

HIGHLIGHTS

- On average, Kentucky's public high school graduates from 2011-12 earned \$7,567 the year following graduation. After three years the 2009-10 graduates' wages rose to \$11,511.
- Three years after high school two out of three graduates from 2009-10 were earning less than full-time minimum wage.
- Female graduates are only earning about 70 percent as much as males three years after high school.
- African American graduates earn more than 30 percent less than Caucasian graduates three years after high school.
- Graduates with 20 or more unexcused absences in their senior year earned up to 55 percent less than those with five or fewer.
- About 60 percent of the graduates work in the four lowest paying industries.



KENTUCKY CENTER FOR
EDUCATION & WORKFORCE STATISTICS

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NO COLLEGE = LOW WAGES

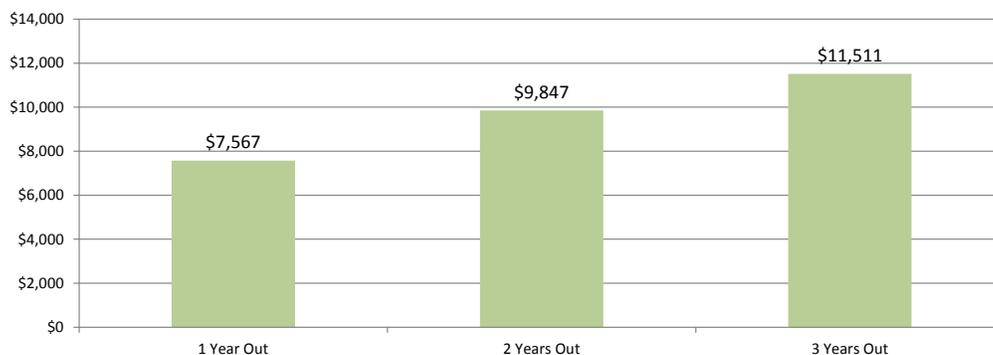
KENTUCKY HIGH SCHOOL GRADUATES WHO DO NOT ATTEND COLLEGE FACE LIMITED EMPLOYMENT OPPORTUNITIES AND LOW WAGES

BY CHARLES MCGREW, PH.D.

More than two-thirds of Kentucky's recent public high school graduates attended a college or university in some capacity within three years. Approximately 60% of those who didn't pursue postsecondary education entered Kentucky's workforce. The remainder most likely moved out of state, joined the military, worked in agriculture or some other capacity which isn't reported to the state.

The outlook for people who did not attend college is not promising. On average, Kentucky's public high school graduates from 2011-12 earned \$7,567 during fiscal year 2012-13. The 2009-10 graduates' wages three years later in 2012-13 were higher but only \$11,511. The idea of leaving high school for a high paying job in the factory or in Eastern Kentucky in a mine is the exception and not the rule. Even after three years, only a little more than one out of three who were employed were earning as much as a person who works full-time at a minimum wage job.

1.0 Average Earnings One, Two, and Three Years After Graduation for High School Graduates who Did Not Attend College



The Kentucky Center for Education and Workforce Statistics (KCEWS or "The Center") is a state agency charged with collecting data from education and workforce to conduct research and evaluation to inform decision makers throughout the Commonwealth. The Center maintains and continues to develop the Kentucky Longitudinal Data System (KLDS), Kentucky's P20/W statewide longitudinal data system.

1.1 Employment Rates, Average Wages, and Percent Earning Full-Time Equivalent* Wages by Characteristics for Kentucky Public High School Graduates One, Two, and Three Years Later

Characteristics	One Year After Graduation (Class of 2011-12)					Two Years After Graduation (Class of 2010-11)					Three Years After Graduation (Class of 2009-10)				
	Graduates Employed		Average Wages	Graduates Earning at or Above Full-Time Minimum Wage		Graduates Employed		Average Wages	Graduates Earning at or Above Full-Time Minimum Wage		Graduates Employed		Average Wages	Graduates Earning at or Above Full-Time Minimum Wage	
	N	%		N	%	N	%		N	%	N	%		N	%
Gender															
Females	4,296	60.2%	\$6,655	380	8.8%	3,723	59.3%	\$8,047	688	18.5%	3,227	59.4%	\$9,562	842	26.1%
Males	6,436	61.1%	\$8,329	1469	22.8%	5,800	61.6%	\$11,375	2123	36.6%	5,113	62.2%	\$13,180	2,270	44.4%
Race/Ethnicity															
African American	1,242	59.9%	\$5,605	109	8.8%	1054	56.7%	\$6,751	169	16.0%	918	65.1%	\$8,044	208	22.7%
Hispanic	227	40.2%	\$7,773	39	17.2%	206	39.7%	\$11,278	64	31.1%	129	32.7%	\$13,002	54	41.9%
Other	210	49.6%	\$6,415	33	15.7%	332	56.7%	\$7,689	61	18.4%	219	51.4%	\$11,388	90	41.1%
Caucasian	9,053	62.0%	\$7,860	1668	18.4%	7936	62.3%	\$10,410	2521	31.8%	7,080	62.0%	\$12,000	2,762	39.0%
Special Education															
No IEP on file	10,420	62.1%	\$7,641	1806	17.3%	9263	61.7%	\$9,978	2759	29.8%	8,065	62.1%	\$11,630	3,032	37.6%
IEP on file	312	34.7%	\$4,066	43	13.8%	265	38.1%	\$5,326	56	21.1%	281	41.8%	\$6,532	82	29.2%
Poverty (Free/Reduced Lunch Eligibility)															
Not Eligible for Free and/or Reduced Lunch	4,304	63.4%	\$8,195	865	20.1%	3991	63.2%	\$10,832	1329	33.3%	3,414	64.4%	\$13,099	1,467	43.0%
Eligible for Free and/or Reduced Lunch	6,428	59.0%	\$7,144	984	15.3%	5537	59.0%	\$9,140	1486	26.8%	4,932	59.0%	\$10,351	1,647	33.4%
Career and Technical Education Assessments															
ASVAB Passed***	390	65.1%	\$9,712	95	24.4%										
KOSSA Passed****	1,087	65.9%	\$10,088	283	26.0%										
WorkKeys Passed	922	67.0%	\$10,804	285	30.9%										
Industry Certification Passed	573	69.8%	\$10,653	167	29.1%										
College and Career Readiness**															
College and/or Career Ready	1402	65.1%	\$9,152	326	23.3%	595	56.2%	\$11,180	185	31.1%	367	56.0%	\$12,262	153	41.7%
Not College or Career Ready	9330	60.1%	\$7,391	1523	16.3%	8,933	61.0%	\$9,739	2,630	29.4%	7,979	61.4%	\$11,475	2,961	37.1%
ACT Composite (Junior Year)															
14 and below	3,008	60.6%	\$7,636	569	18.9%	3,016	62.8%	\$9,471	886	29.4%	3,104	63.5%	\$11,588	1,191	38.4%
15-18	3,747	68.6%	\$8,342	758	20.2%	3,201	69.2%	\$11,261	1,112	34.7%	2,770	67.0%	\$12,724	1,140	41.2%
19-23	1,946	68.3%	\$8,197	326	16.8%	1,406	66.4%	\$11,258	447	31.8%	896	62.8%	\$12,371	350	39.1%
24 and above	371	56.7%	\$6,782	45	12.1%	232	48.7%	\$10,251	68	29.3%	176	52.7%	\$12,107	71	40.3%
GPA at Graduation															
Less than 2.00	2,992	59.5%	\$6,074	411	13.7%	2,968	59.9%	\$7,559	704	23.7%	2,841	62.8%	\$9,473	854	30.1%
2.00 -2.49	3,248	64.5%	\$7,773	572	17.6%	2,964	64.4%	\$10,146	888	30.0%	2,526	64.3%	\$11,581	954	37.8%
2.5-2.99	2,696	63.1%	\$8,392	524	19.4%	2,219	63.5%	\$10,887	723	32.6%	1,852	62.3%	\$13,499	821	44.3%
3.00 or higher	1,796	53.9%	\$8,293	342	19.0%	1,377	52.2%	\$11,800	500	36.3%	1,127	50.7%	\$13,270	485	43.0%
Senior Year Attendance															
Fewer than 5 unexcused absences	4,162	56.6%	\$8,494	852	20.5%	3,773	56.2%	\$11,138	1,299	34.4%	3,257	58.1%	\$12,742	1,359	41.7%
5-9 unexcused absences	2,808	64.7%	\$7,753	510	18.2%	2,488	64.2%	\$10,550	764	30.7%	2,144	64.2%	\$11,641	825	38.5%
10-14 unexcused absences	1,421	63.3%	\$7,535	230	16.2%	1,238	63.5%	\$9,086	327	26.4%	1,197	64.4%	\$11,096	410	34.3%
15-19 unexcused absences	801	61.8%	\$6,190	99	12.4%	759	65.3%	\$7,555	174	22.9%	653	62.8%	\$8,796	195	29.9%
20 or more unexcused absences	1,391	63.1%	\$5,817	140	10.1%	1,270	63.4%	\$7,175	251	19.8%	1,095	60.6%	\$9,650	325	29.7%
Overall	10,732	60.7%	\$7,567	1,849	17.2%	9,528	60.7%	\$9,847	2,815	29.5%	8,346	61.1%	\$11,511	3,114	37.3%

*Full-time equivalent minimum wage is calculated as wages of \$15,080 or higher in Kentucky during the 2012-13 fiscal year.

**Career-readiness metrics were not introduced until 2011-12, so data for 2009-10 and 2010-11 only reflect college readiness.

***ASVAB is the abbreviation for the Armed Forces Vocational Aptitude Battery assessment (ASVAB).

****KOSSA is the abbreviation for the Kentucky Occupational Skill Standards Assessments (KOSSA).

Methodology

This study was developed by the Kentucky Center for Education and Workforce Statistics using the Kentucky Longitudinal Data System. Public high school graduates were identified from the K-12 records for the classes of 2009-10, 2010-11, and 2011-12. Graduates were compared against college records from in-state as well as out-of-state institutions through the National Student Clearinghouse to identify graduates who did not attend college through the 2012-13 academic year. Those records were then linked with the employment and wage data derived from the state Unemployment Insurance system. The study includes all public high school graduates for these periods. KCEWS estimates the wage and employment data includes about 90% of the people employed in Kentucky. Employment does not include people who join the military, work for the federal government, work in other states, or work in some limited fields which do not participate in the Unemployment Insurance system. All average wages presented are median wages for those who were employed from the group.

While wages appear low for the graduates who did not continue their education overall, some groups earned considerably less than others. On average, women and African Americans earned nearly a third less than their counterparts. Students who passed career-oriented assessments such as the Work Keys earned about 30 percent more in the year following graduation than the average graduate.

High school attendance has proven to be a strong indicator of future wages. Students with fewer unexcused absences earned more consistently over time than graduates who missed more days.

Table 1.1 includes the general employment rates, wages, and the percentage of those who were employed and earned the equivalent of full-time minimum wage of \$15,080 per year or above.

Demographics and Wages

While overall the trends suggest that people who do not attend college have relatively low wages, some groups are receiving lower wages than others. Disparity exists between men and women and between different ethnic groups.

Though women are more likely than men to attend college, those who do not earn considerably less than their male counterparts as illustrated in figure 2.1. One year after high school, females earned only 80 cents for every dollar that male graduates earned. Three years after graduation earnings for females dropped to 72.5 cents for every dollar earned by their male counterparts. By then, women were only a little more than half as likely to be employed full-time (or the equivalent).

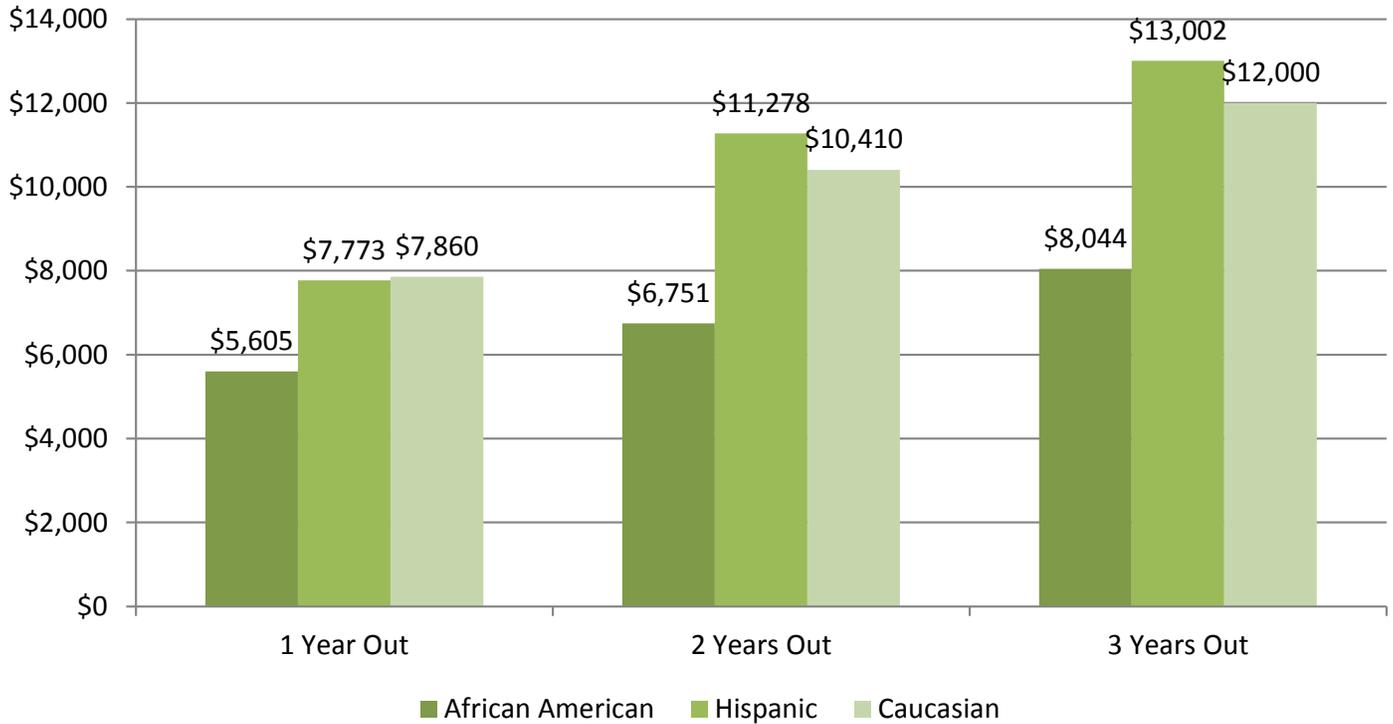
Kentucky's African American high school graduates who don't attend college earn considerably less than Caucasian or Hispanic graduates. Figure 2.2 shows average (median) wages by race/ethnic group. Three years after high school, African American graduates from 2009-10 earned an average of \$8,044 per year compared to \$13,002 for Hispanics and \$12,000 for Caucasians. Though average wages for Hispanic graduates are higher than other groups, the proportion employed in Kentucky three years after graduation is only about half that of African Americans or Caucasians (32.7% compared to 62% and 65.1% respectively).

Graduates from low-income families, based on their eligibility for free and/or reduced-price meals, were less likely to be employed and earned less than other students. On average, three years after high school students from poorer families earned 27 percent less than the other graduates.

2.1 Wages by Gender for Kentucky High School Graduates who Did Not Attend College



2.2 Wages by Race/Ethnicity for Kentucky High School Graduates who Did Not Attend College



2.3 Wages by Poverty Status for Kentucky High School Graduates who Did Not Attend College



High School Grades, Assessment Scores and Wages

While ACT scores are strong predictors of college success, in Kentucky the relationship between these assessments and graduate wages is not as strong. Two and three years after graduation, those who scored an ACT composite of 14 or below during their junior year had lower wages than graduates who scored higher, but the difference was not as distinguishable as it was for high school grades. Students who had a high school GPA lower than 2.0 earned 40 percent less than graduates who had earned a GPA of 3.0 or higher three years after high school.

Career readiness assessment data has only recently been integrated into the Kentucky Longitudinal Data System and was only available for graduates with one year of post-high school employment. In that year, students who passed the Kentucky Occupational Skill Standards Assessments (KOSSA), WorkKeys, or earned Industry Certifications all made higher wages on average than graduates who did not attend a postsecondary institution. They also earned more on average than those who had been in the workforce for two years after graduating from high school.

School Attendance and Employment

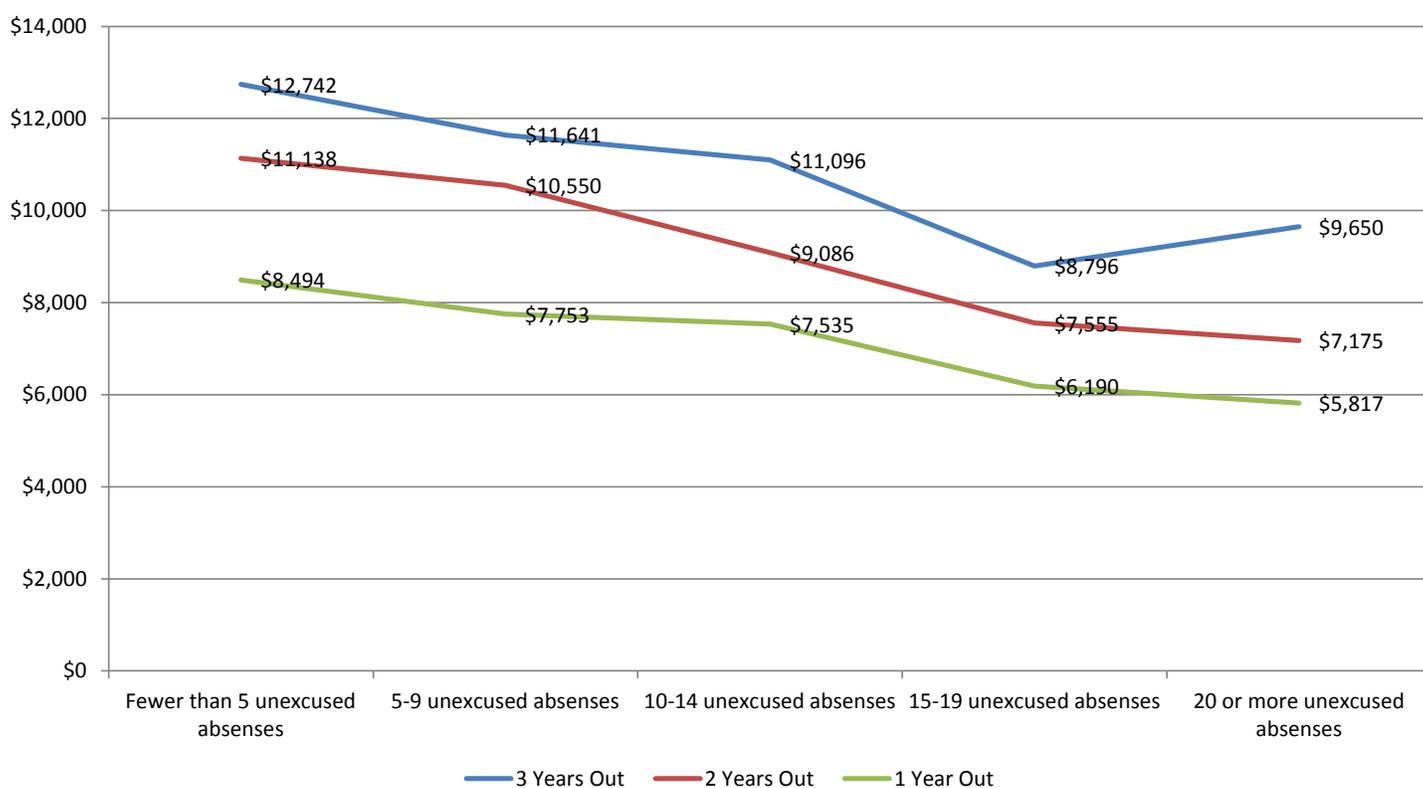
School attendance was a very strong indicator of employment outcomes for high school graduates. Students who missed 20 or more days as unexcused absences during their senior year earned as much as 55 percent less than their counterparts who had five or fewer unexcused absences.

The relationship between unexcused absences and wages appeared to remain consistent over time. Wages were higher for graduates who had better high school attendance whether they had been in the workforce just one, two, or three years. Even three years after graduation wage differences between those with fewer absences and those with more was still apparent as illustrated in figure 4.0.

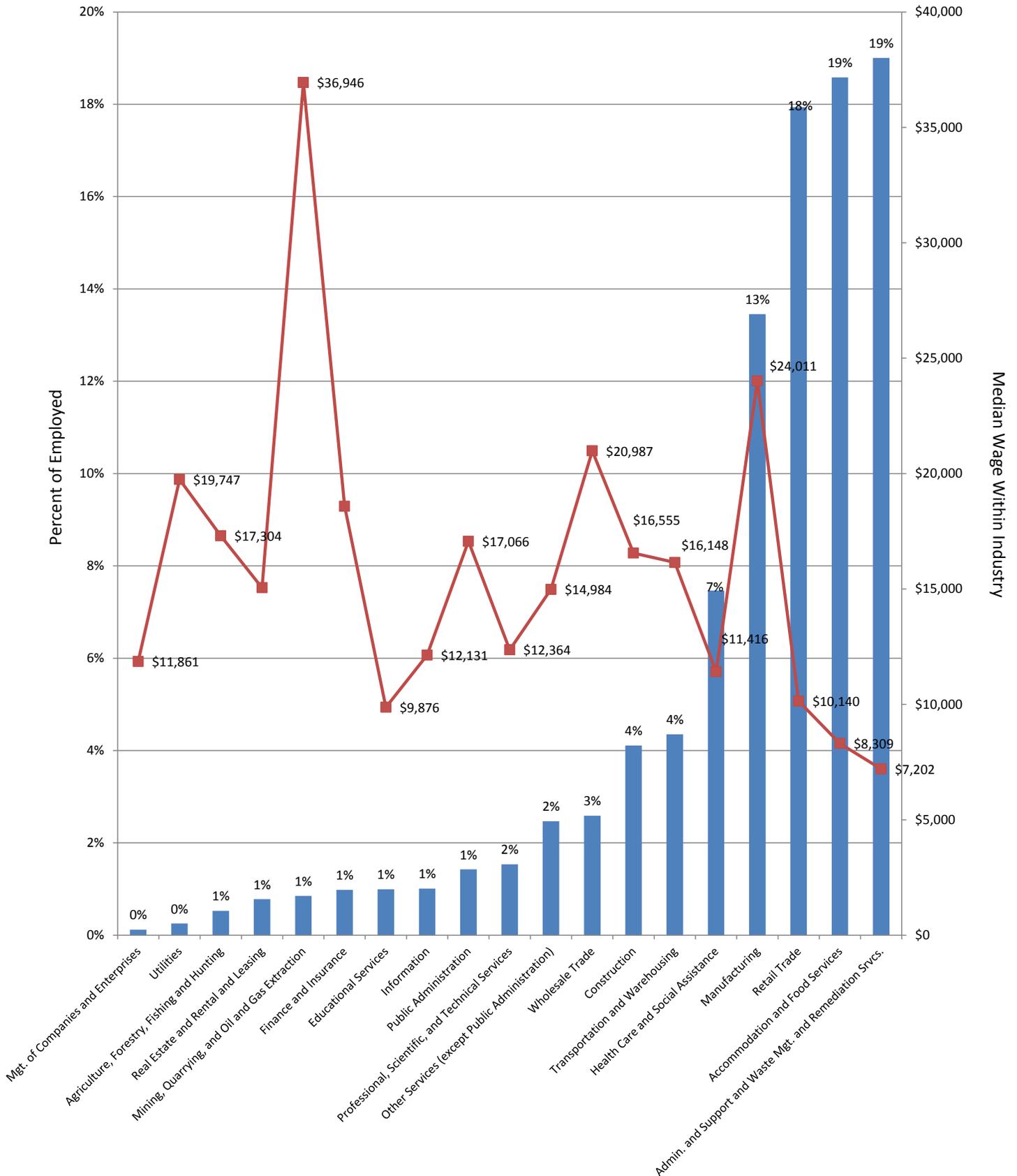
Industries and Wages

The majority of graduates working in Kentucky three years after high school worked in low paying industries. Nearly 60 percent of these high school graduates worked in retail trade; accommodation and food services; educational services; or administrative and support, waste management and remedia-

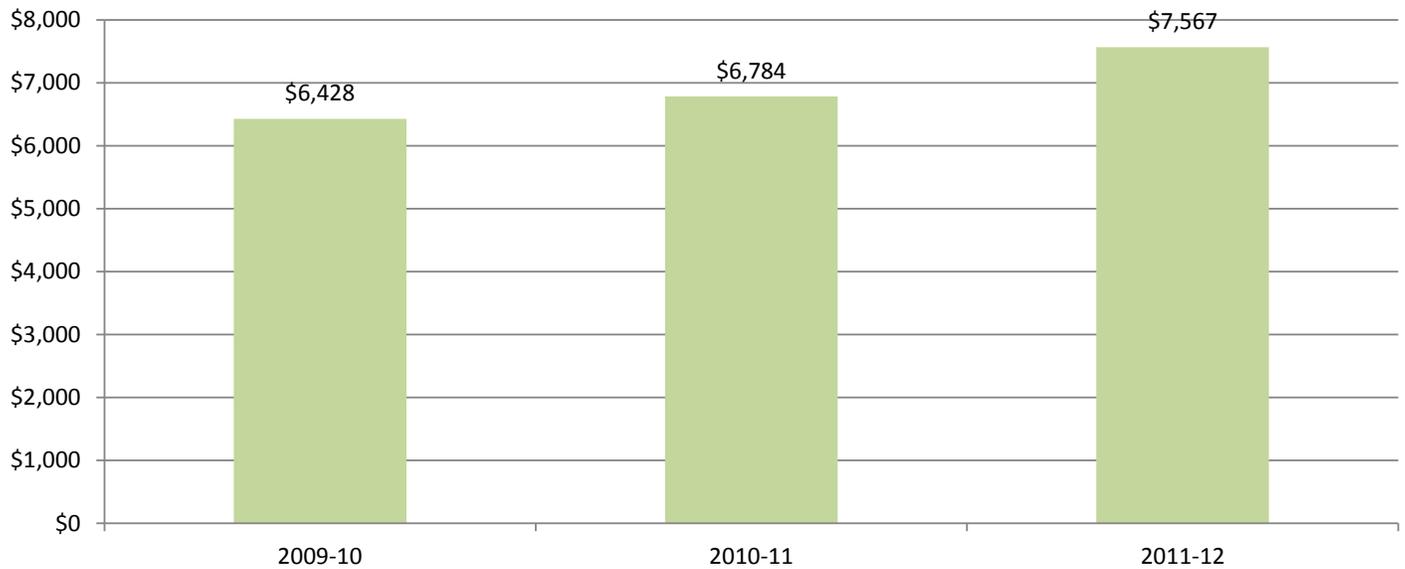
4.0 Wages Over Time by Senior Year Attendance for Kentucky High School Graduates who Did Not Attend College



5.0 In-State Employment and Median Wages by Industry for the 2009-10 High School Graduates who Did Not Attend College in 2012-13



6.0 First Year Wages for High School Graduates from 2009-10, 2010-11, and 2011-12



tion services — which includes cleaning up and removing toxic waste, lead paint, asbestos and other hazardous materials among other things. These are the four lowest paying industry categories based on average wages earned by these graduates. Three years after high school, graduates in these fields earned between \$7,202 and \$10,140 on average.

Manufacturing employed more than 10 percent of the high school graduates who did not attend college. Graduates who were employed in this type of industry earned more than full-time minimum wage. It accounted for 13 percent of employment for this group and had the second highest average wage by industry. The only industry which had higher average wages was mining, quarrying and oil extraction but it only accounted for 71 people out of the more than eight thousand graduates who were employed in Kentucky after three years.

Energy-related jobs identified as mining, quarrying and oil and gas extraction on graph 5.0 still pay the highest on average for these graduates who did not attend college. The average is higher than averages for a number of college credentials as previously reported by this Center but the sheer volume of people who are able to work in that industry is extremely small. In this case it was less than one percent.

Summary

In general, students who do not go to college earn considerably less than those who complete a college degree or creden-

tial. The majority are not employed full-time even three years after high school. Wages have increased over time as shown in figure 6.0 but at the current rate they will continue to significantly trail entry level average earnings for Associate and Bachelor degree recipients.

While it seems like common sense that people who go to college will earn more than people who don't, the difference in wages may not be as apparent. The employment outcomes for recent high school graduates who did not continue their education have, on average, been considerably less than what it would take for the average person to be self-sufficient or support a family.

Wage disparities for females, African Americans, and young people who came from lower income families were significant. For that majority who do not attend or complete a college credential, this suggests that the cycle of poverty for many of Kentucky's neediest will not end any time soon.

The preliminary data suggests that students who do not wish to go to college would be well served to gain work and technical skills in high school so they are better prepared to enter a career. The data are not yet available to see how they perform over time in terms of wages compared to those who do go to college but the initial findings show that they earn considerably more than their high school graduate counterparts who do not take or pass these assessments.



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603 Wilkinson Boulevard, Frankfort, KY 40601 • (502) 564-4194

P20@ky.gov • <http://kcews.ky.gov>