,669	303	65%	\$27,343	284	61%	\$31,705	266	57%	\$35,778
Parks, Recreation, Leisure, and Fitness Studies	9,470	1,933	1,501	78%	\$15,403	1,358	70%	\$22,815	1,285	66%	\$28,882	1,267	66%	\$34,096
Philosophy and Religious Studies	667	198	132	67%	\$14,155	118	60%	\$21,109	109	55%	\$25,744	107	54%	\$27,246
Physical Sciences	4,925	826	554	67%	\$17,433	474	57%	\$27,340	452	55%	\$34,310	414	50%	\$39,629
Science Technologies/Technicians	50	11	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	9,879	2,395	1,880	78%	\$16,091	1,746	73%	\$21,394	1,695	71%	\$25,573	1,633	68%	\$32,165
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	5,692	1,277	1,062	83%	\$20,677	993	78%	\$31,029	971	76%	\$36,253	934	73%	\$39,556
Public Administration and Social Service Professions	3,818	898	701	78%	\$17,385	693	77%	\$28,840	685	76%	\$35,669	671	75%	\$39,630
Social Sciences	9,574	2,527	1,875	74%	\$17,604	1,680	66%	\$26,607	1,599	63%	\$32,734	1,551	61%	\$37,934
Transportation and Materials Moving	55	14	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	8,390	1,588	1,077	68%	\$13,663	972	61%	\$20,846	903	57%	\$25,857	861	54%	\$29,674
Health Professions and Related Programs	17,624	3,993	3,381	85%	\$44,430	3,218	81%	\$50,492	3,139	79%	\$52,532	3,051	76%	\$54,993
Business, Management, Marketing, and Related Support Services	27,126	5,416	4,164	77%	\$29,077	4,001	74%	\$39,072	3,830	71%	\$46,290	3,720	69%	\$50,985
History	2,056	583	447	77%	\$16,125	410	70%	\$23,254	399	68%	\$28,843	385	66%	\$34,197



**Table 15. UNC Bachelor's Degree Program Outcomes by Program Area, 2016-2017 Graduates**

University Of North Carolina System Bachelor's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2016-2017										
		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		2,249	471	373	79%	\$22,265	363	77%	\$32,549	348	74%	\$37,120
Natural Resources and Conservation		2,520	544	394	72%	\$15,339	361	66%	\$23,782	323	59%	\$36,247
Architecture and Related Services		454	116	89	77%	\$17,585	79	68%	\$41,973	78	67%	\$49,791
Area, Ethnic, Cultural, Gender, and Group Studies		919	243	153	63%	\$15,039	136	56%	\$19,267	132	54%	\$21,260
Communication, Journalism, and Related Programs		9,944	2,427	1,771	73%	\$18,919	1,605	66%	\$28,651	1,519	63%	\$34,032
Computer and Information Sciences and Support Services		7,007	1,127	839	74%	\$42,078	797	71%	\$58,982	773	69%	\$67,540
Education		10,793	2,036	1,802	89%	\$35,767	1,733	85%	\$39,000	1,672	82%	\$40,416
Engineering		11,198	2,088	1,426	68%	\$45,124	1,324	63%	\$57,999	1,277	61%	\$64,688
Engineering Technologies and Engineering-Related Fields		3,535	613	495	81%	\$41,880	476	78%	\$51,454	462	75%	\$57,550
Foreign Languages, Literatures, and Linguistics		1,163	410	314	77%	\$14,133	273	67%	\$20,907	262	64%	\$25,451
Family and Consumer Sciences/Human Sciences		2,766	555	474	85%	\$20,153	441	79%	\$25,820	416	75%	\$29,293
Legal Professions and Studies		*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters		2,851	739	570	77%	\$15,601	521	71%	\$22,442	516	70%	\$27,083
Liberal Arts and Sciences, General Studies, and Humanities		19,682	657	517	79%	\$21,749	484	74%	\$27,267	475	72%	\$30,965
Library Science		*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences		14,845	2,604	1,991	76%	\$17,079	1,790	69%	\$23,838	1,621	62%	\$28,539
Mathematics and Statistics		2,164	467	321	69%	\$24,349	300	64%	\$38,980	291	62%	\$42,887
Military Technologies and Applied Sciences		*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies		1,936	484	326	67%	\$18,159	300	62%	\$26,490	277	57%	\$30,383
Parks, Recreation, Leisure, and Fitness Studies		9,640	2,024	1,573	78%	\$15,659	1,412	70%	\$22,807	1,348	67%	\$27,206
Philosophy and Religious Studies		624	164	121	74%	\$14,301	104	63%	\$21,935	94	57%	\$26,489
Physical Sciences		4,724	910	625	69%	\$15,980	543	60%	\$26,335	499	55%	\$36,256
Science Technologies/Technicians		43	12	*	*	*	*	*	*	*	*	*
Psychology		10,119	2,385	1,816	76%	\$16,436	1,668	70%	\$22,537	1,606	67%	\$27,407
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services		5,635	1,268	1,046	82%	\$22,989	993	78%	\$33,966	966	76%	\$38,358
Public Administration and Social Service Professions		3,883	856	659	77%	\$17,775	649	76%	\$27,507	630	74%	\$34,786
Social Sciences		10,059	2,528	1,854	73%	\$18,130	1,692	67%	\$26,659	1,585	63%	\$32,446
Transportation and Materials Moving		49	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts		8,437	1,633	1,099	67%	\$12,912	948	58%	\$20,134	852	52%	\$25,420
Health Professions and Related Programs		20,303	4,427	3,803	86%	\$45,725	3,577	81%	\$52,794	3,464	78%	\$54,244
Business, Management, Marketing, and Related Support Services		28,553	5,919	4,575	77%	\$28,832	4,407	74%	\$40,251	4,225	71%	\$47,486
History		1,999	531	408	77%	\$16,569	380	72%	\$25,399	381	72%	\$30,900

**Table 16. UNC Bachelor's Degree Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

University Of North Carolina System Bachelor's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2017-2018									Program Year 2018-2019					
	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	2,356	513	423	82%	\$24,248	392	76%	\$32,737	2,484	509	401	79%	\$25,309		
Natural Resources and Conservation	2,688	627	453	72%	\$16,236	404	64%	\$26,793	2,780	644	454	70%	\$17,826		
Architecture and Related Services	455	118	83	70%	\$27,645	81	69%	\$44,666	476	114	82	72%	\$17,586		
Area, Ethnic, Cultural, Gender, and Group Studies	843	220	145	66%	\$12,904	120	55%	\$20,555	806	211	150	71%	\$12,761		
Communication, Journalism, and Related Programs	9,983	2,506	1,876	75%	\$19,619	1,688	67%	\$29,038	9,801	2,419	1,775	73%	\$20,532		
Computer and Information Sciences and Support Services	8,144	1,410	1,111	79%	\$44,149	1,073	76%	\$60,887	9,123	1,609	1,210	75%	\$46,143		
Education	10,609	1,831	1,607	88%	\$36,070	1,557	85%	\$38,941	10,485	1,840	1,619	88%	\$35,997		
Engineering	11,211	2,094	1,365	65%	\$48,244	1,279	61%	\$60,121	11,443	2,143	1,484	69%	\$49,874		
Engineering Technologies and Engineering-Related Fields	3,765	645	529	82%	\$46,104	503	78%	\$55,284	3,936	738	595	81%	\$47,493		
Foreign Languages, Literatures, and Linguistics	1,106	397	296	75%	\$18,181	276	70%	\$20,809	1,095	423	310	73%	\$16,345		
Family and Consumer Sciences/Human Sciences	2,608	567	457	81%	\$22,053	424	75%	\$28,459	2,608	614	514	84%	\$20,944		
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*		
English Language and Literature/Letters	2,837	745	569	76%	\$17,174	532	71%	\$25,917	2,898	738	554	75%	\$16,058		
Liberal Arts and Sciences, General Studies, and Humanities	19,499	737	548	74%	\$22,430	510	69%	\$28,806	18,478	720	543	75%	\$22,738		
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*		
Biological and Biomedical Sciences	15,016	2,431	1,842	76%	\$18,293	1,619	67%	\$25,242	15,578	2,571	1,941	75%	\$17,362		
Mathematics and Statistics	2,210	564	396	70%	\$25,642	374	66%	\$40,233	2,175	535	363	68%	\$25,397		
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*		
Multi/Interdisciplinary Studies	1,936	495	369	75%	\$18,055	329	66%	\$28,303	2,241	508	369	73%	\$21,221		
Parks, Recreation, Leisure, and Fitness Studies	9,729	2,027	1,569	77%	\$16,693	1,424	70%	\$23,256	9,817	1,917	1,498	78%	\$16,880		
Philosophy and Religious Studies	664	168	109	65%	\$15,297	97	58%	\$25,777	688	191	138	72%	\$15,466		
Physical Sciences	4,690	835	578	69%	\$17,971	494	59%	\$31,133	4,654	801	550	69%	\$18,687		
Science Technologies/Technicians	49	16	14	88%	\$49,642	16	100%	\$55,043	56	16	16	100%	\$47,159		
Psychology	10,186	2,378	1,851	78%	\$16,923	1,649	69%	\$23,968	10,551	2,379	1,837	77%	\$16,961		
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	5,538	1,227	1,000	81%	\$22,744	936	76%	\$34,784	5,635	1,129	938	83%	\$23,535		
Public Administration and Social Service Professions	3,942	923	715	77%	\$18,829	702	76%	\$30,475	3,906	907	676	75%	\$18,167		
Social Sciences	10,427	2,656	1,887	71%	\$18,332	1,719	65%	\$27,442	10,404	2,672	1,927	72%	\$19,043		
Transportation and Materials Moving	56	*	*	*	*	*	*	*	*	*	*	*	*		
Visual and Performing Arts	8,638	1,683	1,153	69%	\$13,846	971	58%	\$21,548	8,907	1,708	1,191	70%	\$14,372		
Health Professions and Related Programs	20,321	4,323	3,707	86%	\$47,322	3,512	81%	\$53,661	21,174	4,585	3,932	86%	\$48,746		
Business, Management, Marketing, and Related Support Services	29,096	5,939	4,571	77%	\$29,416	4,339	73%	\$40,969	29,789	6,193	4,780	77%	\$31,506		
History	2,044	525	393	75%	\$18,215	368	70%	\$22,993	2,068	504	373	74%	\$16,145		

**Table 17. UNC Master's Degree Program Outcomes by Program Area, 2014-2015 Graduates**

University Of North Carolina System Master's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2014-2015																
		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	274	74	53	72%	\$22,472	46	62%	\$40,211	47	64%	\$41,361	46	62%	\$43,575	37	50%	\$53,600	
Natural Resources and Conservation	282	89	53	60%	\$19,869	49	55%	\$34,505	45	51%	\$35,143	39	44%	\$41,171	38	43%	\$44,815	
Architecture and Related Services	256	107	72	67%	\$34,645	61	57%	\$45,682	56	52%	\$53,898	58	54%	\$59,440	60	56%	\$59,128	
Area, Ethnic, Cultural, Gender, and Group Studies	64	20	13	65%	\$11,097	10	50%	\$22,320	11	55%	\$27,506	12	60%	\$31,959	10	50%	\$45,115	
Communication, Journalism, and Related Programs	188	70	51	73%	\$41,619	47	67%	\$47,474	44	63%	\$55,495	45	64%	\$60,601	44	63%	\$61,721	
Computer and Information Sciences and Support Services	818	337	236	70%	\$72,338	227	67%	\$77,292	214	64%	\$83,589	205	61%	\$89,426	200	59%	\$96,514	
Education	5,281	1,822	1,601	88%	\$42,810	1,514	83%	\$45,793	1,464	80%	\$47,671	1,427	78%	\$51,711	1,381	76%	\$54,184	
Engineering	1,377	435	227	52%	\$50,738	202	46%	\$63,459	194	45%	\$67,428	181	42%	\$75,237	176	40%	\$83,319	
Engineering Technologies and Engineering-Related Fields	315	89	57	64%	\$56,032	56	63%	\$68,126	56	63%	\$70,962	54	61%	\$73,803	49	55%	\$78,179	
Foreign Languages, Literatures, and Linguistics	114	57	40	70%	\$24,471	37	65%	\$33,651	35	61%	\$36,448	33	58%	\$39,741	30	53%	\$39,098	
Family and Consumer Sciences/Human Sciences	250	80	53	66%	\$32,742	52	65%	\$38,910	48	60%	\$44,792	48	60%	\$45,988	43	54%	\$49,505	
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
English Language and Literature/Letters	588	224	150	67%	\$22,476	138	62%	\$33,288	119	53%	\$38,386	111	50%	\$43,322	104	46%	\$46,983	
Liberal Arts and Sciences, General Studies, and Humanities	299	86	52	60%	\$33,840	51	59%	\$35,702	48	56%	\$38,475	44	51%	\$44,749	44	51%	\$45,977	
Library Science	939	295	229	78%	\$39,135	212	72%	\$43,195	212	72%	\$46,058	205	69%	\$49,096	206	70%	\$51,377	
Biological and Biomedical Sciences	851	262	177	68%	\$28,945	161	61%	\$37,457	145	55%	\$46,336	134	51%	\$53,952	133	51%	\$58,816	
Mathematics and Statistics	285	138	94	68%	\$22,916	83	60%	\$36,347	69	50%	\$57,600	62	45%	\$66,832	57	41%	\$70,477	
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Multi/Interdisciplinary Studies	508	149	83	56%	\$23,330	78	52%	\$40,533	79	53%	\$42,240	75	50%	\$42,725	72	48%	\$46,677	
Parks, Recreation, Leisure, and Fitness Studies	414	133	94	71%	\$29,095	76	57%	\$41,072	75	56%	\$42,798	75	56%	\$46,465	70	53%	\$48,260	
Philosophy and Religious Studies	38	14	13	93%	\$19,151	12	86%	\$20,783	*	*	*	*	*	*	*	*		
Physical Sciences	571	202	104	51%	\$26,511	89	44%	\$41,807	85	42%	\$44,702	88	44%	\$50,982	84	42%	\$57,000	
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Psychology	407	151	85	56%	\$17,545	70	46%	\$34,054	65	43%	\$38,401	64	42%	\$46,981	63	42%	\$53,191	
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	166	49	36	73%	\$34,642	36	73%	\$40,174	34	69%	\$47,789	35	71%	\$50,515	34	69%	\$52,838	
Public Administration and Social Service Professions	2,273	860	702	82%	\$37,268	671	78%	\$44,116	647	75%	\$46,104	618	72%	\$48,939	595	69%	\$50,709	
Social Sciences	492	190	115	61%	\$23,562	99	52%	\$35,549	94	49%	\$34,493	87	46%	\$40,840	84	44%	\$44,170	
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Visual and Performing Arts	460	158	93	59%	\$15,038	74	47%	\$22,476	73	46%	\$25,441	70	44%	\$30,132	66	42%	\$36,321	
Health Professions and Related Programs	4,274	1,489	1,088	73%	\$52,705	1,020	69%	\$62,727	981	66%	\$66,909	965	65%	\$70,427	949	64%	\$72,770	
Business, Management, Marketing, and Related Support Services	5,312	1,878	1,244	66%	\$52,395	1,181	63%	\$58,632	1,154	61%	\$66,465	1,118	60%	\$74,206	1,085	58%	\$83,558	
History	322	97	59	61%	\$16,621	56	58%	\$19,289	51	53%	\$27,798	46	47%	\$37,049	43	44%	\$38,283	

**Table 18. UNC Master's Degree Program Outcomes by Program Area, 2015-2016 Graduates**

University Of North Carolina System Master's Degree Programs			Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>											
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2015-2016													
	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	264	88	49	56%	\$36,121	44	50%	\$43,770	45	51%	\$49,001	45	51%	\$53,852
Natural Resources and Conservation	245	90	59	66%	\$26,090	48	53%	\$42,074	45	50%	\$45,528	45	50%	\$49,800
Architecture and Related Services	258	85	64	75%	\$40,514	55	65%	\$49,857	49	58%	\$52,252	45	53%	\$56,606
Area, Ethnic, Cultural, Gender, and Group Studies	54	23	14	61%	\$16,034	12	52%	\$14,705	10	43%	\$35,153	10	43%	\$41,238
Communication, Journalism, and Related Programs	205	77	53	69%	\$32,590	42	55%	\$45,113	41	53%	\$40,532	38	49%	\$51,558
Computer and Information Sciences and Support Services	811	354	228	64%	\$66,688	211	60%	\$75,302	203	57%	\$86,194	194	55%	\$94,824
Education	5,518	1,810	1,575	87%	\$43,412	1,518	84%	\$45,774	1,466	81%	\$49,448	1,408	78%	\$52,474
Engineering	1,190	402	194	48%	\$55,553	184	46%	\$65,082	174	43%	\$72,135	168	42%	\$77,395
Engineering Technologies and Engineering-Related Fields	330	110	81	74%	\$60,092	77	70%	\$61,928	75	68%	\$70,423	75	68%	\$75,303
Foreign Languages, Literatures, and Linguistics	80	27	19	70%	\$14,566	19	70%	\$19,100	17	63%	\$33,890	17	63%	\$31,868
Family and Consumer Sciences/Human Sciences	248	82	59	72%	\$35,759	57	70%	\$36,153	54	66%	\$39,142	53	65%	\$43,008
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	530	195	141	72%	\$29,593	118	61%	\$39,944	116	59%	\$37,992	112	57%	\$43,385
Liberal Arts and Sciences, General Studies, and Humanities	268	86	55	64%	\$38,350	56	65%	\$43,742	52	60%	\$48,533	51	59%	\$52,394
Library Science	922	256	196	77%	\$39,511	186	73%	\$43,184	178	70%	\$46,560	174	68%	\$49,166
Biological and Biomedical Sciences	812	300	204	68%	\$24,742	179	60%	\$35,769	163	54%	\$45,040	150	50%	\$49,948
Mathematics and Statistics	258	121	83	69%	\$34,008	70	58%	\$56,660	68	56%	\$55,923	62	51%	\$74,645
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	517	157	93	59%	\$32,717	83	53%	\$42,102	79	50%	\$46,167	70	45%	\$50,367
Parks, Recreation, Leisure, and Fitness Studies	406	169	111	66%	\$28,154	101	60%	\$33,998	96	57%	\$40,901	95	56%	\$42,881
Philosophy and Religious Studies	30	11	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences	491	203	116	57%	\$26,477	100	49%	\$48,244	97	48%	\$51,477	95	47%	\$55,202
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	376	172	99	58%	\$34,985	90	52%	\$44,579	85	49%	\$50,150	80	47%	\$54,845
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	191	34	27	79%	\$29,993	27	79%	\$40,131	26	76%	\$47,579	24	71%	\$52,680
Public Administration and Social Service Professions	2,596	967	819	85%	\$37,833	770	80%	\$43,032	742	77%	\$45,523	700	72%	\$48,897
Social Sciences	423	177	125	71%	\$24,674	112	63%	\$30,046	102	58%	\$35,056	90	51%	\$40,553
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	448	181	106	59%	\$15,547	84	46%	\$22,053	79	44%	\$27,990	79	44%	\$34,196
Health Professions and Related Programs	3,941	1,501	1,125	75%	\$57,346	1,066	71%	\$64,759	1,025	68%	\$70,158	1,009	67%	\$72,784
Business, Management, Marketing, and Related Support Services	5,547	1,823	1,206	66%	\$54,170	1,159	64%	\$59,066	1,108	61%	\$68,037	1,064	58%	\$78,934
History	294	89	60	67%	\$16,713	52	58%	\$27,504	48	54%	\$26,272	40	45%	\$30,517

**Table 19. UNC Master's Degree Program Outcomes by Program Area, 2016-2017 Graduates**

Univerity Of North Carolina System Master's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017										
	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	259	87	50	57%	\$36,613	49	56%	\$40,979	50	57%	\$48,654
Natural Resources and Conservation	222	89	54	61%	\$28,822	44	49%	\$39,063	43	48%	\$43,363
Architecture and Related Services	275	111	71	64%	\$44,625	67	60%	\$53,860	64	58%	\$58,430
Area, Ethnic, Cultural, Gender, and Group Studies	69	21	17	81%	\$17,609	14	67%	\$31,306	11	52%	\$41,460
Communication, Journalism, and Related Programs	176	68	57	84%	\$35,062	46	68%	\$48,592	46	68%	\$51,087
Computer and Information Sciences and Support Services	828	354	241	68%	\$64,123	219	62%	\$80,220	213	60%	\$88,307
Education	5,675	1,975	1,699	86%	\$42,835	1,595	81%	\$46,403	1,554	79%	\$48,898
Engineering	1,071	395	221	56%	\$53,691	198	50%	\$67,053	197	50%	\$70,646
Engineering Technologies and Engineering-Related Fields	300	79	54	68%	\$55,927	50	63%	\$65,946	49	62%	\$73,355
Foreign Languages, Literatures, and Linguistics	105	56	38	68%	\$16,113	36	64%	\$29,161	28	50%	\$35,760
Family and Consumer Sciences/Human Sciences	235	70	49	70%	\$33,333	48	69%	\$40,217	47	67%	\$44,775
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	502	162	101	62%	\$27,385	92	57%	\$35,506	82	51%	\$40,151
Liberal Arts and Sciences, General Studies, and Humanities	239	59	41	69%	\$31,798	40	68%	\$36,522	37	63%	\$39,645
Library Science	935	267	221	83%	\$43,296	201	75%	\$47,527	197	74%	\$50,081
Biological and Biomedical Sciences	843	302	217	72%	\$27,255	185	61%	\$36,144	165	55%	\$42,542
Mathematics and Statistics	320	145	112	77%	\$36,124	101	70%	\$49,613	88	61%	\$66,672
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	548	183	119	65%	\$31,430	99	54%	\$42,229	92	50%	\$46,602
Parks, Recreation, Leisure, and Fitness Studies	427	149	96	64%	\$30,902	87	58%	\$39,551	85	57%	\$42,212
Philosophy and Religious Studies	33	24	21	88%	\$7,594	19	79%	\$10,754	12	50%	\$14,348
Physical Sciences	467	185	111	60%	\$26,246	98	53%	\$42,106	92	50%	\$43,165
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*
Psychology	397	170	104	61%	\$28,874	89	52%	\$40,832	81	48%	\$52,878
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	228	67	54	81%	\$29,071	42	63%	\$38,773	44	66%	\$41,733
Public Administration and Social Service Professions	2,523	979	797	81%	\$38,563	784	80%	\$43,716	772	79%	\$46,605
Social Sciences	457	200	121	61%	\$16,032	116	58%	\$25,947	94	47%	\$34,286
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	448	157	88	56%	\$10,889	79	50%	\$21,864	66	42%	\$25,223
Health Professions and Related Programs	3,980	1,377	1,063	77%	\$53,293	995	72%	\$63,079	963	70%	\$66,633
Business, Management, Marketing, and Related Support Services	6,232	1,971	1,249	63%	\$53,250	1,198	61%	\$60,239	1,146	58%	\$70,825
History	293	91	63	69%	\$25,188	57	63%	\$34,594	56	62%	\$42,016

**Table 20. UNC Master's Degree Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

University Of North Carolina System Master's Degree Programs		Common Follow-up System: Evaluative Measures, 2021 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 2017-2018									Program Year 2018-2019			
	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	226	75	50	67%	\$31,478	47	63%	\$42,089	258	68	47	69%	\$43,743
Natural Resources and Conservation	216	71	50	70%	\$23,800	43	61%	\$34,558	228	80	48	60%	\$20,977
Architecture and Related Services	257	95	52	55%	\$46,443	47	49%	\$52,406	254	104	76	73%	\$49,735
Area, Ethnic, Cultural, Gender, and Group Studies	70	31	21	68%	\$25,539	20	65%	\$26,851	46	20	16	80%	\$24,259
Communication, Journalism, and Related Programs	198	63	51	81%	\$44,727	48	76%	\$52,583	206	100	74	74%	\$30,769
Computer and Information Sciences and Support Services	898	378	260	69%	\$71,451	250	66%	\$84,186	965	419	304	73%	\$67,225
Education	5,581	1,825	1,580	87%	\$44,012	1,525	84%	\$46,739	5,533	1,832	1,560	85%	\$44,309
Engineering	1,030	374	177	47%	\$53,219	165	44%	\$65,218	1,008	391	198	51%	\$64,264
Engineering Technologies and Engineering-Related Fields	300	100	74	74%	\$63,492	70	70%	\$71,641	304	90	60	67%	\$57,992
Foreign Languages, Literatures, and Linguistics	96	53	43	81%	\$22,726	35	66%	\$34,616	103	41	28	68%	\$29,553
Family and Consumer Sciences/Human Sciences	248	92	70	76%	\$34,734	71	77%	\$38,862	218	78	61	78%	\$37,043
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	493	206	145	70%	\$29,997	124	60%	\$36,491	455	159	111	70%	\$27,846
Liberal Arts and Sciences, General Studies, and Humanities	243	78	53	68%	\$38,072	54	69%	\$42,728	221	72	51	71%	\$49,988
Library Science	984	294	238	81%	\$42,228	223	76%	\$45,881	1,072	292	212	73%	\$43,511
Biological and Biomedical Sciences	839	311	215	69%	\$27,866	167	54%	\$41,034	846	319	225	71%	\$27,213
Mathematics and Statistics	352	142	99	70%	\$44,332	95	67%	\$60,620	372	174	121	70%	\$40,818
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	527	155	91	59%	\$31,914	79	51%	\$45,001	550	166	102	61%	\$36,351
Parks, Recreation, Leisure, and Fitness Studies	459	172	111	65%	\$30,366	94	55%	\$38,325	464	168	109	65%	\$34,434
Philosophy and Religious Studies	33	17	12	71%	\$7,434	10	59%	\$9,904	22	11	11	100%	\$6,320
Physical Sciences	461	188	114	61%	\$32,246	97	52%	\$50,707	436	147	92	63%	\$41,120
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	366	160	90	56%	\$18,822	82	51%	\$39,847	356	188	107	57%	\$30,615
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	220	62	55	89%	\$38,984	46	74%	\$43,613	189	67	52	78%	\$35,494
Public Administration and Social Service Professions	2,550	962	787	82%	\$37,802	749	78%	\$43,681	2,703	1,019	850	83%	\$40,111
Social Sciences	458	204	120	59%	\$22,972	107	52%	\$37,890	446	194	124	64%	\$23,720
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	449	195	107	55%	\$16,707	92	47%	\$24,153	433	167	89	53%	\$11,974
Health Professions and Related Programs	4,263	1,471	1,102	75%	\$54,014	1,054	72%	\$62,093	4,433	1,546	1,223	79%	\$58,720
Business, Management, Marketing, and Related Support Services	6,888	2,035	1,258	62%	\$57,870	1,225	60%	\$64,685	7,403	2,342	1,433	61%	\$58,533
History	283	96	63	66%	\$15,190	53	55%	\$31,158	289	104	79	76%	\$19,404

**Table 21. UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2014-2015 Graduates**

University Of North Carolina System Doctoral Degree (Research) Programs		Common Follow-up System: Evaluative Measures, 2021 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 2014-2015																
	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	141	33	19	58%	\$58,427	14	42%	\$67,382	16	48%	\$76,478	16	48%	\$72,439	14	42%	\$75,187
Natural Resources and Conservation	186	41	17	41%	\$38,783	15	37%	\$46,102	12	29%	\$66,223	11	27%	\$89,803	*	*	*
Architecture and Related Services	45	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs	81	13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Computer and Information Sciences and Support Services	345	54	17	31%	\$58,087	13	24%	\$71,911	11	20%	\$105,645	11	20%	\$122,724	12	22%	\$127,619
Education	1,643	250	211	84%	\$65,819	189	76%	\$72,428	189	76%	\$76,533	180	72%	\$81,464	176	70%	\$83,105
Engineering	941	197	81	41%	\$48,335	56	28%	\$71,891	50	25%	\$78,456	47	24%	\$84,492	45	23%	\$88,413
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	139	19	10	53%	\$33,936	*	*	*	*	*	*	*	*	*	*	*	*
Family and Consumer Sciences/Human Sciences	38	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	198	26	16	62%	\$37,149	16	62%	\$42,688	16	62%	\$45,085	14	54%	\$56,471	14	54%	\$50,285
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,317	214	102	48%	\$34,842	77	36%	\$52,849	77	36%	\$65,816	72	34%	\$72,348	72	34%	\$82,091
Mathematics and Statistics	372	62	21	34%	\$80,959	17	27%	\$95,991	18	29%	\$92,541	16	26%	\$101,676	16	26%	\$108,595
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	324	45	33	73%	\$47,215	27	60%	\$65,513	28	62%	\$58,599	26	58%	\$71,499	24	53%	\$66,052
Parks, Recreation, Leisure, and Fitness Studies	68	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Philosophy and Religious Studies	71	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Physical Sciences	728	107	46	43%	\$38,814	36	34%	\$48,935	31	29%	\$54,532	28	26%	\$64,885	29	27%	\$66,801
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	421	65	26	40%	\$43,985	25	38%	\$58,184	22	34%	\$62,965	21	32%	\$71,850	21	32%	\$79,804
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	126	23	11	48%	\$6,575	*	*	*	*	*	*	*	*	*	*	*	*
Social Sciences	480	74	28	38%	\$24,430	19	26%	\$37,608	16	22%	\$65,518	13	18%	\$67,733	13	18%	\$69,546
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	130	27	23	85%	\$22,359	22	81%	\$22,227	20	74%	\$38,662	20	74%	\$35,120	17	63%	\$46,125
Health Professions and Related Programs	600	100	57	57%	\$54,118	51	51%	\$71,208	49	49%	\$91,653	48	48%	\$96,650	49	49%	\$91,524
Business, Management, Marketing, and Related Support Services	82	15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
History	143	13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

**Table 22. UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2015-2016 Graduates**

University Of North Carolina System Doctoral Degree (Research) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>													
Post-Completion Outcome Employment and Wage Measures by Program Area		Program Year 2015-2016													
		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	118	20	*	*	*	*	*	*	*	*	*	*	*	*	*
Natural Resources and Conservation	163	31	21	68%	\$31,266	12	39%	\$54,827	13	42%	\$61,733	13	42%	\$86,394	
Architecture and Related Services	42	*	*	*	*	*	*	*	*	*	*	*	*	*	
Area, Ethnic, Cultural, Gender, and Group Studies	13	*	*	*	*	*	*	*	*	*	*	*	*	*	
Communication, Journalism, and Related Programs	71	15	11	73%	\$18,449	*	*	*	*	*	*	*	*	*	
Computer and Information Sciences and Support Services	293	57	16	28%	\$100,297	15	26%	\$91,142	13	23%	\$111,608	12	21%	\$132,808	
Education	1,572	237	188	79%	\$63,157	180	76%	\$67,212	174	73%	\$72,852	165	70%	\$77,735	
Engineering	760	177	75	42%	\$44,056	63	36%	\$67,145	54	31%	\$87,926	51	29%	\$96,503	
Engineering Technologies and Engineering-Related Fields	15	*	*	*	*	*	*	*	*	*	*	*	*	*	
Foreign Languages, Literatures, and Linguistics	133	31	16	52%	\$34,191	11	35%	\$42,029	*	*	*	*	*	*	
Family and Consumer Sciences/Human Sciences	34	12	*	*	*	*	*	*	*	*	*	*	*	*	
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
English Language and Literature/Letters	193	28	17	61%	\$37,483	13	46%	\$45,713	13	46%	\$47,142	12	43%	\$52,466	
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Biological and Biomedical Sciences	1,206	195	107	55%	\$42,000	75	38%	\$48,593	73	37%	\$56,717	64	33%	\$70,274	
Mathematics and Statistics	333	65	19	29%	\$81,318	18	28%	\$92,559	14	22%	\$128,128	13	20%	\$148,088	
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Multi/Interdisciplinary Studies	314	49	24	49%	\$49,282	21	43%	\$57,339	17	35%	\$65,926	15	31%	\$76,970	
Parks, Recreation, Leisure, and Fitness Studies	82	10	*	*	*	*	*	*	*	*	*	*	*	*	
Philosophy and Religious Studies	71	*	*	*	*	*	*	*	*	*	*	*	*	*	
Physical Sciences	693	102	45	44%	\$32,025	28	27%	\$54,319	27	26%	\$73,782	27	26%	\$98,258	
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Psychology	378	56	29	52%	\$44,242	25	45%	\$54,338	23	41%	\$67,575	23	41%	\$80,977	
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Public Administration and Social Service Professions	109	24	16	67%	\$44,520	16	67%	\$56,202	14	58%	\$67,181	11	46%	\$71,476	
Social Sciences	416	58	26	45%	\$41,822	20	34%	\$48,482	16	28%	\$58,861	15	26%	\$57,879	
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Visual and Performing Arts	111	15	*	*	*	*	*	*	*	*	*	*	*	*	
Health Professions and Related Programs	606	106	59	56%	\$65,767	53	50%	\$76,995	52	49%	\$88,294	54	51%	\$89,115	
Business, Management, Marketing, and Related Support Services	77	18	*	*	*	*	*	*	*	*	*	*	*	*	
History	139	26	13	50%	\$31,881	*	*	*	*	*	*	*	*	*	



**Table 23. UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2016-2017 Graduates**

University Of North Carolina System Doctoral Degree (Research) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>									
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017										
	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	98	23	12	52%	\$75,477	11	48%	\$97,426	11	48%	\$92,375
Natural Resources and Conservation	144	32	16	50%	\$47,183	14	44%	\$51,099	13	41%	\$52,496
Architecture and Related Services	44	11	*	*	*	*	*	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	18	*	*	*	*	*	*	*	*	*	*
Communication, Journalism, and Related Programs	66	15	*	*	*	*	*	*	*	*	*
Computer and Information Sciences and Support Services	246	45	18	40%	\$77,366	15	33%	\$81,218	11	24%	\$111,158
Education	1,593	230	190	83%	\$71,613	183	80%	\$74,758	175	76%	\$78,119
Engineering	707	136	66	49%	\$46,165	48	35%	\$71,061	48	35%	\$76,181
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	110	15	*	*	*	*	*	*	*	*	*
Family and Consumer Sciences/Human Sciences	27	*	*	*	*	*	*	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	192	21	16	76%	\$39,268	14	67%	\$45,621	12	57%	\$52,327
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*
Library Science	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,200	204	106	52%	\$42,812	75	37%	\$48,183	71	35%	\$55,359
Mathematics and Statistics	301	55	27	49%	\$36,239	19	35%	\$60,698	16	29%	\$73,037
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	330	46	34	74%	\$37,370	30	65%	\$55,695	31	67%	\$55,634
Parks, Recreation, Leisure, and Fitness Studies	94	*	*	*	*	*	*	*	*	*	*
Philosophy and Religious Studies	72	14	*	*	*	*	*	*	*	*	*
Physical Sciences	685	124	52	42%	\$39,470	33	27%	\$62,227	33	27%	\$60,923
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*
Psychology	405	65	28	43%	\$47,418	29	45%	\$50,283	26	40%	\$68,452
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	101	17	*	*	*	*	*	*	*	*	*
Social Sciences	386	59	26	44%	\$50,565	18	31%	\$61,159	18	31%	\$53,510
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	120	24	15	63%	\$4,827	12	50%	\$18,335	*	*	*
Health Professions and Related Programs	616	115	60	52%	\$62,244	55	48%	\$72,612	52	45%	\$82,250
Business, Management, Marketing, and Related Support Services	65	15	*	*	*	*	*	*	*	*	*
History	133	24	12	50%	\$28,881	*	*	*	*	*	*

**Table 24. UNC Doctoral (Research) Degree Program Outcomes by Program Area, 2017-2018 and 2018-2019 Graduates**

University Of North Carolina System Doctoral Degree (Research) Programs		Common Follow-up System: Evaluative Measures, 2021 Report											
		Data prepared by the Labor & Economic Analysis Division, NC Department of Commerce											
		Program Year 2017-2018						Program Year 2018-2019					
Post-Completion Outcome Employment and Wage Measures by Program Area	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	99	21	13	62%	\$66,043	11	52%	\$82,934	86	21	13	62%	\$56,299
Natural Resources and Conservation	137	17	*	*	*	*	*	*	128	19	*	*	*
Architecture and Related Services	38	*	*	*	*	*	*	*	47	*	*	*	*
Area, Ethnic, Cultural, Gender, and Group Studies	18	*	*	*	*	*	*	*	17	*	*	*	*
Communication, Journalism, and Related Programs	66	13	*	*	*	*	*	*	62	*	*	*	*
Computer and Information Sciences and Support Services	219	37	18	49%	\$103,725	16	43%	\$118,772	195	34	12	35%	\$67,578
Education	1,566	262	214	82%	\$68,852	200	76%	\$76,114	1,527	259	206	80%	\$72,483
Engineering	681	99	45	45%	\$65,848	42	42%	\$82,638	683	101	46	46%	\$50,165
Engineering Technologies and Engineering-Related Fields	*	*	*	*	*	*	*	*	*	*	*	*	*
Foreign Languages, Literatures, and Linguistics	104	*	*	*	*	*	*	*	93	13	10	77%	\$21,849
Family and Consumer Sciences/Human Sciences	22	*	*	*	*	*	*	*	22	*	*	*	*
Legal Professions and Studies	*	*	*	*	*	*	*	*	*	*	*	*	*
English Language and Literature/Letters	181	20	11	55%	\$38,162	*	*	*	180	27	17	63%	\$22,802
Liberal Arts and Sciences, General Studies, and Humanities	*	*	*	*	*	*	*	*	*	*	*	*	*
Library Science	*	*	*	*	*	*	*	*	*	*	*	*	*
Biological and Biomedical Sciences	1,165	202	120	59%	\$47,691	85	42%	\$67,791	1,157	181	106	59%	\$47,866
Mathematics and Statistics	305	42	14	33%	\$55,387	11	26%	\$92,304	312	40	22	55%	\$40,440
Military Technologies and Applied Sciences	*	*	*	*	*	*	*	*	*	*	*	*	*
Multi/Interdisciplinary Studies	314	45	30	67%	\$55,619	28	62%	\$63,569	301	41	23	56%	\$46,410
Parks, Recreation, Leisure, and Fitness Studies	108	23	12	52%	\$61,719	10	43%	\$80,480	116	24	13	54%	\$50,309
Philosophy and Religious Studies	68	13	*	*	*	*	*	*	66	*	*	*	*
Physical Sciences	611	94	41	44%	\$48,600	32	34%	\$66,427	579	114	45	39%	\$44,513
Science Technologies/Technicians	*	*	*	*	*	*	*	*	*	*	*	*	*
Psychology	412	54	26	48%	\$56,489	23	43%	\$61,039	411	52	22	42%	\$63,462
Homeland Security, Law Enforcement, Firefighting, and Related Protective Services	*	*	*	*	*	*	*	*	*	*	*	*	*
Public Administration and Social Service Professions	89	13	*	*	*	*	*	*	85	14	*	*	*
Social Sciences	364	52	29	56%	\$28,848	15	29%	\$51,726	358	51	16	31%	\$23,410
Transportation and Materials Moving	*	*	*	*	*	*	*	*	*	*	*	*	*
Visual and Performing Arts	111	15	*	*	*	*	*	*	104	20	14	70%	\$19,308
Health Professions and Related Programs	614	95	52	55%	\$60,985	48	51%	\$78,151	637	110	66	60%	\$62,255
Business, Management, Marketing, and Related Support Services	63	13	*	*	*	*	*	*	62	*	*	*	*
History	137	14	10	71%	\$25,239	10	71%	\$21,490	135	18	10	56%	\$30,327

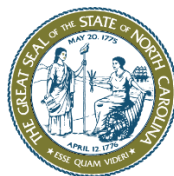
**Table 25. UNC Doctoral (Professional) Degree Program Outcomes by Program Area**

University Of North Carolina System Doctoral Degree (Professional Practice) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>															
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2014-2015																
	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	1,270	406	242	60%	\$29,830	248	61%	\$48,981	244	60%	\$55,478	237	58%	\$63,629	231	57%	\$72,259
Health Professions and Related Programs	3,235	776	432	56%	\$53,026	451	58%	\$65,180	447	58%	\$70,423	445	57%	\$86,646	451	58%	\$101,509

University Of North Carolina System Doctoral Degree (Professional Practice) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2015-2016															
	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	1,264	402	257	64%	\$29,322	263	65%	\$48,512	259	64%	\$56,974	252	63%	\$64,068		
Health Professions and Related Programs	3,427	798	460	58%	\$55,194	470	59%	\$71,611	458	57%	\$77,996	476	60%	\$92,446		

University Of North Carolina System Doctoral Degree (Professional Practice) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2016-2017															
	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	1,186	366	231	63%	\$34,245	228	62%	\$50,738	218	60%	\$60,263					
Health Professions and Related Programs	3,535	863	512	59%	\$56,525	508	59%	\$70,720	498	58%	\$81,026					

University Of North Carolina System Doctoral Degree (Professional Practice) Programs		Common Follow-up System: Evaluative Measures, 2021 Report <i>Data prepared by the Labor &amp; Economic Analysis Division, NC Department of Commerce</i>														
Post-Completion Outcome Employment and Wage Measures by Program Area	Program Year 2017-2018									Program Year 2018-2019						
	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	1,101	344	208	60%	\$37,257	209	61%	\$53,145	997	330	203	62%	\$37,058			
Health Professions and Related Programs	3,624	939	578	62%	\$58,817	601	64%	\$78,955	3,682	930	566	61%	\$59,665			



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