



SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS OFFICE  
*Transforming data into solutions for South Carolina*

Education and Workforce Report  
2019

§59-18-150



# Acknowledgements

We would like to acknowledge the cooperation and assistance provided by the following agencies in the preparation of this report: the SC Department of Education; the SC Commission on Higher Education; the SC Department of Employment and Workforce; and, the SC Technical College System.

# Background and Purpose

- This report is presented as mandated by Act 94 of 2017 (H. 3969).
- §59-18-150 Added "to Provide for the establishment of a state longitudinal data system for measuring the continuous improvement of public education and the college readiness and career readiness of public school graduates, and to provide related findings" to the SC Code of Law.
- Act 94 requires that the following information be provided:
  - (a) the number of students graduating from public high schools in the State who enter postsecondary education without the need for remediation;
  - (b) the number of working-aged adults in South Carolina by county who possess a postsecondary degree or industry credential;
  - (c) the number of high school graduates who are gainfully employed in the State within five and ten years of graduating from high school; and
  - (d) outcome data regarding student achievement and student growth that will assist colleges of education in achieving accreditation and in improving the quality of teachers in classrooms.

# Background and Purpose, continued

- The creation of a suitable longitudinal data system entailed an expansion of the existing integrated data system housed at RFA.
  - Discussions with stakeholders, most notably the State Department of Education, the Commission on Higher Education, the SC Department of Employment and Workforce, and the SC Technical College system identified available data and validated the specific measures used in this report.
  - Gaps in the RFA data holdings required the execution of two new Memoranda of Understanding (MOU's) between RFA and the Commission on Higher Education and the SC Technical College in order to bridge these gaps. Existing MOU's with the State Department of Education and the Department of Employment and Workforce were sufficient to cover the data needed.
  - All necessary individual data were linked and deidentified using RFA's existing record linking process, and subsequently maintained in RFA's secure, encrypted, data environment.
- The review of available data identified some gaps that could not be filled by existing data collections. Most notably, "(d) outcome data regarding student achievement and student growth that will assist colleges of education in achieving accreditation and in improving the quality of teachers in classrooms" is not included in this report because the required data linking student achievement to individual teachers is not currently collected.

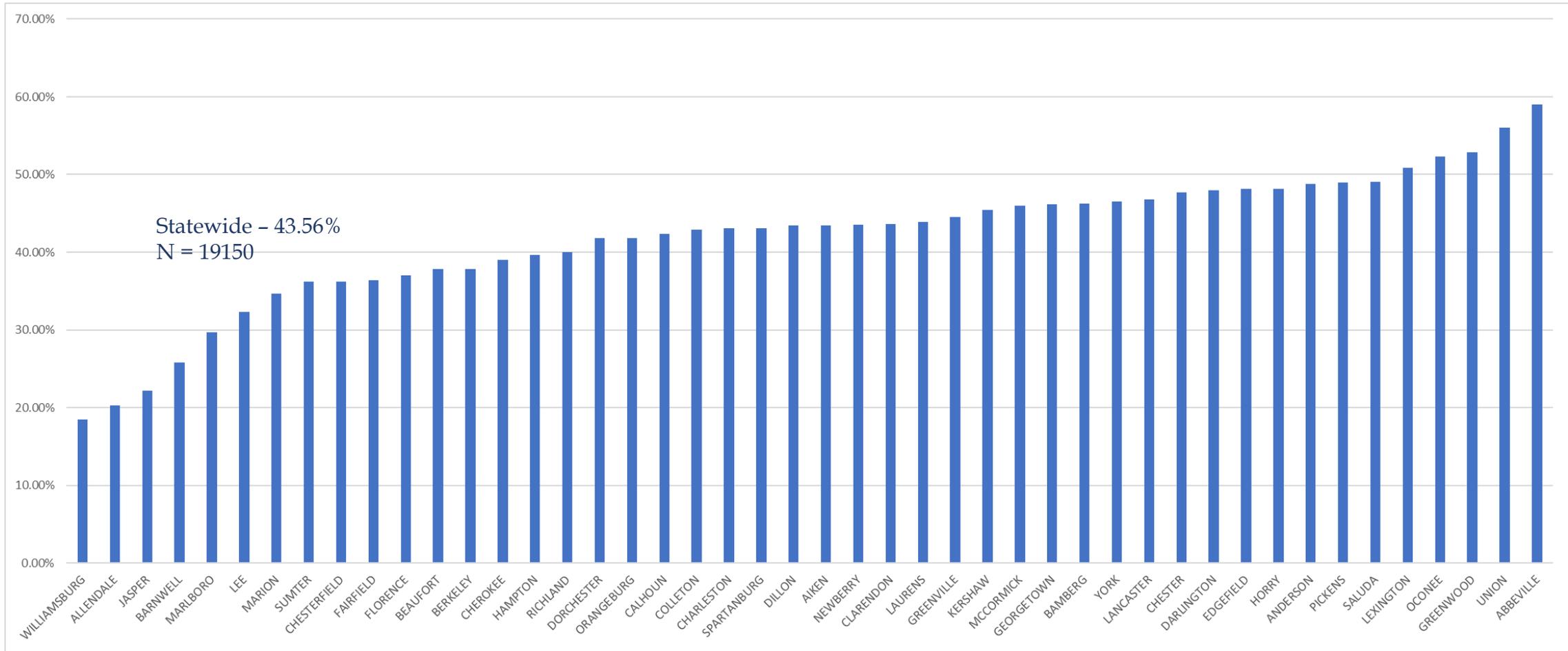
(a) the number of students graduating from public high schools in the State who enter postsecondary education without the need for remediation

- Data – SC Public High School On-time Graduates linked to Commission on Higher Education Enrollment. Details are provided in the Data Appendix.
- Key Limitations
  - On-time graduation does not allow for other forms of secondary school completion.
  - Analysis is restricted to SC public high schools.
  - Analysis is restricted to in-state post-secondary institutions.
- Key Findings
  - Proportion of graduates entering post-secondary education without remediation has been declining over the past 3-4 years.
  - Many do not enter post-secondary education immediately after graduation. Enrollment rates are substantially higher after 5 years, regardless of the need for remediation.
  - There is substantial variation among the counties in terms of the in state enrollment of high school graduates.

# South Carolina Public High School Graduates Entering Post-Secondary Education in the State

YEAR OF GRADUATION	S.C. PUBLIC HIGH SCHOOL GRADUATES	ADMIT TYPE	GRADUATES ENTERING POST-SECONDARY EDUCATION IN THE YEAR IMMEDIATELY FOLLOWING HIGH SCHOOL GRADUATION		GRADUATES ENTERING POST-SECONDARY EDUCATION ANY YEAR AFTER GRADUATION		
			COUNT	PERCENT SC PUBLIC HIGH SCHOOL GRADUATES	YEARS AVAILABLE TO FIND STUDENTS IN THE CHE DATABASE	COUNT	PERCENT SC PUBLIC HIGH SCHOOL GRADUATES
2013	38961	REMEDICATION	3170	8.14%	5	3896	10.00%
2013	38961	NO REMEDIATION	19215	49.32%	5	21019	53.95%
2013	38961	TOTAL	22385	57.45%	5	24915	63.95%
2014	39137	REMEDICATION	2954	7.55%	4	3558	9.09%
2014	39137	NO REMEDIATION	19845	50.71%	4	21413	54.71%
2014	39137	TOTAL	22799	58.25%	4	24971	63.80%
2015	40599	REMEDICATION	3033	7.47%	3	3566	8.78%
2015	40599	NO REMEDIATION	19678	48.47%	3	21108	51.99%
2015	40599	TOTAL	22711	55.94%	3	24674	60.77%
2016	42808	REMEDICATION	2574	6.01%	2	2965	6.93%
2016	42808	NO REMEDIATION	19443	45.42%	2	20543	47.99%
2016	42808	TOTAL	22017	51.43%	2	23508	54.91%
2017	43964	REMEDICATION	2668	6.07%	1	2668	6.07%
2017	43964	NO REMEDIATION	19150	43.56%	1	19150	43.56%
2017	43964	TOTAL	21818	49.63%	1	21818	49.63%

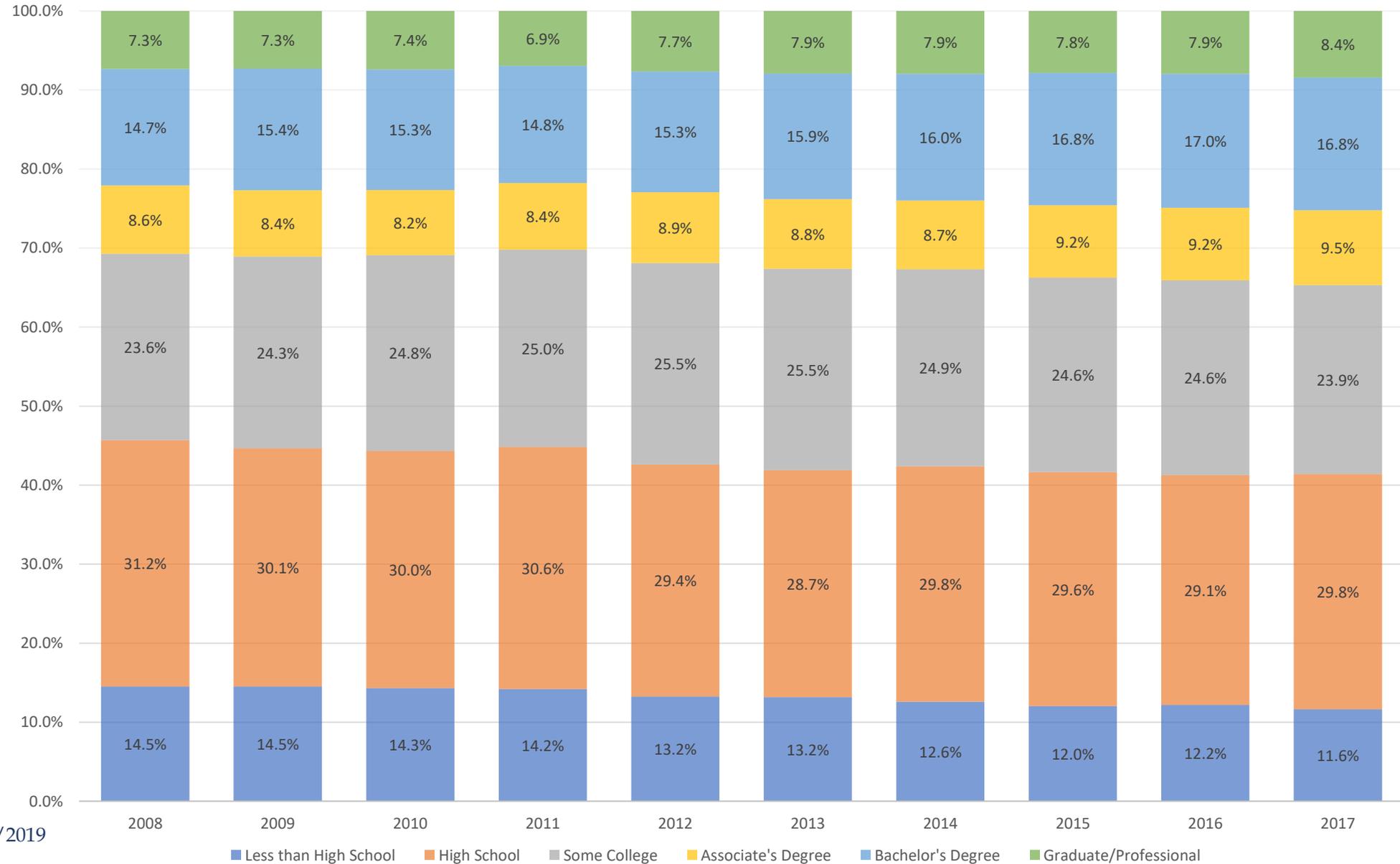
# South Carolina Public High School Graduates Entering Post-Secondary Education in the State Without Remediation - 2017



(b) the number of working-aged adults in South Carolina by county who possess a postsecondary degree or industry credential

- Data - U.S. Census Bureau, American Community Survey (ACS) was used to provide this measure of the educational attainment of the working aged population (18-64). Details are provided in the Data Appendix.
- Key Limitations
  - Analysis based on survey estimates, rather than direct counts through administrative data.
  - Geographic location determined by location at the time of survey response.
- Key Findings
  - Educational attainment has increased modestly over time, with slight upward trends in the proportions acquiring associates, bachelors, and graduate professional degrees.
  - Substantial variability across counties in all categories.

# Educational Attainment for the Population 18 and Over American Community Survey, One Year Estimates



# Educational Attainment for the Population 18 and Over

## American Communities Survey, Five Year Estimates

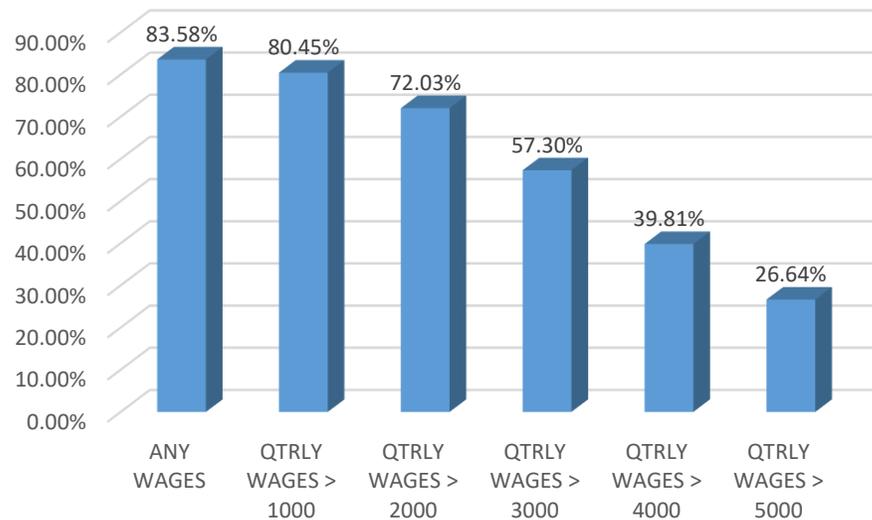
County	2013-2017	2013-2017		2013-2017		2013-2017		2013-2017		2013-2017		2013-2017	
	Estimated population 18 to 64 years:	Less than high school education		High school graduate or higher		At least some college		Associate's degree or higher		Bachelor's degree or higher		Graduate/professional degree	
		Estimated number	Estimated percent of population 18-64 years	Estimated number	Estimated percent of population 18-64 years	Estimated number	Estimated percent of population 18-64 years	Estimated number	Estimated percent of population 18-64 years	Estimated number	Estimated percent of population 18-64 years	Estimated number	Estimated percent of population 18-64 years
Abbeville	14,567	2,272	15.6%	12,295	84.4%	7,182	49.3%	3,624	24.9%	1,984	13.6%	629	4.3%
Aiken	99,568	12,647	12.7%	86,921	87.3%	54,563	54.8%	30,370	30.5%	22,177	22.3%	7,432	7.5%
Allendale	5,887	1,167	19.8%	4,720	80.2%	2,203	37.4%	972	16.5%	525	8.9%	128	2.2%
Anderson	115,673	15,649	13.5%	100,024	86.5%	65,001	56.2%	35,768	30.9%	23,050	19.9%	7,799	6.7%
Bamberg	8,942	1,569	17.5%	7,373	82.5%	4,916	55.0%	2,587	28.9%	1,392	15.6%	471	5.3%
Barnwell	12,783	2,003	15.7%	10,780	84.3%	6,071	47.5%	2,943	23.0%	1,507	11.8%	358	2.8%
Beaufort	99,433	9,501	9.6%	89,932	90.4%	62,357	62.7%	37,477	37.7%	28,849	29.0%	10,099	10.2%
Berkeley	128,993	13,901	10.8%	115,092	89.2%	77,103	59.8%	41,425	32.1%	28,290	21.9%	8,520	6.6%
Calhoun	8,724	963	11.0%	7,761	89.0%	4,321	49.5%	2,356	27.0%	1,632	18.7%	561	6.4%
Charleston	252,115	21,669	8.6%	230,446	91.4%	176,095	69.8%	119,002	47.2%	99,795	39.6%	32,502	12.9%
Cherokee	34,381	6,808	19.8%	27,573	80.2%	15,481	45.0%	7,789	22.7%	5,079	14.8%	1,601	4.7%
Chester	19,290	3,109	16.1%	16,181	83.9%	8,597	44.6%	4,284	22.2%	2,574	13.3%	679	3.5%
Chesterfield	27,988	5,664	20.2%	22,324	79.8%	10,967	39.2%	5,104	18.2%	3,175	11.3%	1,063	3.8%
Clarendon	20,075	3,845	19.2%	16,230	80.8%	8,710	43.4%	4,139	20.6%	2,537	12.6%	750	3.7%
Colleton	21,939	2,512	11.4%	19,427	88.6%	9,864	45.0%	5,327	24.3%	2,872	13.1%	855	3.9%
Darlington	40,576	6,671	16.4%	33,905	83.6%	19,839	48.9%	10,190	25.1%	6,852	16.9%	2,337	5.8%
Dillon	18,257	4,291	23.5%	13,966	76.5%	7,309	40.0%	3,233	17.7%	1,811	9.9%	556	3.0%
Dorchester	94,560	9,586	10.1%	84,974	89.9%	58,743	62.1%	34,679	36.7%	24,234	25.6%	7,725	8.2%
Edgefield	17,014	2,803	16.5%	14,211	83.5%	7,744	45.5%	4,318	25.4%	2,996	17.6%	931	5.5%
Fairfield	13,997	1,906	13.6%	12,091	86.4%	6,181	44.2%	3,201	22.9%	2,270	16.2%	620	4.4%
Florence	83,825	11,071	13.2%	72,754	86.8%	45,652	54.5%	25,669	30.6%	18,116	21.6%	5,743	6.9%
Georgetown	33,737	4,174	12.4%	29,563	87.6%	19,127	56.7%	10,664	31.6%	7,350	21.8%	2,525	7.5%
Greenville	303,574	36,021	11.9%	267,553	88.1%	192,547	63.4%	123,348	40.6%	96,533	31.8%	32,492	10.7%
Greenwood	41,727	6,411	15.4%	35,316	84.6%	23,233	55.7%	13,237	31.7%	8,673	20.8%	2,778	6.7%
Hampton	12,191	1,906	15.6%	10,285	84.4%	4,559	37.4%	2,260	18.5%	1,146	9.4%	327	2.7%
Horry	185,132	20,640	11.1%	164,492	88.9%	105,725	57.1%	57,044	30.8%	38,912	21.0%	11,933	6.4%
Jasper	17,243	4,038	23.4%	13,205	76.6%	7,189	41.7%	3,135	18.2%	2,009	11.7%	589	3.4%
Kershaw	37,886	4,575	12.1%	33,311	87.9%	19,295	50.9%	10,695	28.2%	7,259	19.2%	2,643	7.0%
Lancaster	50,592	7,501	14.8%	43,091	85.2%	26,828	53.0%	16,520	32.7%	11,440	22.6%	3,235	6.4%
Laurens	40,277	7,040	17.5%	33,237	82.5%	19,521	48.5%	8,969	22.3%	5,295	13.1%	1,592	4.0%
Lee	11,085	2,068	18.7%	9,017	81.3%	3,913	35.3%	1,783	16.1%	1,039	9.4%	236	2.1%
Lexington	174,309	17,762	10.2%	156,547	89.8%	106,195	60.9%	64,938	37.3%	49,406	28.3%	16,280	9.3%
McCormick	5,464	1,215	22.2%	4,249	77.8%	2,364	43.3%	1,176	21.5%	654	12.0%	140	2.6%
Marion	18,705	3,079	16.5%	15,626	83.5%	8,584	45.9%	4,047	21.6%	2,832	15.1%	889	4.8%
Marlboro	17,398	3,986	22.9%	13,412	77.1%	6,042	34.7%	2,551	14.7%	1,353	7.8%	489	2.8%
Newberry	22,569	4,225	18.7%	18,344	81.3%	10,133	44.9%	5,548	24.6%	3,395	15.0%	973	4.3%
Oconee	43,843	6,484	14.8%	37,359	85.2%	23,119	52.7%	13,522	30.8%	8,965	20.4%	3,136	7.2%
Orangeburg	53,206	6,621	12.4%	46,585	87.6%	29,700	55.8%	16,734	31.5%	10,133	19.0%	3,693	6.9%
Pickens	78,914	9,291	11.8%	69,623	88.2%	48,925	62.0%	22,831	28.9%	15,837	20.1%	5,787	7.3%
Richland	269,857	22,781	8.4%	247,076	91.6%	183,884	68.1%	105,512	39.1%	86,295	32.0%	31,103	11.5%
Saluda	12,043	2,798	23.2%	9,245	76.8%	5,353	44.4%	2,895	24.0%	1,661	13.8%	457	3.8%
Spartanburg	182,060	23,816	13.1%	158,244	86.9%	105,131	57.7%	60,088	33.0%	40,246	22.1%	13,031	7.2%
Sumter	64,909	8,439	13.0%	56,470	87.0%	36,018	55.5%	17,758	27.4%	11,388	17.5%	3,879	6.0%
Union	16,547	2,592	15.7%	13,955	84.3%	7,671	46.4%	3,753	22.7%	1,947	11.8%	716	4.3%
Williamsburg	19,368	3,063	15.8%	16,305	84.2%	8,117	41.9%	4,004	20.7%	2,489	12.9%	696	3.6%
York	156,010	15,717	10.1%	140,293	89.9%	100,081	64.2%	61,216	39.2%	46,018	29.5%	13,424	8.6%

(c) the number of high school graduates who are gainfully employed in the State within five and ten years of graduating from high school

- Data - SC Public High School On-time Graduates linked to Department of Employment and Workforce UI Quarterly Wage Data. Details are provided in the Data Appendix.
- Key Limitations
  - Analysis is restricted to SC public high schools.
  - Analysis is restricted to employment in SC, and omits certain forms of employment.
- Key Findings
  - The vast majority of graduates experience some employment and earnings post-graduation.
  - Higher levels of employment and wages are found in the longer, ten year, time period.
  - Movement towards comparatively higher wage levels is most pronounced among those employed in the tenth year post-graduation.

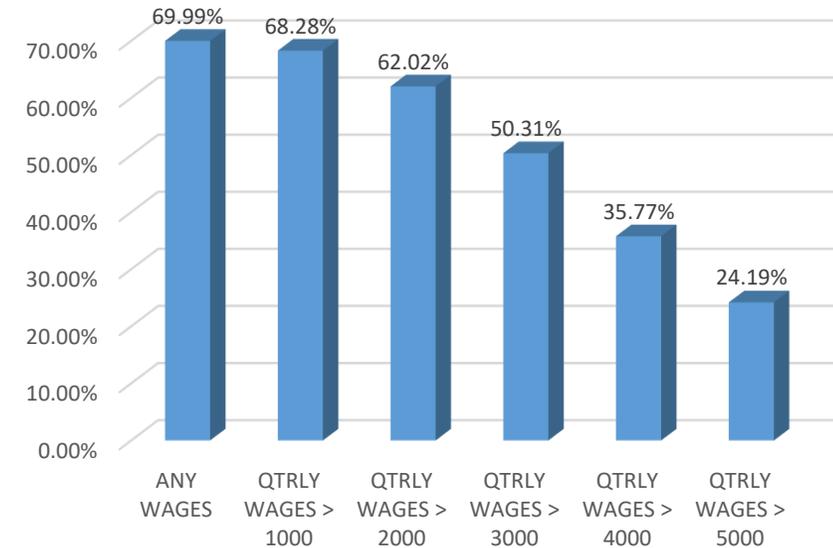
# South Carolina Public High School Graduates' Employment in the State Five Years After Graduation

Percentage of 2012 Graduates Employed at Anytime Over a Five Year Period Post-graduation



N=38,913

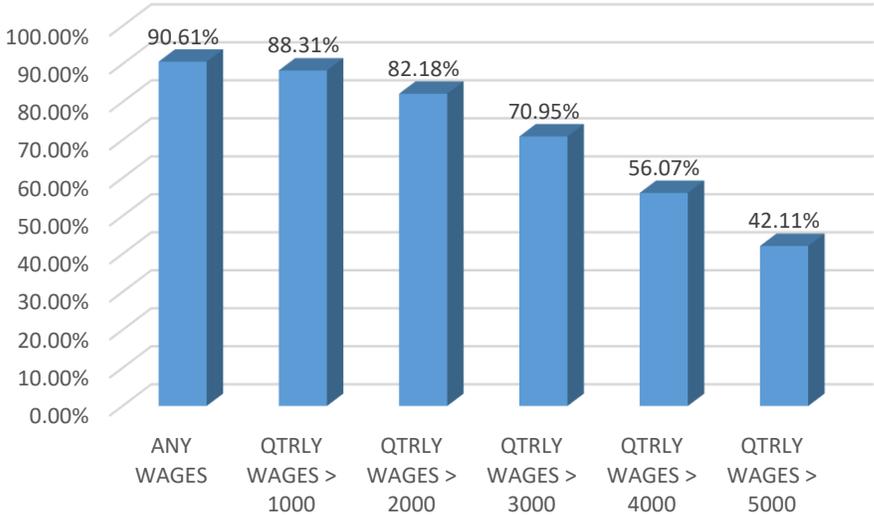
Percentage of 2012 Graduates Employed in the Fifth Year Post-graduation



N=38,913

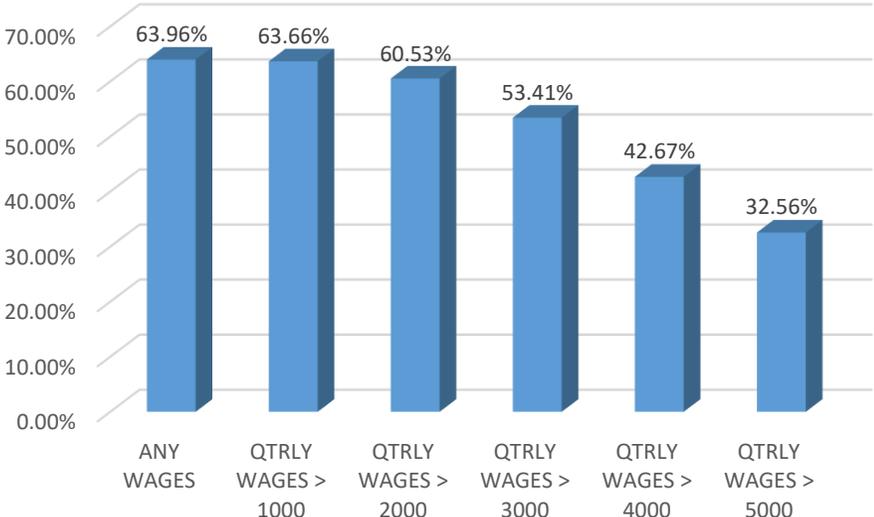
# South Carolina Public High School Graduates' Employment in the State Ten Years After Graduation

Percentage of 2008 Graduates Employed at Anytime Over a Ten Year Period Post-graduation



N=33,262

Percentage of 2008 Graduates Employed in the Tenth Year Post-graduation



N=33,262

# Appendix: Detailed Discussion of Data Sources



(a) the number of students graduating from public high schools in the State who enter postsecondary education without the need for remediation

- In order to evaluate the above-mentioned outcomes an initial cohort was established. Bi-annual census and graduation data, provided by the South Carolina Department of Education, were used to establish the cohort. Bi-annual census data provides information on the student's enrollment on the 45<sup>th</sup> and 135<sup>th</sup> day of the school year. This file is submitted twice a year to the Revenue and Fiscal Affairs Office. The Graduation data includes individuals who graduated on-time from South Carolina public schools within four years. This data is provided annually to the Revenue and Fiscal Affairs Office. This data does not include students who graduated from private or home schools not affiliated with the SC Department of Education or students who took more than 4 years to graduate.
- The cohort is comprised of 400,547 individuals who graduated from South Carolina public schools between 2008 and 2017. For the purposes of this project, a student was considered a graduate if they were identified as a graduate in the graduation data and were found in the 12<sup>th</sup> grade Bi-Annual Census data. Individuals who were not found in both data systems were excluded from the cohort. Individuals who were unable to be matched due to missing information were also excluded from the cohort to ensure data validity and accuracy.

(a) the number of students graduating from public high schools in the State who enter postsecondary education without the need for remediation, continued

- To determine the number of South Carolina public high school graduates entering post-secondary education, we linked the SCDE senior cohort with data SC high school students provided by the SC Commission on Higher Education's CHEMIS database. A student enters the CHEMIS database the first time they enroll in a post-secondary education institute in the state. This means that a student could have multiple records if they transferred to another school in the state. For this report we only kept the first record for each student to ensure that we were capturing high school students and not transfer students. The file we received from the Commission on Higher Education covers the 2012-2013 through 2017-2018 school years and contains 266,090 records. Unlike the SCDE senior cohort, this data does include students who attended private high schools, and is not limited to those who graduated on time. However, by linking to the senior cohort, we put the same limitations on this dataset.
- We counted the number of students entering post-secondary education two different ways. If they enrolled at an in state institution in the school-year immediately following their high school graduation year they were counted in the "Same Year" group. The "Any Year" group included any student in the CHE dataset that had a matching record in the senior cohort regardless of the year they graduated high school. For example, a student who graduated in the 2012-2013 school year has five years available in the CHE data for us to identify them as entering post-secondary education in South Carolina.

(b) the number of working-aged adults in South Carolina by county who possess a postsecondary degree or industry credential

- Data from the U.S. Census Bureau, American Community Survey (ACS) was used to provide this measure. This was necessary because the issue focuses on population questions that exceed the scope of the state's administrative data collections. ACS provides estimates of the educational attainment of the working aged population (18-64).
- The annual ACS sample is smaller than that of the 2000 Census long-form sample, which included about 18 million housing units. As a result, the ACS needs to combine population or housing data from multiple years to produce reliable numbers for small counties, neighborhoods, and other local areas. To provide information for communities each year, the ACS currently provides 1-year estimates for geographic areas with at least 65,000 people and 5-year estimates for smaller geographic areas down to the census tract and block-group level. Single-year and multiyear estimates from the ACS are all "period" estimates derived from a sample collected over a period of time, as opposed to "point-in-time" estimates such as those from past decennial censuses. While an ACS 1-year estimate includes information collected over a 12-month period, an ACS 5-year estimate includes data collected over a 60-month period.

<https://www.census.gov/programssurveys/acs/guidance/handbooks/general.html>

- ACS 1-year estimates are used to present educational attainment over time at the state level. The broader 5-year estimates are used to examine differences in educational attainment across counties.

(c) the number of high school graduates who are gainfully employed in the State within five and ten years of graduating from high school

- Data for high school graduates is derived from the cohort defined in section (a).
- These data are then linked to quarterly UI wage records acquired from the SC Department of Employment and Workforce. UI wage data captures the wages of most workers in a state, but some workers are excluded, such as those who work in a neighboring state. Federal employees, ex-service members, and postal workers are also not included in state UI wage data.
- Because a standard definition of “gainfully employed” could not be found, we have substituted a stipulative definition that describes wages and employment at various wage thresholds. In order to be considered gainfully employed the individual must have wages meeting a specific wage threshold in two consecutive quarters during the time period of interest.