



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

Education and Workforce Report  
2020

As required by §59-18-1950

# 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.

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

- Key Findings

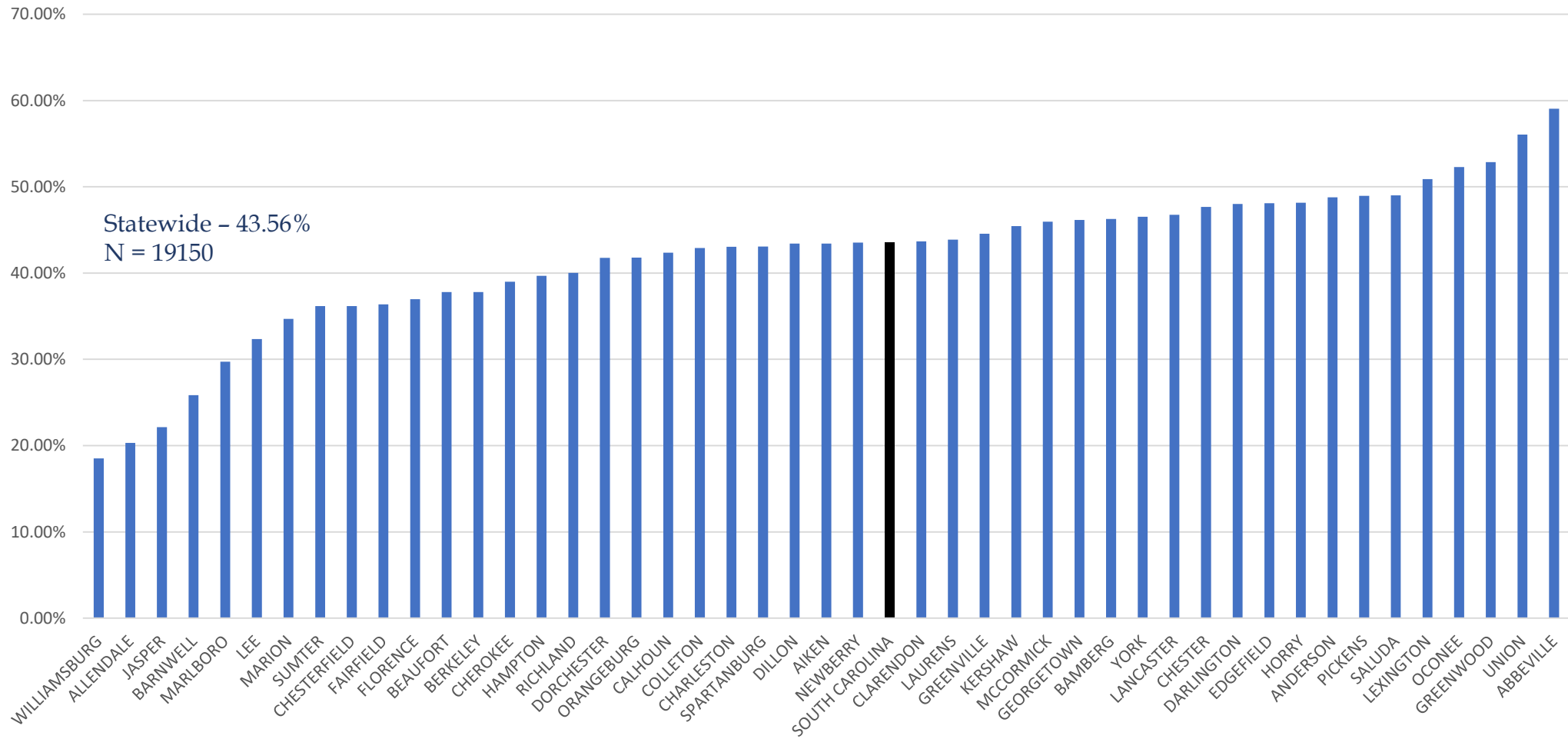
- Proportion of graduates entering post-secondary education without remediation has been declining over the past 3-4 years. Comparisons 2017 and 2018 suggest that this trend may be slowing.
- Many do not enter post-secondary education immediately after graduation. Enrollment rates are substantially higher 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. Comparison overtime indicates a slight reduction in variability, where counties with low proportions of students entering without remediation move somewhat closer to the average.

# South Carolina Public High School Graduates Entering Post-Secondary Education in the State, 2013-2018

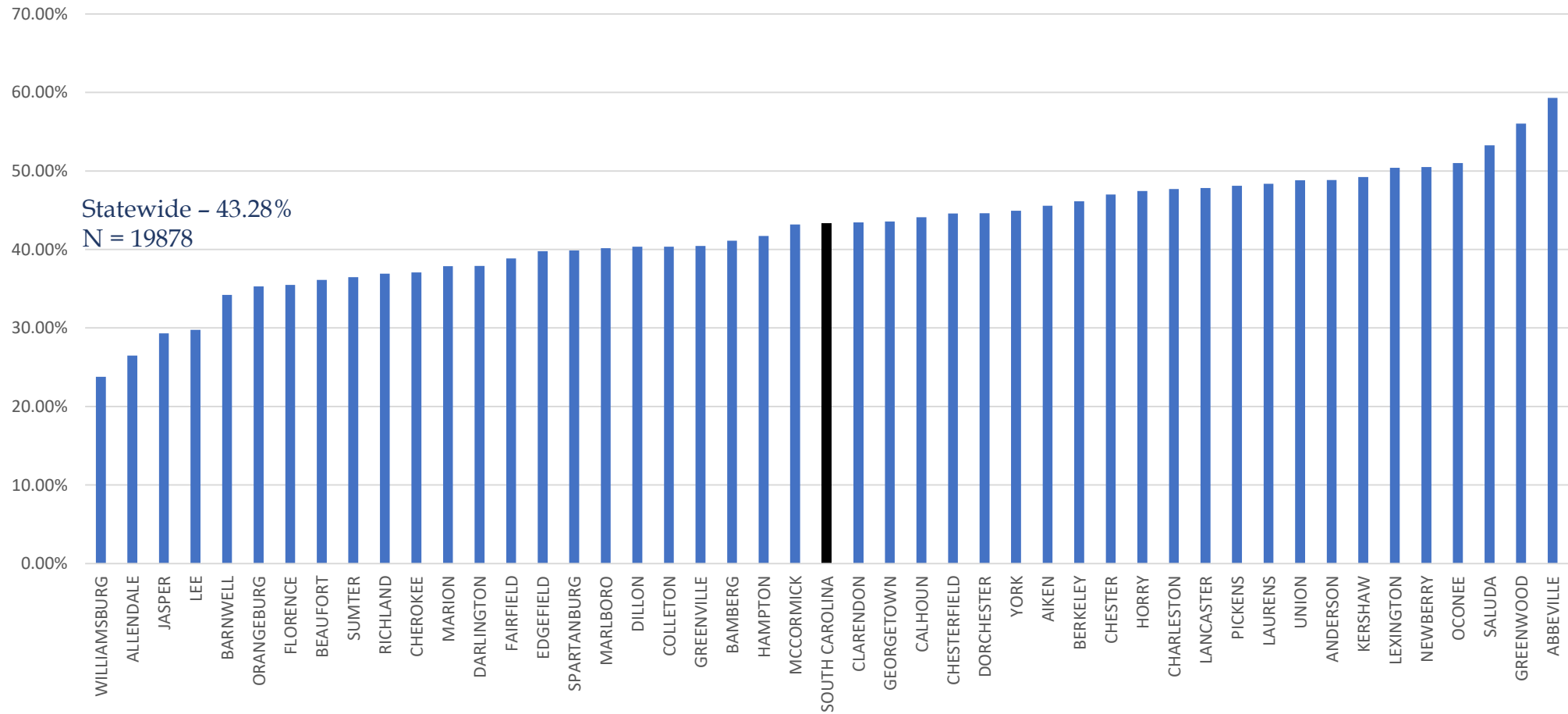
YEAR	S.C. PUBLIC HIGH SCHOOL GRADUATES	ADMIT TYPE	GRADUATES ENTERING POST-SECONDARY EDUCATION IN THE YEAR IMMEDIATELY FOLLOWING HIGH SCHOOL GRADUATION		GRADUATES ENTERING POST-SECONDARY EDUCATION ANY YEAR AFTER GRADUATION		
			COUNT	PERCENT	YEARS AVAILABLE TO FIND STUDENTS IN THE CHE DATABASE	COUNT	PERCENT
2013	38965	total	22385	57.45%	6	25106	64.43%
2013	38965	normal	19215	49.31%	6	21168	54.33%
2013	38965	remediation	3170	8.14%	6	3938	10.11%
2014	39137	total	22799	58.25%	5	25183	64.35%
2014	39137	normal	19845	50.71%	5	21579	55.14%
2014	39137	remediation	2954	7.55%	5	3604	9.21%
2015	40601	total	22711	55.94%	4	24970	61.50%
2015	40601	normal	19678	48.47%	4	21345	52.57%
2015	40601	remediation	3033	7.47%	4	3625	8.93%
2016	42808	total	22017	51.43%	3	24107	56.31%
2016	42808	normal	19443	45.42%	3	20991	49.04%
2016	42808	remediation	2574	6.01%	3	3116	7.28%
2017	43964	total	21818	49.63%	2	23259	52.90%
2017	43964	normal	19150	43.56%	2	20332	46.25%
2017	43964	remediation	2668	6.07%	2	2927	6.66%
2018	45928	total	22139	48.20%	1	22139	48.20%
2018	45928	normal	19878	43.28%	1	19878	43.28%
2018	45928	remediation	2261	4.92%	1	2261	4.92%

*NOTE: Counts and percentages are the same in 2018 for the "year following" graduation and "any year" because only one year of data was available*

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



# South Carolina Public High School Graduates Entering Post-Secondary Education in the State Without Remediation - 2018





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

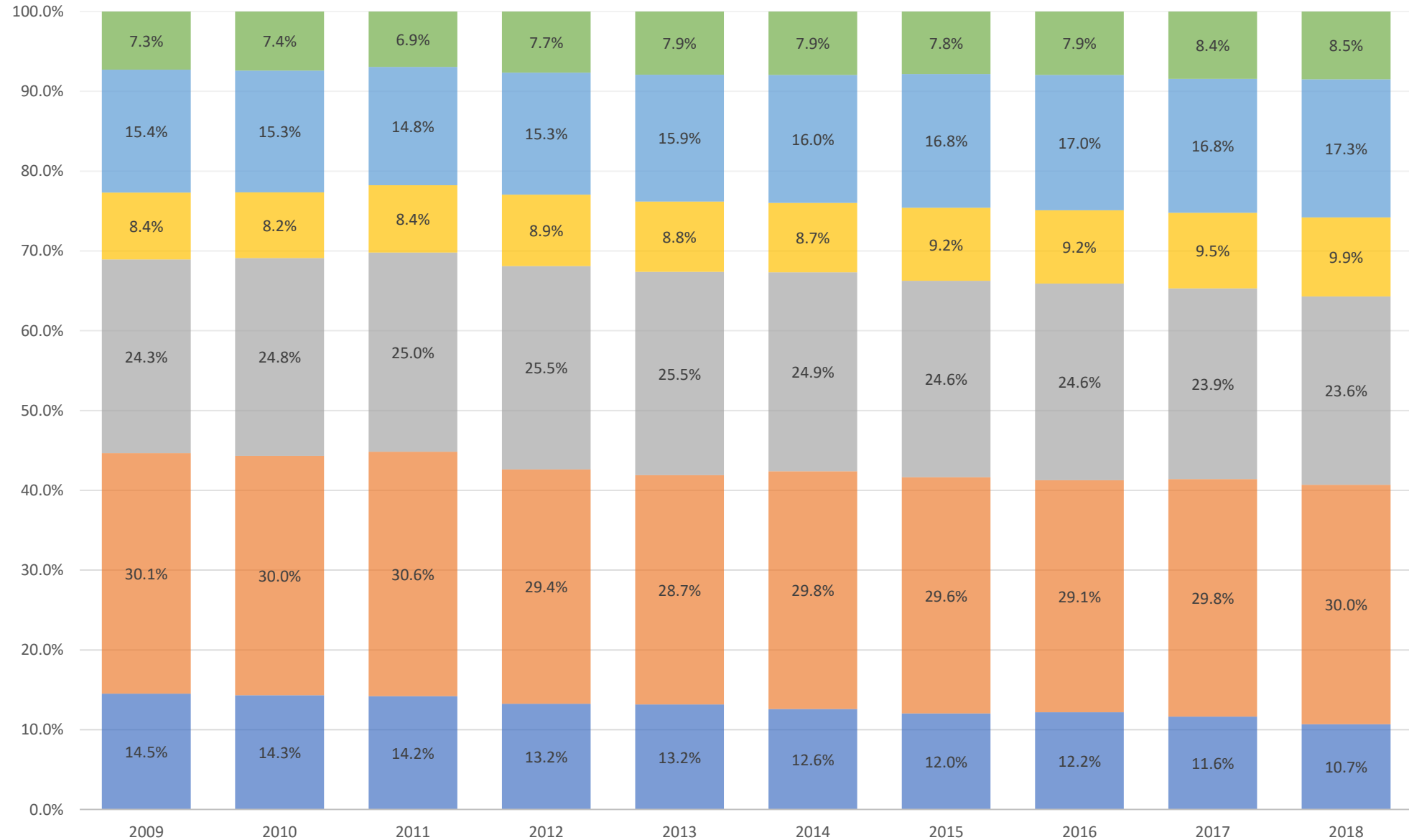
- Data - U.S. Census Bureau, American Community Survey (ACS) was used to provide this measure of the educational attainment of the working aged population (18-64). Details are provided in the Data Appendix.
- Key Limitations
  - Analysis based on survey estimates, rather than direct counts through administrative data.
  - Geographic location determined by location at the time of survey response.

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

- Key Findings

- Educational attainment has increased modestly over time, with slight upward trends in the proportions acquiring associates, bachelors, and graduate professional degrees.
- There is substantial variability across the 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/State	2015-2019	2015-2019		2015-2019		2015-2019		2015-2019		2015-2019		2015-2019	
	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 or higher	
		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	14,348	2,099	14.6%	12,249	85.4%	7,512	52.4%	3,979	27.7%	1,978	13.8%	583	4.1%
Aiken	100,095	11,459	11.4%	88,636	88.6%	55,562	55.5%	31,294	31.3%	22,650	22.6%	6,888	6.9%
Allendale	5,553	899	16.2%	4,654	83.8%	1,967	35.4%	848	15.3%	486	8.8%	115	2.1%
Anderson	117,424	15,519	13.2%	101,905	86.8%	65,952	56.2%	38,710	33.0%	24,915	21.2%	8,349	7.1%
Bamberg	8,459	1,115	13.2%	7,344	86.8%	4,864	57.5%	2,551	30.2%	1,382	16.3%	504	6.0%
Barnwell	12,409	2,046	16.5%	10,363	83.5%	5,801	46.7%	2,984	24.0%	1,407	11.3%	482	3.9%
Beaufort	101,533	9,693	9.5%	91,840	90.5%	62,518	61.6%	39,385	38.8%	30,641	30.2%	10,784	10.6%
Berkeley	134,605	13,577	10.1%	121,028	89.9%	81,154	60.3%	45,899	34.1%	31,596	23.5%	9,355	6.9%
Calhoun	8,585	879	10.2%	7,706	89.8%	4,504	52.5%	2,563	29.9%	1,671	19.5%	544	6.3%
Charleston	257,868	20,530	8.0%	237,338	92.0%	181,139	70.2%	126,691	49.1%	106,628	41.3%	34,668	13.4%
Cherokee	34,411	6,327	18.4%	28,084	81.6%	16,782	48.8%	7,925	23.0%	4,806	14.0%	1,414	4.1%
Chester	19,167	2,628	13.7%	16,539	86.3%	8,980	46.9%	4,668	24.4%	2,432	12.7%	620	3.2%
Chesterfield	27,508	5,327	19.4%	22,181	80.6%	10,404	37.8%	4,938	18.0%	2,775	10.1%	855	3.1%
Clarendon	19,595	3,959	20.2%	15,636	79.8%	8,486	43.3%	3,954	20.2%	2,409	12.3%	784	4.0%
Colleton	21,726	2,406	11.1%	19,320	88.9%	8,737	40.2%	5,600	25.8%	2,714	12.5%	727	3.3%
Darlington	39,668	5,617	14.2%	34,051	85.8%	20,200	50.9%	10,447	26.3%	7,262	18.3%	2,419	6.1%
Dillon	17,995	3,403	18.9%	14,592	81.1%	7,504	41.7%	3,472	19.3%	1,793	10.0%	577	3.2%
Dorchester	97,697	10,121	10.4%	87,576	89.6%	60,228	61.6%	36,661	37.5%	25,838	26.4%	7,945	8.1%
Edgefield	17,042	2,776	16.3%	14,266	83.7%	7,720	45.3%	3,816	22.4%	2,362	13.9%	786	4.6%
Fairfield	13,587	1,423	10.5%	12,164	89.5%	6,328	46.6%	3,255	24.0%	2,228	16.4%	534	3.9%
Florence	82,864	10,300	12.4%	72,564	87.6%	45,175	54.5%	26,470	31.9%	18,911	22.8%	6,444	7.8%
Georgetown	33,671	4,134	12.3%	29,537	87.7%	19,079	56.7%	10,789	32.0%	7,234	21.5%	2,486	7.4%
Greenville	311,413	35,275	11.3%	276,138	88.7%	202,220	64.9%	131,805	42.3%	103,640	33.3%	34,807	11.2%
Greenwood	41,482	5,768	13.9%	35,714	86.1%	23,518	56.7%	13,854	33.4%	8,680	20.9%	2,861	6.9%
Hampton	11,822	1,839	15.6%	9,983	84.4%	4,464	37.8%	2,378	20.1%	1,153	9.8%	273	2.3%
Horry	194,335	21,184	10.9%	173,151	89.1%	110,116	56.7%	60,448	31.1%	40,647	20.9%	13,097	6.7%
Jasper	17,448	3,641	20.9%	13,807	79.1%	6,900	39.5%	3,565	20.4%	2,494	14.3%	805	4.6%
Kershaw	38,104	4,198	11.0%	33,906	89.0%	19,714	51.7%	11,338	29.8%	7,335	19.2%	2,701	7.1%
Lancaster	53,386	7,616	14.3%	45,770	85.7%	29,369	55.0%	18,407	34.5%	12,720	23.8%	3,757	7.0%
Laurens	40,150	6,684	16.6%	33,466	83.4%	19,901	49.6%	9,770	24.3%	5,876	14.6%	1,714	4.3%
Lee	10,824	1,707	15.8%	9,117	84.2%	4,294	39.7%	2,205	20.4%	1,375	12.7%	456	4.2%
Lexington	177,861	18,039	10.1%	159,822	89.9%	109,436	61.5%	67,085	37.7%	50,800	28.6%	16,780	9.4%
McCormick	5,185	996	19.2%	4,189	80.8%	2,222	42.9%	1,210	23.3%	611	11.8%	177	3.4%
Marion	18,151	2,893	15.9%	15,258	84.1%	7,495	41.3%	3,548	19.5%	2,347	12.9%	830	4.6%
Marlboro	16,589	3,378	20.4%	13,211	79.6%	6,089	36.7%	2,611	15.7%	1,310	7.9%	529	3.2%
Newberry	22,513	3,684	16.4%	18,829	83.6%	10,873	48.3%	6,317	28.1%	3,587	15.9%	962	4.3%
Oconee	44,220	6,243	14.1%	37,977	85.9%	24,360	55.1%	14,926	33.8%	10,093	22.8%	3,448	7.8%
Orangeburg	51,624	5,747	11.1%	45,877	88.9%	29,662	57.5%	16,159	31.3%	8,966	17.4%	3,246	6.3%
Pickens	80,420	9,141	11.4%	71,279	88.6%	50,634	63.0%	25,614	31.9%	18,223	22.7%	6,919	8.6%
Richland	272,058	20,707	7.6%	251,351	92.4%	186,621	68.6%	110,004	40.4%	90,494	33.3%	33,481	12.3%
Saluda	11,965	2,727	22.8%	9,238	77.2%	5,424	45.3%	2,987	25.0%	1,763	14.7%	540	4.5%
Spartanburg	187,060	23,315	12.5%	163,745	87.5%	108,370	57.9%	63,013	33.7%	42,578	22.8%	13,676	7.3%
Sumter	63,964	7,785	12.2%	56,179	87.8%	36,269	56.7%	18,033	28.2%	11,093	17.3%	3,566	5.6%
Union	16,197	2,647	16.3%	13,550	83.7%	7,132	44.0%	3,405	21.0%	1,643	10.1%	597	3.7%
Williamsburg	18,429	2,820	15.3%	15,609	84.7%	7,631	41.4%	3,899	21.2%	2,374	12.9%	743	4.0%
York	163,736	14,279	8.7%	149,457	91.3%	109,442	66.8%	68,472	41.8%	51,903	31.7%	15,623	9.5%

(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.

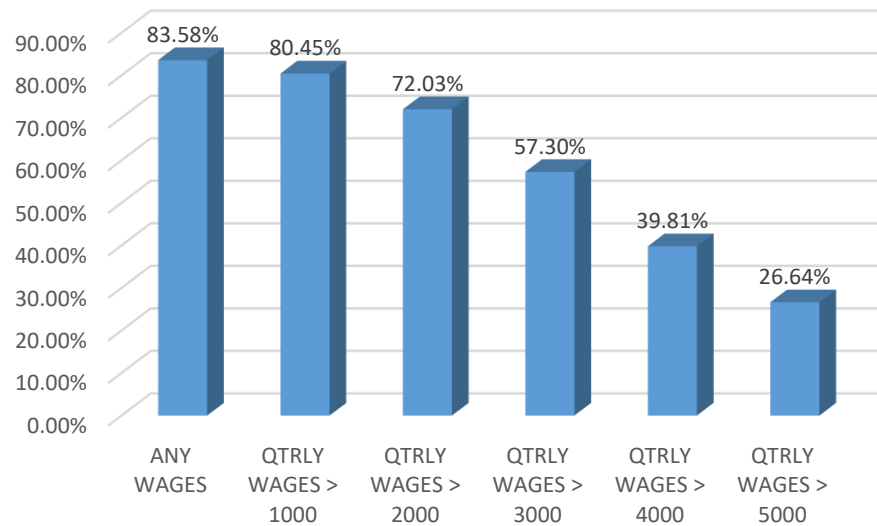
(c) the number of high school graduates who are gainfully employed in the State within five and ten years of graduating from high school

- 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.
- Comparisons of 2008 vs 2009 and 2012 vs 2013 graduating cohorts suggest very similar wage experiences over time.

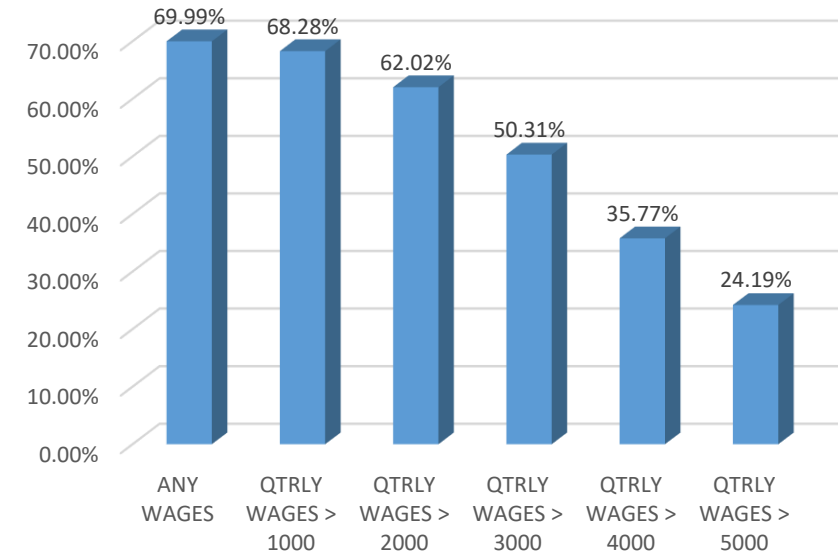
# South Carolina Public High School Graduates' Employment in the State Five Years After Graduation - 2012 Graduates

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



N=38,913

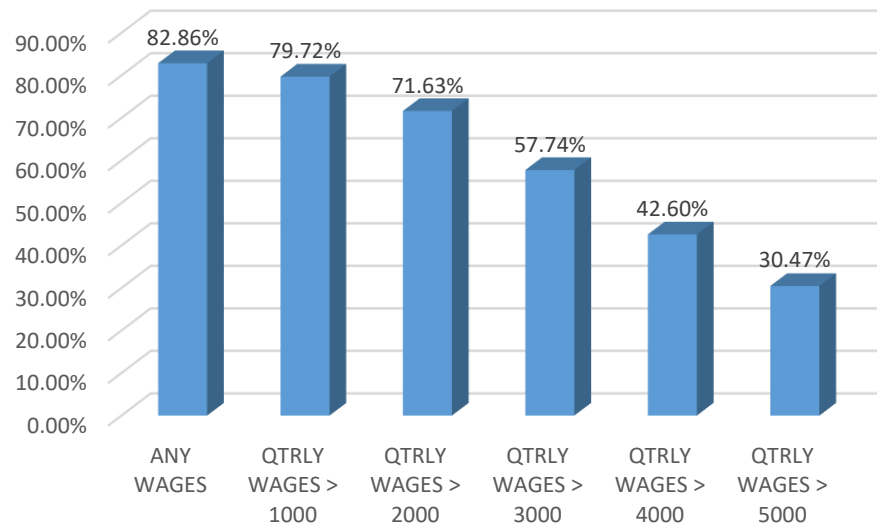
Percentage of 2012 Graduates Employed in the Fifth Year Post-graduation



N=38,913

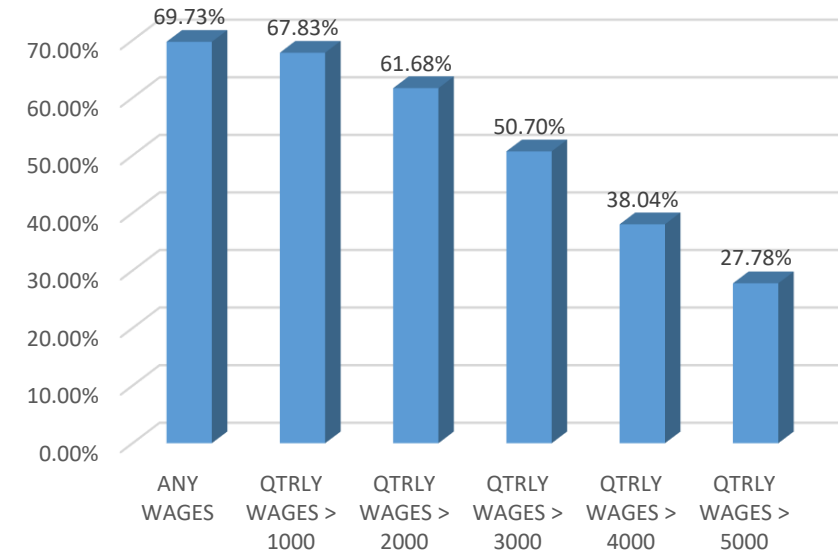
# South Carolina Public High School Graduates' Employment in the State Five Years After Graduation - 2013 Graduates

Percentage of 2013 Graduates Employed at Anytime Over a Five Year Period Post-graduation



N=38,964

Percentage of 2013 Graduates Employed in the Fifth Year Post-graduation

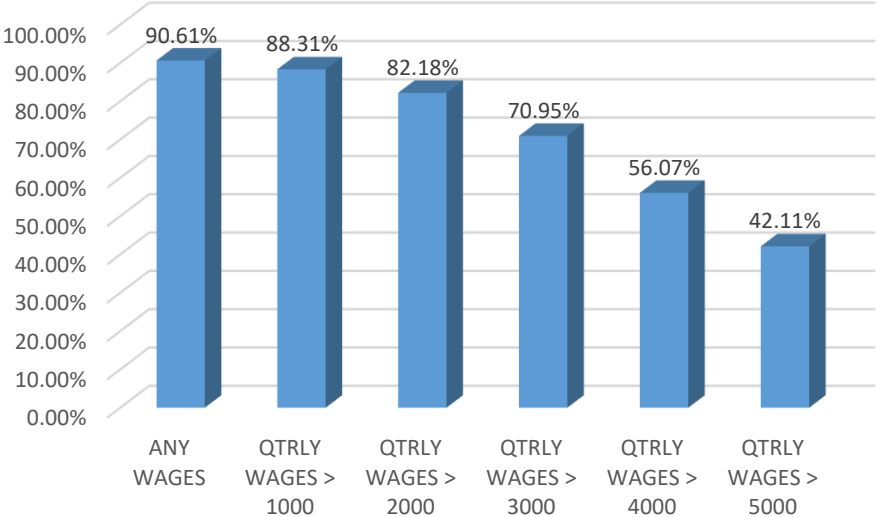


N=38,965



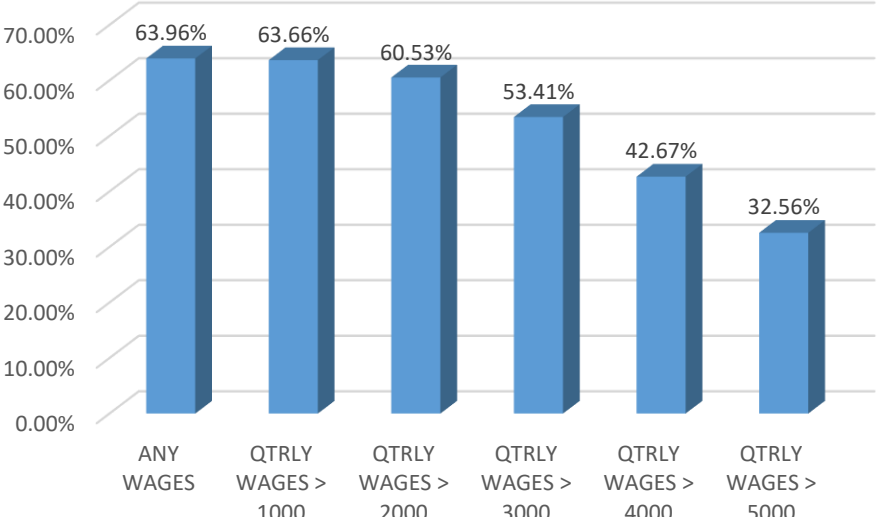
# South Carolina Public High School Graduates' Employment in the State Ten Years After Graduation - 2008 Graduates

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



N=33,262

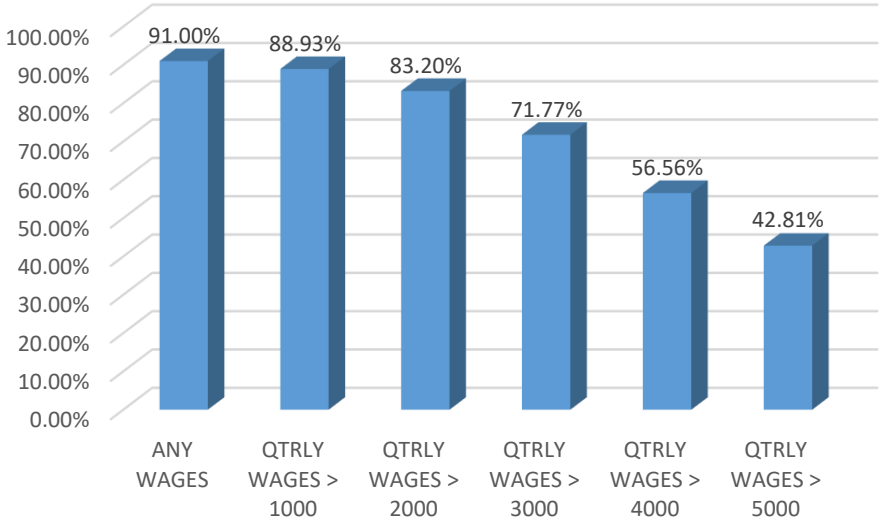
Percentage of 2008 Graduates Employed in the Tenth Year Post-graduation



N=33,262

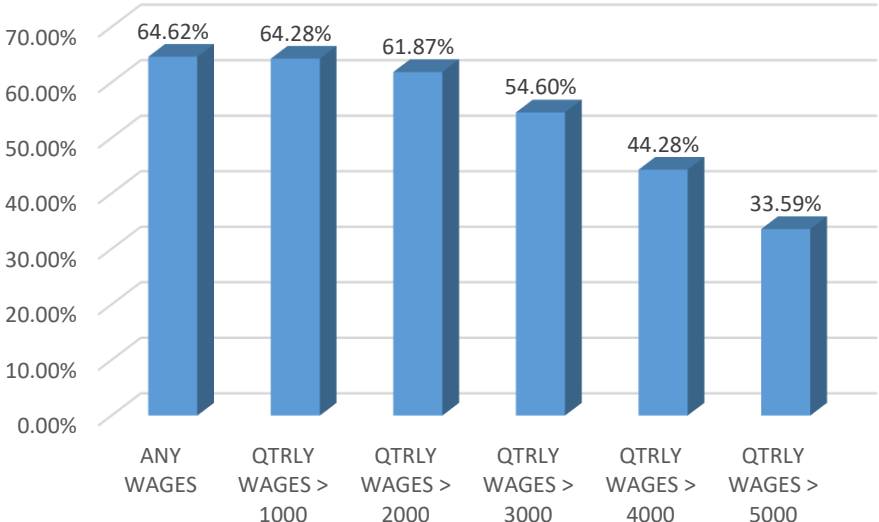
# South Carolina Public High School Graduates' Employment in the State Ten Years After Graduation - 2009 Graduates

Percentage of 2009 Graduates Employed at Anytime Over a Ten Year Period Post-graduation



N=36,365

Percentage of 2009 Graduates Employed in the Tenth Year Post-graduation



N=36,365

# 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 434,618 individuals who graduated from South Carolina public schools between 2008 and 2018. 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 2013-2014 through 2018-2019 school years and contains 258,528 records, with 215,337 after deduplication as described above. 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 2013-2014 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.

# For further information...

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