



# KENTUCKY'S DEGREE AND CREDENTIAL PRODUCTION 2013-2018

Degrees and credentials awarded by Kentucky's public universities, the campuses of the Association of Kentucky Colleges and Universities and the Kentucky Community and Technical College System

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## To Learn More

Visit the Council’s Degrees Dashboard at <http://cpe.ky.gov/data/degrees>.

## Questions

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## About the Council

The Council on Postsecondary Education is Kentucky’s higher education coordinating agency committed to strengthening our workforce, economy and quality of life. We do this by guiding the continuous improvement and efficient operation of a high-quality, diverse and accessible system of postsecondary education.

# EXECUTIVE SUMMARY

Kentucky's Degree and Credential Production report describes the state of postsecondary education degree and credential attainment between Academic Years (AY) 2013-14 and 2017-18. Using data from the Kentucky Postsecondary Education Data System (KPEDS), the report details the number and types of credentials earned at Kentucky's public universities, the campuses of the Association of Independent Kentucky Colleges and Universities (AIKCU) and the Kentucky Community and Technical College System (KCTCS).

This report is set within the larger context of the Council's goal to raise the percentage of Kentuckians with a high-quality college-level credential to 60% by the year 2030. To reach this goal, the number of Kentuckians with a credential requires a 1.7% annual growth until 2030. For additional perspective, Kentucky's educational attainment is also compared to the national average.

While the report shows impressive growth in degrees and credentials, especially with the gains made by underrepresented minorities, it also highlights the challenges moving forward and areas for improvement.

## Key Findings:

- Kentucky is on track to meet the educational attainment goal of 60% by 2030. Total undergraduate credentials increased 2.8% for AY 2018, which surpasses the 1.7% growth needed to achieve Kentucky's educational attainment goal.
- Comparing FTE enrollment to unduplicated credentials awarded:
  - The KCTCS boosted credentials by 4.9% over five years, while experiencing an enrollment decline of 15.5% over the same period.
  - Public universities increased credentials by 9.9%, while enrollment decreased 2% over five years.
  - Credential production by AIKCU campuses decreased 2.4% while experiencing steady enrollment over the five-year period.
- Overall duplicated credential production by Kentucky's public universities, AIKCU campuses and KCTCS experienced a one-year increase of 4% and a five-year increase of 11.4%.
  - Short-term certificates issued by all institutions grew 5.8% between AY 17 and AY 18, while posting an 18.3% gain over five years.
  - Associate degrees experienced a one-year decrease of 2% and a five-year decrease of 1.8%.
  - The area of study with the largest growth was STEM with one-year increases of 9.2% at the undergraduate level and 55.1% at the graduate level.
  - At the baccalaureate level, education degrees did not grow over the one-year period, while posting the largest five-year decline at 13.2%.
- Overall duplicated credential production by underrepresented minority (URM) students increased 7.2% over one year and 23% over five years. At the undergraduate level, bachelor's degrees experienced the greatest five-year gain at 23.9%; at the graduate level, doctorates grew substantially with a 42.5% increase, followed by master's degrees at 22.3% over the five-year period.
- Low-income, underrepresented minority students experienced gains in every credential category, based on duplicated counts. Short-term certificates experienced a 10.4% gain, while associate degrees increased 20.8% and bachelor's degrees increased 18.3%.



# OVERVIEW OF CREDENTIAL GROWTH

**Table: Total Degrees and Credentials**

Duplicated Counts, Awarded by Kentucky Public Universities, AIKCU Colleges and KCTCS

	2013-14	2014-15	2015-16	2016-17	2017-18	5-year Change
Short-Term Certificates	22,325	20,690	21,461	24,953	26,405	18.3%
Associate	10,846	10,789	10,665	10,867	10,652	-1.8%
Bachelor's	21,634	22,041	22,799	23,189	23,666	9.4%
Graduate Certificate	491	462	542	498	575	17.1%
Specialist	166	234	322	412	416	150%
Master's	8,161	8,108	8,121	8,274	9,114	11.7%
Doctorate	1,858	1,804	1,919	1,953	2,110	13.6%
Total	65,481	64,128	65,829	70,146	72,936	11.4%

## Understanding Terms

**Duplicated counts:** The numbers reported are credentials, not students. For example, if one student earns three certificates in one year, the reported number includes each certificate earned.

**Unduplicated counts:** The numbers reported are graduates with a credential, not a count of the credentials earned. For example, if one student earns two certificates, the reported number represents the one student.

**Underrepresented minority:** a student whose race is Black; American Indian or Alaskan Native; Hispanic or Latino; Native Hawaiian or Other Pacific Islander; or if the student is of two or more races.

**Low-Income:** A student who is a Pell recipient at any point during enrollment.

**Short-term certificates:** Undergraduate credentials that include diploma or certificate programs lasting one semester to four years.

## Understanding Areas of Study

**Arts and Humanities** (abbreviated in charts as "Arts") - Includes ethnic studies, foreign languages, literature, liberal arts and sciences, philosophy, religious studies, history and visual/performing arts.

**Business and Communication** (abbreviated in charts as "Business")- Includes communication, journalism, business, management, marketing and related support services.

**Education** - Includes teacher preparation programs and other education-related fields.

**Health** - Includes health professions and related programs.

**Social and Behavioral Sciences and Human Services** (abbreviated in charts as "SB Sciences") - Includes consumer sciences, legal professions, library science, recreation/fitness studies, public administration and social services/sciences.

**Science, Technology, Engineering and Mathematics** (abbreviated STEM) - Includes architecture, computer and information sciences, engineering, biological/biomedical fields, mathematics, and physical sciences.

**Trades** - Includes personal and culinary services, homeland security, law enforcement, firefighting, construction, mechanical and production-related fields and transportation.

# MEETING THE 60x30 GOAL

## Setting the Goal for Kentucky

The Council has set an ambitious goal for Kentucky: to raise the percentage of Kentuckians with a high-quality postsecondary credential to 60% by the year 2030. However, success depends on a number of economic, cultural, sociological, educational and biological factors. For example, public policy and economic change affect the inward and outward migration of state residents.

Nationally, 47.6% of working-age adults have some postsecondary education, which includes

diplomas, certificates and degrees conferred by a college. Increasing this attainment rate is critical for meeting current and future workforce demands. Kentucky is close to the national average, having 45.5% of working-age adults with some postsecondary education. While Kentucky is behind the national average in adults with bachelor and graduate degrees, it has more residents with short-term certificates than most states.

### Chart: Comparison of Kentucky's Educational Attainment to the National Average

Highest Credential Earned by Resident Adults, Ages 25-64

No High school Diploma or GED



Associate Degree



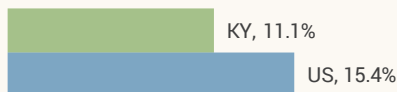
High School Diploma or GED



Bachelor's Degree



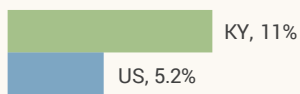
Some College, No Credential



Graduate or Professional Degree



Certificate



Source: A Stronger Nation. Lumina Foundation.

## Kentucky's Progress

To reach the 60x30 goal, the number of Kentuckians with a credential needs to increase by 1.7% each year until 2030. During both 2017 and 2018 academic years, Kentucky met this trajectory need with increases of 4.26% and 2.79%, respectively.

### Table: Growth in Kentucky's Credential Holders

Progress Toward the 2030 Goal

	Needed	Actual	Goal Met
2016	1.7%	.31%	✗ No
2017	1.7%	4.26%	✓ Yes
2018	1.7%	2.79%	✓ Yes

# MEETING THE 60x30 GOAL

## The Challenge of Declining Enrollment

According to the National Student Clearinghouse, college enrollment has fallen nationally by 16.6% since 2011. Following this trend, Kentucky's institutions have experienced flat to declining enrollment over the past five years.

However, credential growth has increased at both public universities and community colleges, again indicating that campus completion efforts and innovative game-changing strategies are working.

**Table: Comparison of Undergraduate Full-Time Equivalent (FTE) Enrollment and Credentials Awarded**

Unduplicated Counts, Based on Fall Enrollment

	2013-14	2014-15	2015-16	2016-17	2017-18	5-year Change
<b>KCTCS</b>						
FTE	51,868	49,613	45,771	44,776	43,820	-15.5%
Credentials Awarded	15,958	15,227	14,843	16,146	16,733	4.9%
<b>Public Universities</b>						
FTE	87,696	88,388	88,450	87,230	85,956	-2%
Credentials Awarded	17,671	17,994	18,419	18,925	19,422	9.9%
<b>AIKCU</b>						
FTE	28,855	27,602	27,598	27,831	28,626	-.1%
Credentials Awarded	4,845	4,852	4,900	4,702	4,728	-2.4%

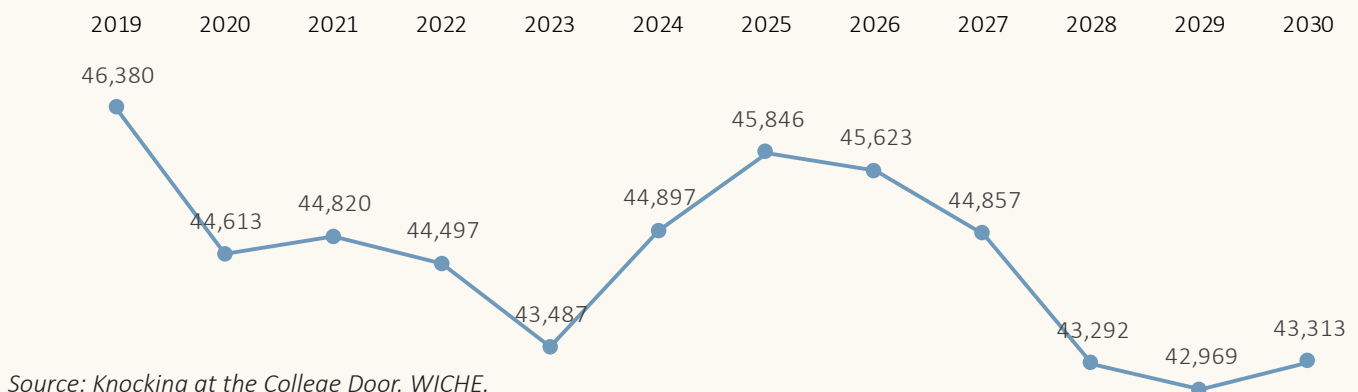
## Retrofitting the Student Pipeline

While Kentucky has been successful in increasing the number of credential holders in 2017 and 2018, this progress cannot be sustained on traditional college-going students, alone. It is anticipated that Kentucky's pipeline of high school graduates will decrease by the goal year of 2030.

Given the projected decline, the Council is creating strategies for increasing enrollment of adults with some college credit, recruiting more students to Kentucky, and encouraging a larger portion of high school graduates to continue some form of postsecondary education.

**Chart: Projected Decline in Kentucky High School Graduates**

Total of Public and Private High School Graduates Based on Birth Rates and Enrollment Trends



# CREDENTIAL PRODUCTION BY SECTOR

## Progress Experienced by All Sectors

Overall credential production has increased 11.4% over the past five years. AIKCU institutions experienced the greatest gain at 16.7%.

A decline in associate degrees awarded affected both four-year institutions and KCTCS. This follows a national trend; only 16 states have

experienced increases in associate degree output. However, Kentucky's gains in bachelor's degree output ranks Kentucky 16th in the nation, with an overall percentage change of 9.4% over the past five years.

**Table: Growth in Credentials**

Duplicated Counts, Awarded by Kentucky Public Universities, AIKCU Colleges and KCTCS

	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Change
<b>KCTCS</b>						
Short-Term Certificate	22,135	20,380	21,103	24,552	25,769	16.4%
Associate	9,580	9,632	9,662	9,950	9,649	0.7%
Total	31,715	30,012	30,765	34,502	35,418	11.7%
<b>Public Universities</b>						
Short-Term Certificate	177	299	348	400	630	256%
Associate	846	792	686	674	734	-13.2%
Bachelor's	17,096	17,468	18,095	18,619	19,108	11.8%
Graduate Certificate	471	442	513	481	558	18.5%
Specialist	110	130	137	163	145	31.8%
Master's	5,687	5,698	5,702	5,576	5,608	-1.4%
Doctorate	1,670	1,604	1,659	1,647	1,736	39.5%
Total	26,057	26,433	27,140	27,560	28,519	9.4%
<b>AIKCU</b>						
Associate	420	365	317	243	269	-40%
Bachelor's	4,538	4,573	4,704	4,570	4,557	0.4%
Graduate Certificate	20	20	29	17	17	-15%
Specialist	56	104	185	249	270	382%
Master's	2,474	2,410	2,419	2,698	3,506	41.7%
Doctorate	188	200	260	306	374	99%
Total	7,709	7,683	7,924	8,084	8,999	16.7%

# CREDENTIAL PRODUCTION BY AREA OF STUDY

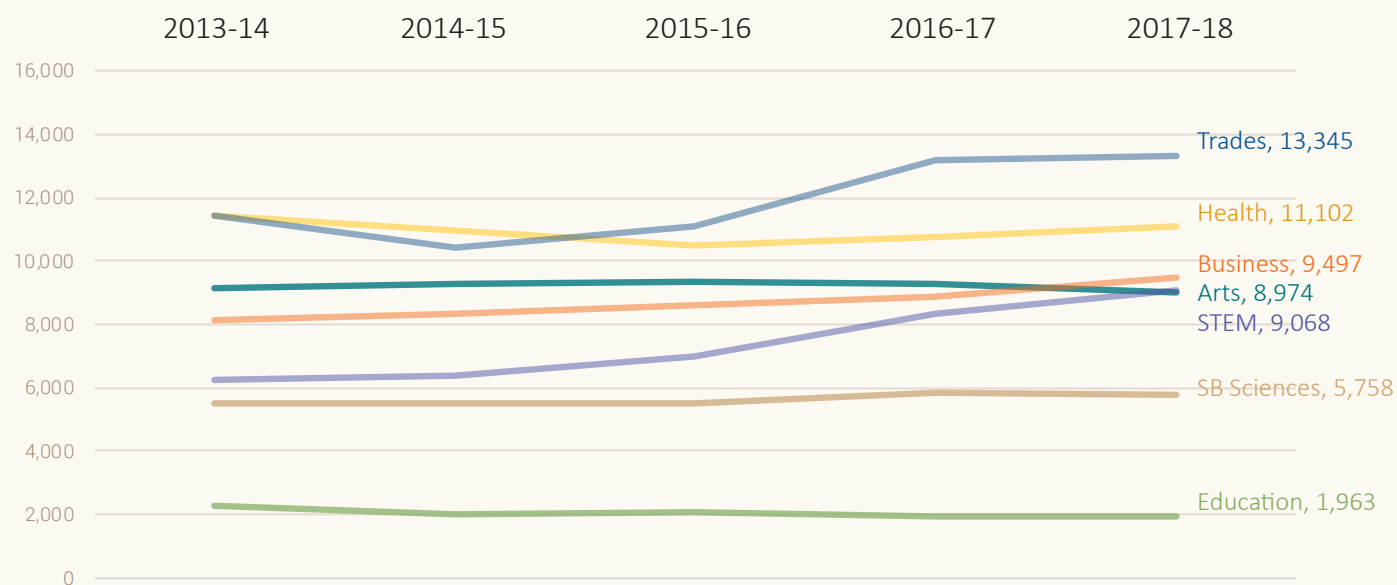
## Undergraduate STEM Majors Outpace Trades

While trades surpass other majors when it comes to volume, this increase is attributable to stackable short-term certificates. (Unduplicated counts for this area increased from 4,139 to 4,539, an increase of 9.7% over five years.) Science, technology, education and mathematics (STEM) programs gained 45.4%, leading all areas of study. Also experiencing an increase was business and communication at 16.8%.

While health and education experienced modest one-year gains, overall credentials in these areas have decreased 2.9% and 13.2%, which are the largest decreases of all the undergraduate majors. Within health, the programs with the largest decreases were in non-bachelor degree programs related to nursing.

**Chart: Trends in Undergraduate Credential Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities, AIKCU Colleges and KCTCS



**Table: Undergraduate Credential Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities, AIKCU Colleges and KCTCS

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
2013-14	9,119	8,130	2,261	11,434	6,238	5,504	11,419
2014-15	9,266	8,326	2,014	10,988	6,357	5,484	10,400
2015-16	9,368	8,619	2,073	10,520	6,976	5,499	11,090
2016-17	9,285	8,861	1,959	10,770	8,307	5,824	13,207
2017-18	8,974	9,497	1,963	11,102	9,068	5,758	13,345
1-Yr. Change	-3.3%	7.2%	0.2%	3.1%	9.2%	-1%	1%
5-Yr. Change	-1.6%	16.8%	-13.2%	-2.9%	45.4%	4.6%	16.9%

A key to abbreviations used and definitions for areas of study can be found on page 4.



# CREDENTIAL PRODUCTION BY AREA OF STUDY

## KCTCS Short-Term Certificates Experience Gains in All Majors

Short-term certificates awarded by KCTCS increased for every major, with the largest experienced by STEM at 71.1%. Also experiencing

significant gains were majors in arts and humanities (55.1%) and social and behavioral sciences and human services (42.8%).

**Table: KCTCS Short-Term Certificate Growth by Area of Study**

Duplicated Counts, Awarded by KCTCS

	Arts	Business	Health	STEM	SB Sciences	Trades
2013-14	49	2,625	5,363	2,435	596	8,790
2014-15	73	2,503	5,262	2,360	499	7,729
2015-16	60	2,563	4,883	2,693	562	8,533
2016-17	75	2,673	4,944	3,664	703	10,275
2017-18	76	3,154	5,119	4,167	851	10,309
1-Yr. Change	-	18%	3.5%	13.7%	21%	0.3%
5-Yr. Change	55.1%	20.2%	4.5%	71.1%	42.8%	17.3%

*Note: Fewer than 10 certificates in "Education" were awarded each year of the five-year span.*

## Trades, STEM Lead in Associate Degrees

While the majority of associate degree majors experienced declines, this was due to the overall decrease in the number of associate degrees awarded. Health areas posted the sharpest decrease at 16.3% over the five-year period.

Of those majors seeing increases, Trades experienced the greatest gains with an one-year increase of 17.2% and a five-year increase of 26.9%. STEM followed with a 13% five-year increase.

**Table: Associate Degree Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities, AIKCU Colleges and KCTCS

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
2013-14	5,687	632	96	2,655	537	299	896
2014-15	5,805	607	74	2,512	554	322	875
2015-16	5,977	586	61	2,284	539	343	838
2016-17	6,068	564	82	2,194	580	371	970
2017-18	5,611	601	86	2,222	607	320	1,137
1-Yr. Change	-7.5%	6.6%	4.9%	1.3%	4.7%	-13.7%	17.2%
5-Yr. Change	-1.3%	-4.9%	-10.4%	-16.3%	13%	7%	26.9%

A key to abbreviations used and definitions for areas of study can be found on page 4.

# CREDENTIAL PRODUCTION BY AREA OF STUDY

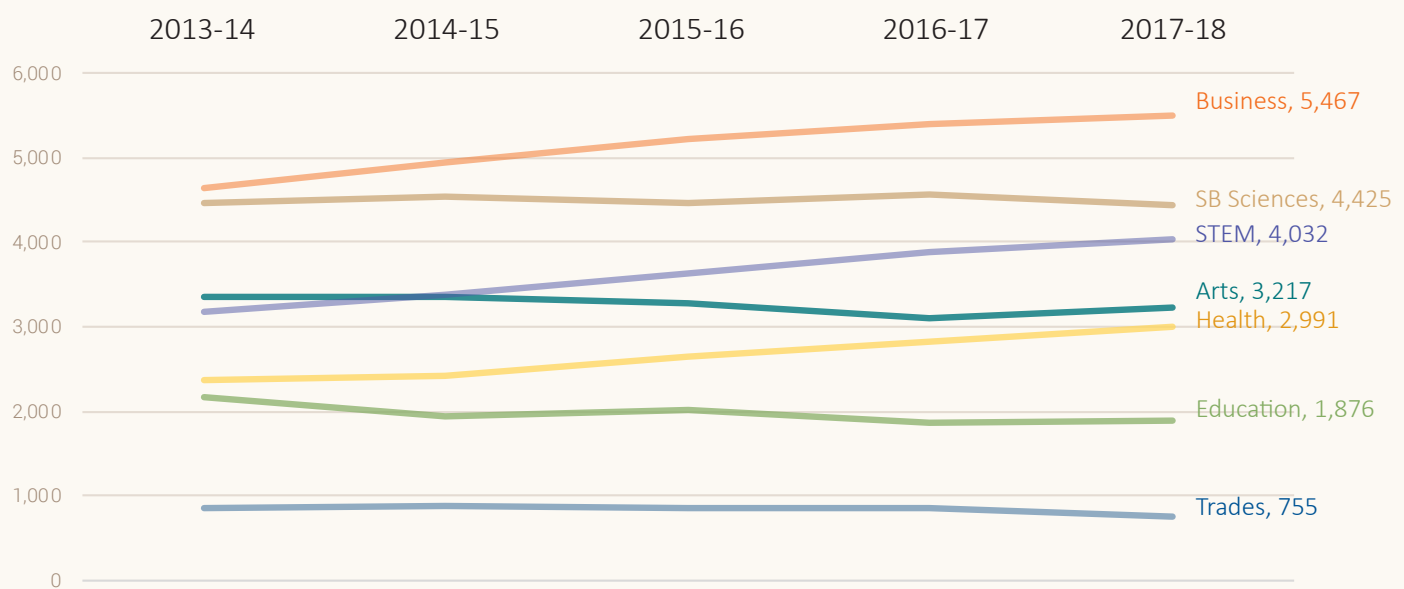
## STEM, Health Lead Baccalaureate Areas

Two of Kentucky's high-need areas - health and STEM - both experienced increases at the baccalaureate level at 27.4% and 26.3%, respectively. Also seeing an increase were majors in the area of business and communication with a one-year gain of 1.4% and a five-year gain of 17%.

Education experienced the greatest decline, with no growth over one year and a 13.2% decrease over five years. While social and behavioral sciences and human services experienced a small one-year decrease (2.9%), it held steady at .5% over the last five years.

**Chart: Trends in Bachelor's Degree Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities and AIKCU Colleges



**Table: Bachelor's Degree Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities and AIKCU Colleges

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
2013-14	3,357	4,646	2,162	2,368	3,164	4,458	849
2014-15	3,349	4,947	1,931	2,413	3,375	4,540	883
2015-16	3,270	5,229	2,008	2,644	3,622	4,466	862
2016-17	3,091	5,392	1,875	2,810	3,887	4,558	860
2017-18	3,217	5,467	1,876	2,991	4,032	4,425	755
1-Yr. Change	4%	1.4%	-	6.4%	37.3%	-2.9%	-12.2%
5-Yr. Change	-4.2%	17.7%	-13.2%	26.3%	27.4%	0.7%	-11.1%

A key to abbreviations used and definitions for areas of study can be found on page 4.

# CREDENTIAL PRODUCTION BY AREA OF STUDY

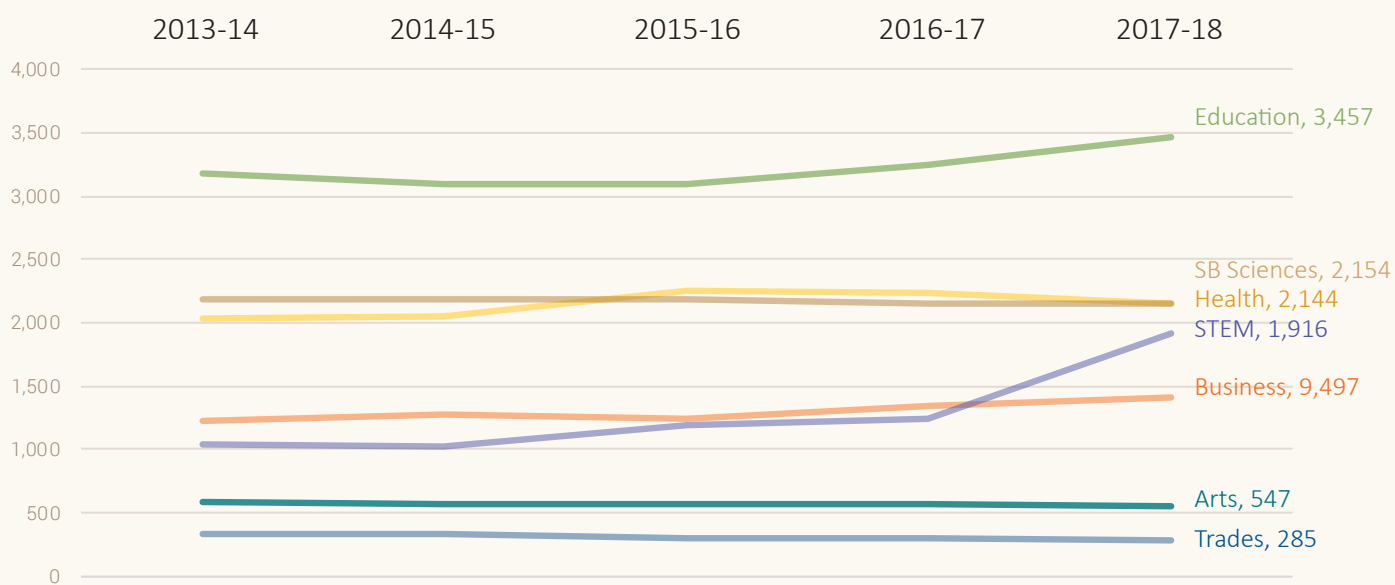
## STEM Credentials Almost Doubled at Graduate Level

At the graduate level, STEM fields experienced the greatest increases with gains of 55.1% over one year and 85.3% over five years. Other areas seeing increases were business and communication, education and health.

Trades experienced the greatest change with decreases at both one-year (7.5%) and five-year (13.6%). Other five-year declines include arts and humanities (6%), followed by social and behavioral sciences and human services (-1.5%).

**Chart: Trends in Graduate Credential Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities and AIKCU Colleges



**Table: Graduate Credential Growth by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities and AIKCU Colleges

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
2013-14	583	1,230	3,183	2,026	1,034	2,186	330
2014-15	575	1,269	3,086	2,046	1,031	2,192	328
2015-16	561	1,249	3,095	2,250	1,188	2,182	294
2016-17	563	1,335	3,236	2,236	1,235	2,149	308
2017-18	547	1,412	3,457	2,144	1,916	2,154	285
1-Yr. Change	-2.8%	5.8%	6.8%	4.1%	55.1%	0.2%	-7.5%
5-Yr. Change	-6%	14.8%	8.6%	5.8%	85.3%	-1.5%	-13.6%

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# CREDENTIAL PRODUCTION BY UNDERREPRESENTED MINORITIES

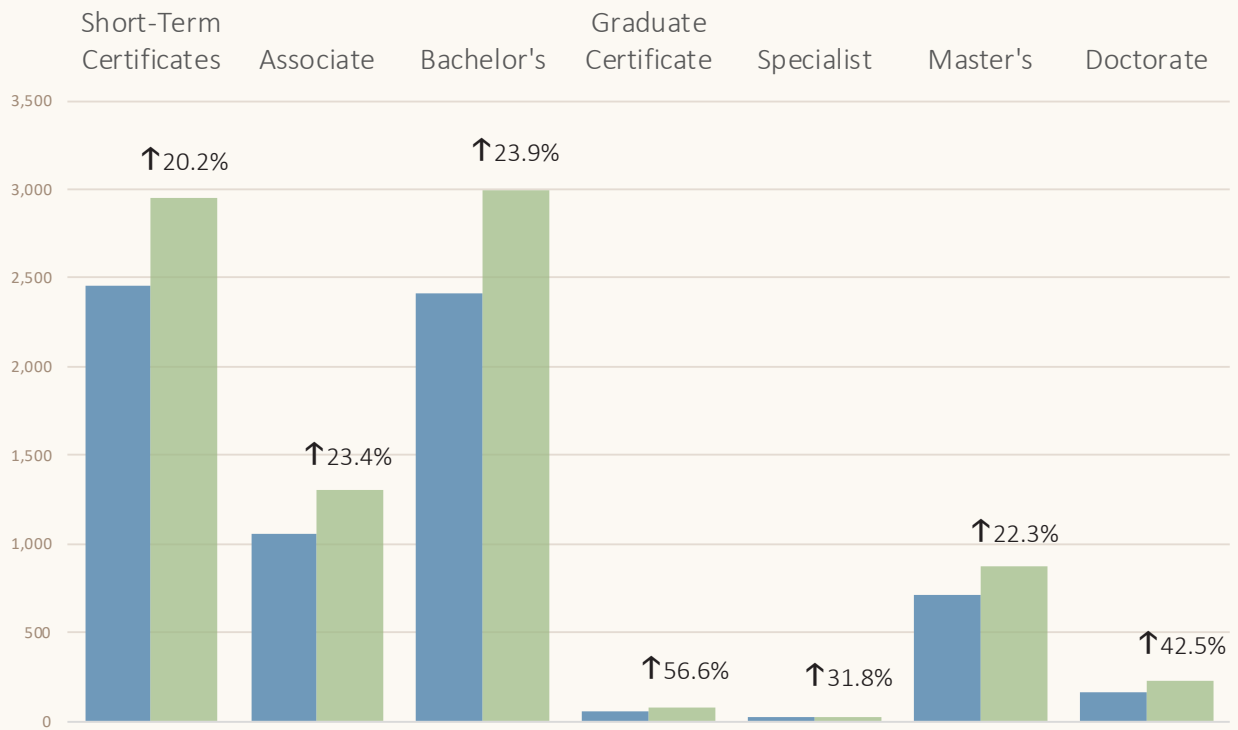
## URM Students Excel in Every Credential Category

Credentials earned by Kentucky's underrepresented minority (URM) students increased at both the undergraduate and graduate levels. The greatest undergraduate gains were in

bachelor's degrees at 23.9% and associate degrees at 23.4%. At the graduate level, doctorates saw a substantial increase at 42.5%, followed by master's degrees at 22.3%.

### Chart: Five-Year Progress of Kentucky's Underrepresented Minority Students

Duplicated counts awarded by Kentucky's Public Universities, AIKCU Colleges and KCTCS



### Table: Credential Growth of Underrepresented Minority Students

Duplicated counts awarded by Kentucky's Public Universities, AIKCU Colleges and KCTCS

	2013-14	2014-15	2015-16	2016-17	2017-18	1-Year Change	5-Year Change
Certificate	2,452	2,270	2,259	2,610	2,947	12.9%	20.2%
Associate	1,054	1,103	1,215	1,225	1,301	0.82%	23.4%
Bachelor's	2,415	2,513	2,708	2,920	2,993	2.5%	23.9%
Graduate Certificate	55	58	70	65	83	27.7%	56.6%
Specialist	22	23	24	35	29	-17.1%	31.8%
Master's	719	785	841	864	879	1.7%	22.3%
Doctorate	160	147	154	173	228	31.8%	42.5%
Total	6,875	6,899	7,271	7,892	8,460	7.2%	23%

# CREDENTIAL PRODUCTION BY UNDERREPRESENTED MINORITIES

## STEM Leads in Areas of Study for URM Students

At both the undergraduate and graduate levels, STEM led as the top major for URM students over the past five years. Another area posting increases

at both levels was education, with gains of 22.3% in undergraduate credentials and 45.6% in graduate credentials.

**Table: Credential Growth of Underrepresented Minority Students by Area of Study**

Duplicated counts awarded by Kentucky's Public Universities, AIKCU Colleges and KCTCS

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
<b>URM Undergraduate</b>							
2013-14	1,024	907	184	1,061	547	924	1,229
2017-18	1,313	1,097	225	1,249	940	997	1,340
5-Year Change	28.2%	20.9%	22.3%	17.7%	71.8%	7.9%	9%
<b>URM Graduate</b>							
2013-14	68	100	228	180	60	278	34
2017-18	57	149	332	207	102	319	33
5-Year Change	-16.2%	49%	45.6%	15%	70%	14.7%	-2.9%

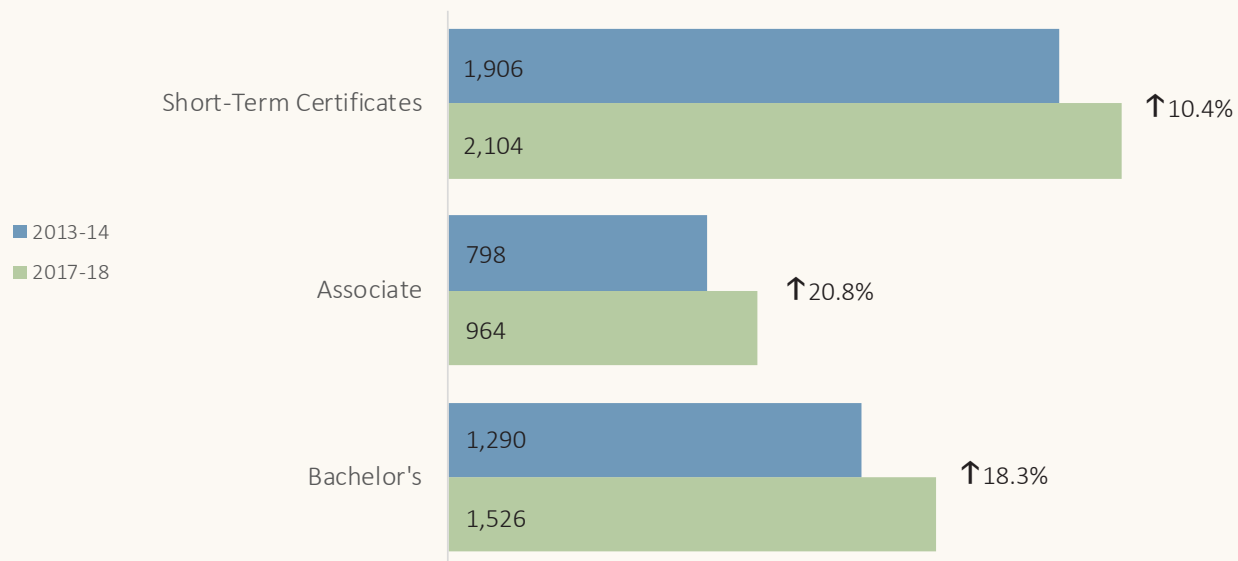
## Substantial Gains for Low-Income URM Students at Undergraduate Level

Undergraduate credentials earned by Kentucky's low-income, underrepresented minority students also experienced gains in every category.

Short-term certificates grew 10.4%, while associate degrees climbed 21%, with bachelor's degrees following at 18.3%.

**Chart: Five-Year Progress of Kentucky's Low-Income, Underrepresented Minority Students**

Duplicated counts awarded by Kentucky's Public Universities and KCTCS



A key to abbreviations used and definitions for areas of study can be found on page 4.

# CREDENTIAL PRODUCTION BY LOW-INCOME STUDENTS

## Short-Term Certificates Most Pursued by Low-Income Students

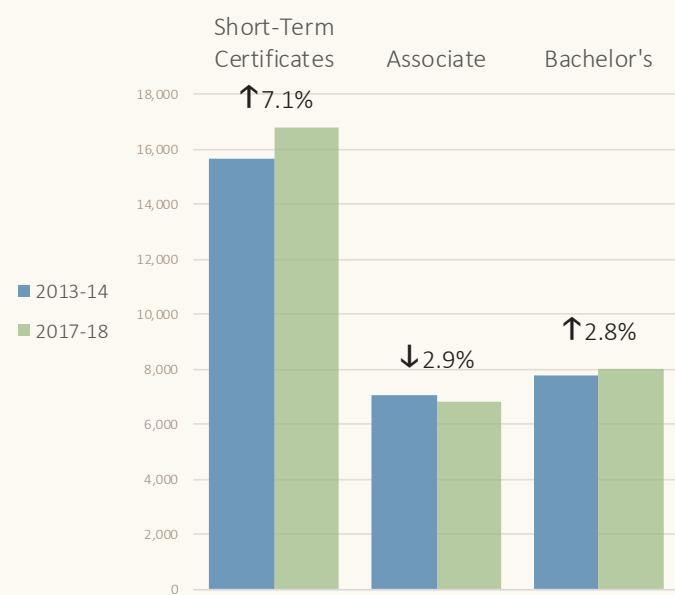
Undergraduate credentials earned by Kentucky’s low-income students increased 3.7% overall. Among undergraduate majors, STEM saw significant growth at 45.5%, while education declined by 17.8% and health decreased by 9.4%.

The gains and losses made by low-income students are opposite trends compared to underrepresented minority students, which are a much smaller proportion of the overall student

population. While credential production has been small by low-income students, this comes in spite of an enrollment decline, as experienced by the general student population over the last five years.

**Chart: Five-Year Progress of Kentucky’s Low-Income Students**

Duplicated counts awarded by Kentucky’s Public Universities and KCTCS



	2013-14	2017-18	5-Year Change
Certificate	15,653	16,757	7%
Associate	7,036	6,835	-2.9%
Bachelor's	7,785	8,003	2.8%
Total	30,474	31,595	3.7%

*Note: The Council does not collect degree data for low-income students attending AIKCU colleges or those low-income students pursuing graduate-level degrees and credentials at either Kentucky’s public or AIKCU institutions.*

**Table: Undergraduate Credential Growth of Low-Income Students by Area of Study**

Duplicated Counts, Awarded by Kentucky Public Universities and KCTCS

	Arts	Business	Education	Health	STEM	SB Sciences	Trades
2013-14	5,231	4,117	897	7,073	2,934	2,507	7,458
2017-18	5,047	4,370	737	6,410	4,268	2,556	7,932
5-Year Change	-3.5%	6.1%	-17.8%	-9.4%	45.5%	19.5%	6.4%

A key to abbreviations used and definitions for areas of study can be found on page 4.



 **Kentucky Council on  
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