

Introduction

Recruiting and retaining teachers is a major issue (Schmitt & deCourcy, 2022), not only for educational attainment but for states' overall workforce and economy. Fifteen southern states saw declines in the number of new teacher candidates graduating (U.S. ED) from preparation programs, totaling over 16,000 or 23% fewer teachers completing educator preparation in 2022 than in 2013. According to SREB's analysis of available state reported data among the 16 states in the Southeast, up to 30% of the total teacher workforce is inexperienced, uncertified and/or teaching out of field (SREB, 2023).

The United States faces persistent challenges in filling vacancies and preventing shortages (García & Weiss, 2019). Since the Great Recession that started in 2007, every state in the south has faced a growing teacher shortage, with critical shortages in at least three subject areas, and some face shortages in all grades and subjects (U.S. Department of Education, 2023). Schools in the south, schools with higher percentages of students whose families are living in poverty, and schools with greater percentages of students of color are more likely to have teacher vacancies. The COVID-19 pandemic has only exacerbated the shortage of teachers (Schmitt & deCourcy, 2022). Recent data from the School Pulse Panel and Principal Survey found that 37% of public schools reported at least one teaching vacancy in October of 2023 (NCES, 2023). Further, a RAND survey of district leaders suggests that the percentage of teachers who retired or resigned increased from 6% in 2019-20 to 10% in 2021-22 (Diliberti & Schwartz, 2023).

The current shortage of qualified teacher candidates is reflective of shifting perceptions of teaching as a career. Interest in pursuing careers in education has dwindled to historically low numbers among high school and college students (Bartanen & Kwok, 2023; Kraft and Lyon, 2022). Surveys of parents show drops in the percentage of parents who say they would like their children to be teachers (NORC, 2022). The COVID-19 pandemic has only exacerbated concerns with teacher recruitment, as undergraduate students' have only become less inclined to consider a career in education (Bill et al., 2022). Concerns over school safety and the rise in school shootings in recent years may also contribute to declining interest in teaching (Kraft & Lyon, 2022).

Teacher shortage concerns, compounded with declining interest in teaching as a career, place teacher recruitment and preparation in the policy spotlight. Traditionally, we look to high school and college students as our future teachers, making individuals from Generation Z born between 1996 and 2012 our future potential teachers. In 2023, the youngest among Generation Z was 11 and the eldest was 27. Compared with the previous Millennial generation, Gen Z is more ethnically and racially diverse and is more likely to be enrolled in college. Further, Gen Z reports

wanting jobs that give them a sense of purpose, are aligned with their values, allow for flexibility, and provide a supportive work environment. Understanding this group’s interest in teaching and career trajectories into teaching can inform strategies for alleviating teacher shortages.

Against this background, TERA researchers studied the interest in teaching as a profession among prospective teachers. Our analysis uses ACT student survey data, high school student course taking data, and statewide data on educators to examine interest in teaching among high school students. We track the number of high school students taking “teaching as a profession courses” and entrants into teaching by preparation pathway.

Specifically, this study aims to describe how interest in a career in education has shifted in terms of high school students’ aspirations to pursue a career in teaching, as well as recent trends in preparation pathways among newly hired educators. Using data from the ACT combined with rich teacher workforce data from Kentucky and Tennessee, we address the following questions:

1. What percentages of high school juniors and seniors intend to major in education?
2. What percentages of high school juniors and seniors intend K-12 teaching as their occupation
3. What does enrollment in “teaching as a profession” courses look like over time?
4. How have the certification pathways of newly certified teachers changed from 2017 to 2023?

Research Overview

Prior to the analysis, we conducted a synthesis (Smith et al., 2023) of published surveys and research studies exploring the newest generation to enter the workforce, Generation Z. A summary of findings is reported below.

Who is Gen Z?

- Generation Z is racially and ethnically diverse, tech-savvy, and more likely to be enrolled in college than prior generations. Nearly half of Gen Z comes from low-income backgrounds.
- Gen Z is more worried about societal challenges and reports greater mental health needs than other generations.

- Gen Z wants jobs that give them a sense of purpose, are aligned with their values, allow for flexibility, and provide a supportive work environment.
- Enrollment in educator preparation programs began declining in 2010 with the end of the Millennial generation and has hit historic lows following Gen Z's entrance into higher education starting in 2014.
- Gen Z is less interested in teaching as a career than earlier generations.

Necessary Supports and Structures for Gen Z

- Gen Z teachers are entering or working in schools where educator confidence in the teaching profession is low. Educators reported needing improved salaries, mental and physical health supports, and adequate classroom funding. In particular, Gen Z teachers need access to mental health support and positive school environments, as well as training for teaching diverse learners and using digital technology for instruction.
- Gen Z teachers seek advancement opportunities at work and value collaboration, flexibility, and ongoing mentorship.
- Gen Z teachers expect to use instructional technology in their classrooms. Educator preparation programs need to model how to use technology, particularly mobile technology, in instruction.

State and District Efforts to Expand Teacher Recruitment

- Grow Your Own pathways, where states, districts or community-based organizations partner with teacher education preparation programs and recruit teacher candidates locally, are increasingly being used to address the teacher shortage.
- States are using more non-traditional teacher preparation and licensure programs, including cadet and apprentice programs, alternative certification paths and acceptance of more uncertified individuals, and using financial incentives to attract more people into teaching.

Data

ACT data is from the eight southern states that require or pay for students to take the ACT.¹ The data include all students who enroll in a 2- or 4-year postsecondary institution who responded to the survey about their education and occupational interests from 2013 to 2022.² The data include responses to student surveys about planned college major and occupation, as well as student demographic information. For this project, we focused on the 525,600 Kentucky and Tennessee students who completed high school between 2013-2022, took the ACT test in 11th or 12th grade, enrolled in a 2-or 4-year postsecondary institution, and provided data on their college major and occupational plans.³

When students register for the ACT, they are asked several questions including: “What is your first choice of college major?” and “What is your first choice of occupation (vocation)?” Students are provided a list of 294 occupations to choose from, including “Undecided.” The list of occupations is organized under 74 broader occupations nested under 18 career categories. Students may select either a detailed occupation choice (e.g., “School Counselor”), or a broader career choice (e.g., “Teacher Education, General”). The list of college majors also serves as the list of occupations. In this report, we focus on results for education-specific majors/occupations, as well as a comparison group of the most popular major/occupation groups over time.

We also obtained access to newly hired teacher preparation and licensure data and school staffing data for both Tennessee and Kentucky. The Kentucky Center for Statistics provided the Kentucky data for the 2016-17 to 2021-22 school years. For Tennessee, data was provided via the Tennessee Education Research Alliance (TERA), which serves as a data warehouse for K-12 education data in Tennessee. These data cover the 2016-17 to 2022-23 school years. In Tennessee, the administrative data also includes high school course-taking and student demographic data in Tennessee, which we used to track enrollment in “Teaching as a Profession” courses. Public reports from Kentucky allow us to look at statewide trends in enrollment in the high school Teaching and Learning career pathway. Additionally, we use briefs released about the 2023 Tennessee Educator Survey (TES), which is administered by the Tennessee Department of Education (TDOE) and TERA, to identify when new teachers first became interested in teaching.

¹ ACT student survey responses are available for the following states: Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, South Carolina, and Tennessee.

² Years of data availability vary by state. The states featured in this brief, Kentucky and Tennessee, report ACT data for the entire sample.

³ The analytic sample is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. A table comparing sample student demographics to all ACT-tested students in Kentucky and Tennessee is in the appendix.

Context

In the 2021-22 school year, the Kentucky Department of Education served approximately 630,000 students in over 1,400 schools across 171 school districts. A majority of school districts are rural. Across the state, roughly 73.5% of students identify as White, 11% identify as Black or African American, 8.5% identify as Hispanic or Latino, and 7% identify as another ethnic or racial group. Sixty percent of students are categorized as economically disadvantaged. Roughly 43,500 full-time teachers were employed, 77.5% female and 95.2% identified as white. The average student-teacher ratio was 15 students to 1 teacher. The average teacher had 11.8 years of experience with 22.7% of teachers having three years of experience or less. Average teacher retention was 80%.⁴

Kentucky engages in a range of partnerships and programs to address significant teacher shortages and expand teacher workforce diversity in the state. Kentucky's [Grow Your Own](#) programs focus on the early recruitment of future teachers, featuring a comprehensive school program employing the [Teaching and Learning](#) career pathway and [Educators Rising](#) to give high school students a solid foundation of career preparation. Educator tuition assistance opportunities provide financial aid to recruit qualified Kentucky residents pursuing teacher certification in Kentucky.

In the 2021-22 school year, the Tennessee Department of Education served approximately 970,000 students in over 1,800 schools across 147 school districts. A majority of school districts are rural. Across the state, roughly 60% of students identify as White, 24% identify as Black or African American, 13% identify as Hispanic or Latino, and 3% identify as Asian. Thirty percent of students are categorized as economically disadvantaged. Roughly 68,000 full-time teachers were employed, of which 84.9% identified as white. The average student-teacher ratio was 14 students to 1 teacher. Nearly 14% of teachers had three years of experience or less. Average teacher retention was 92%.⁵

Tennessee's [Best For All Strategic Plan](#) includes a focus on educators, which has included TDOE's support and investment in [Grow Your Own](#) pathways and in [Read360 trainings](#). Tennessee's Grow Your Own work includes partnerships between educator preparation

⁴ Statistics for Kentucky come from the KY State Report Card. Measures of teacher turnover are included in the annual report. The turnover metric is used to determine the percentage of (1) prior year teachers that do not return to teaching or (2) new teachers that leave before the end of the school year. For the year of reporting, this includes teachers that left the school regardless of whether they were re-employed in another district, moved within their district, left the Kentucky Public School system, or retired. Teachers promoted to administrators are also considered as turnover.

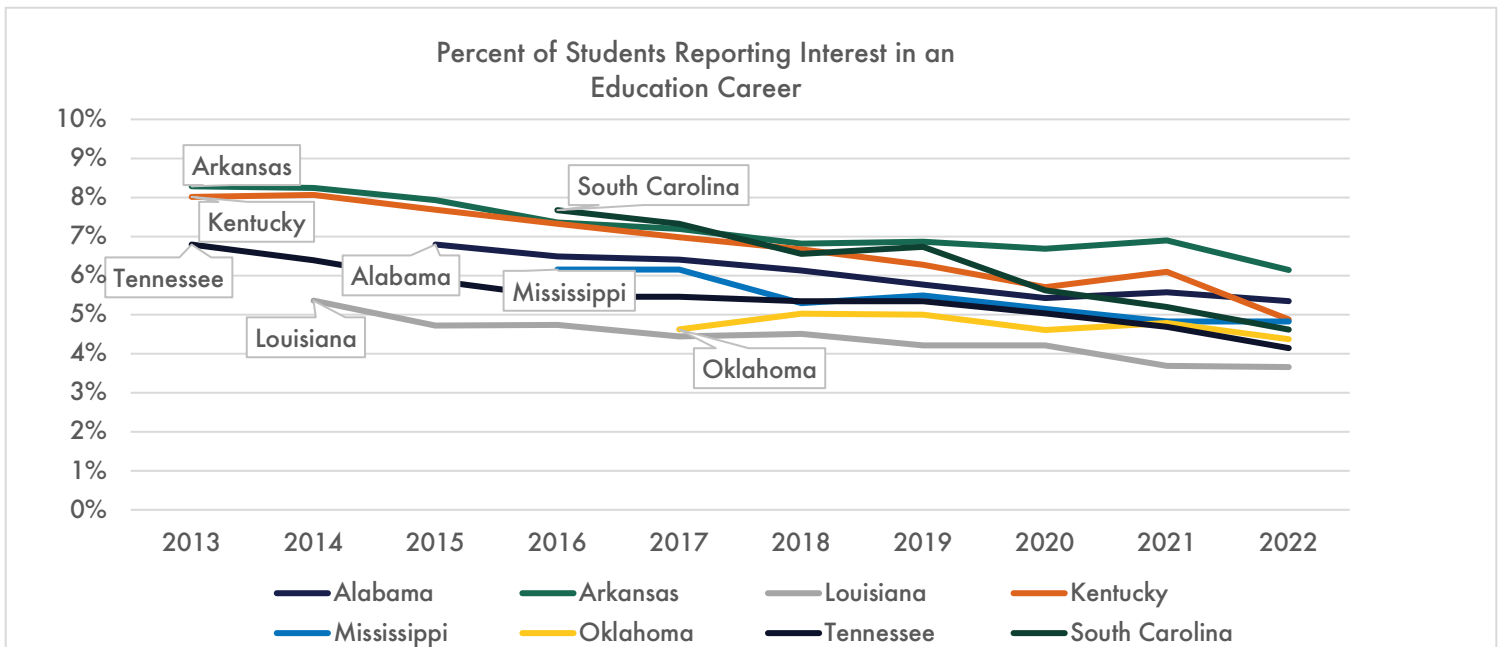
⁵ Statistics for Tennessee come from the TN State Report Card. Measures of teacher retention are included in the annual report. Teacher retention reflects the percentage of teachers across the state who were staffed in a Tennessee school or district during the 2020-21 school year and continued to teach in a Tennessee school or district for the 2021-22 school year.

providers (EPPs), local education agencies (LEAs), and the Tennessee Department of Workforce Development to provide pathways to the teaching profession and pipelines of qualified teachers. Tennessee has 44 education preparation providers.

Key Finding 1: Interest in an education career among high school students declined steadily since 2013.

Across eight southern states, interest in pursuing a career in education has declined over the past decade among high school students who enroll in a postsecondary institution. The downward trend is similarly steep for interest in studying education in college among high school students. Over a 10-year period, interest in education occupations among high school juniors and seniors in Kentucky declined from 8% to 5%. In Tennessee, the small proportion of high school students interested in studying to become an educator drops from 7% to 4%. Given that interest is small to start, declining interest in teaching among high school students is concerning.

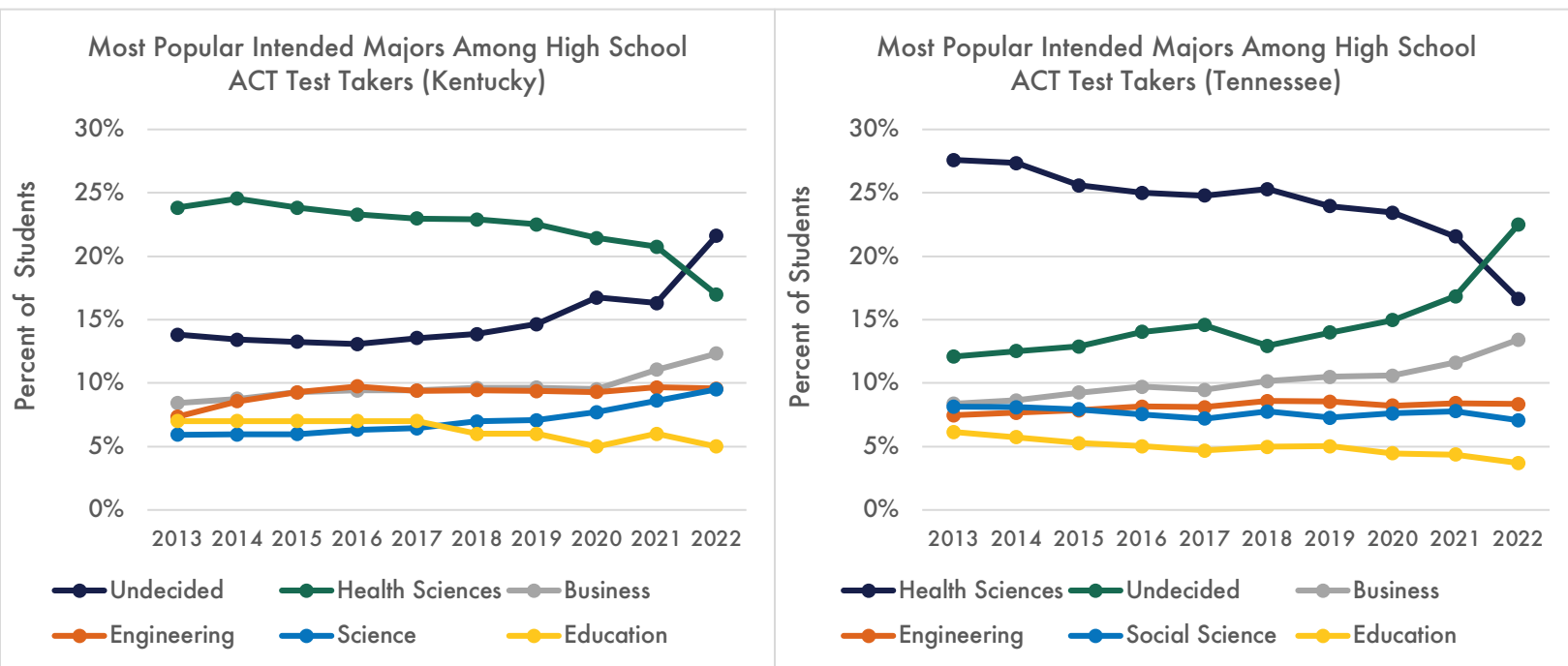
Figure 1. Interest in pursuing an education career declined across eight southern states.



Note. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.

High school students increasingly indicate uncertainty about their future. Figure 2 shows average trends of intended college majors among Kentucky high school juniors and seniors. A growing proportion in both Tennessee and Kentucky are “undecided” about both their college major plans and future occupations. Starting in 2021, students were most often selected “undecided” as their intended college major, surpassing interest in studying the health sciences. Students who are more certain about their intended college majors are signaling an interest in majors in the health sciences, business, engineering, and science. On average, education-related majors are the sixth most popular intended major.

Figure 2. High school ACT test takers are increasingly undecided about their intended college majors.



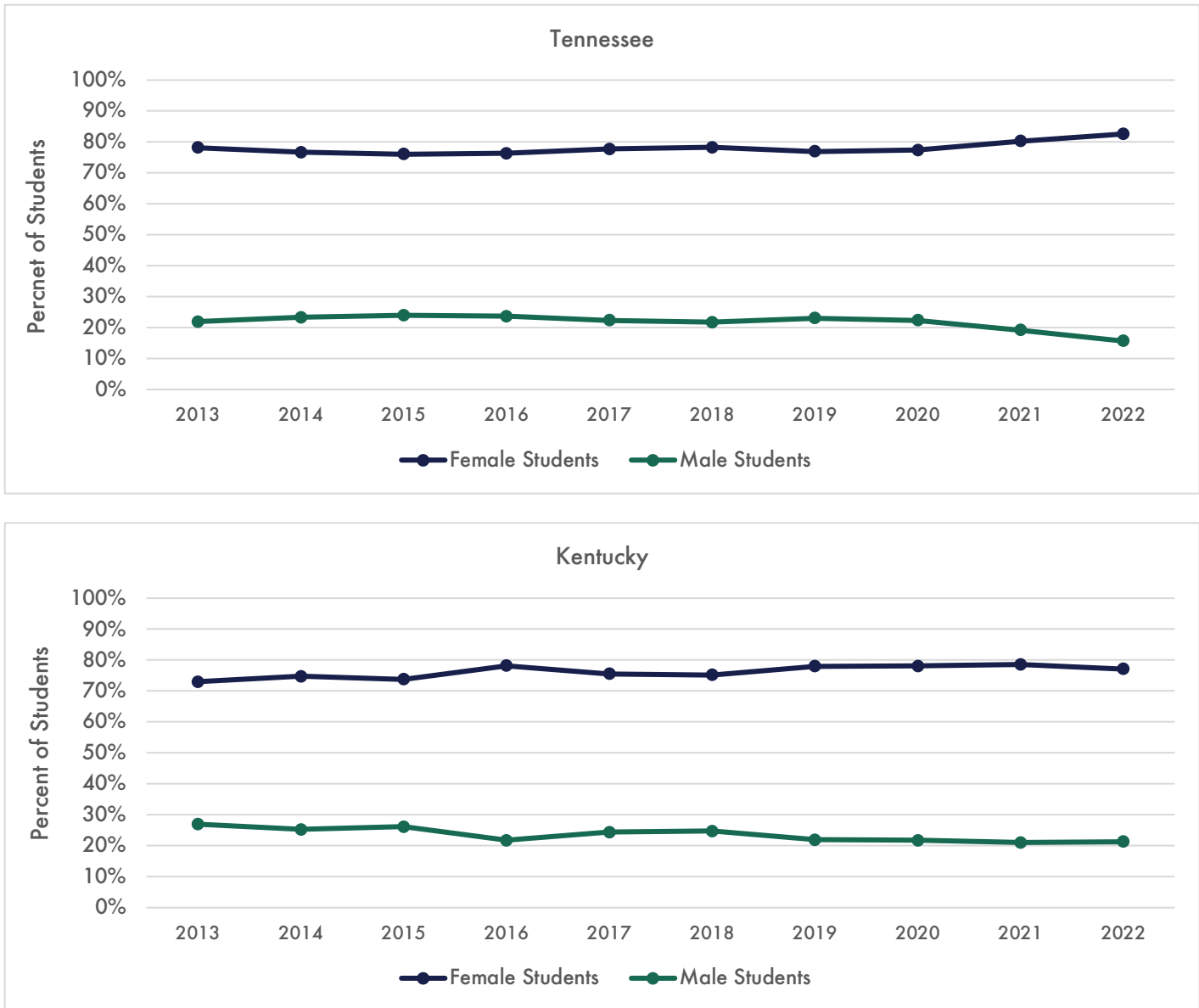
Note. The graph above reflects data from Kentucky high school students who enrolled in college. There are 294 major/occupation choices in 18 different major/occupation groups that students may select. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.

Key Finding 2: In both Kentucky and Tennessee, students who plan to major in education and express interest in an education career are predominantly White and female and have lower average ACT scores than other students who enter postsecondary.

Though high school students' interest in an education career has declined, the racial and gender backgrounds of students indicating interest in the profession has not changed over time. Between 2013 and 2022, students who plan to major in education and express interest in an education career in both Tennessee and Kentucky have remained predominantly White. Eighty percent of intended education majors in Tennessee and 86% in Kentucky identify as White. In 2022, students intending to major in education were 83% female in Tennessee and 77% female in Kentucky. This trend has not changed significantly in the past decade, however, intended education majors have proportionally become slightly more female.

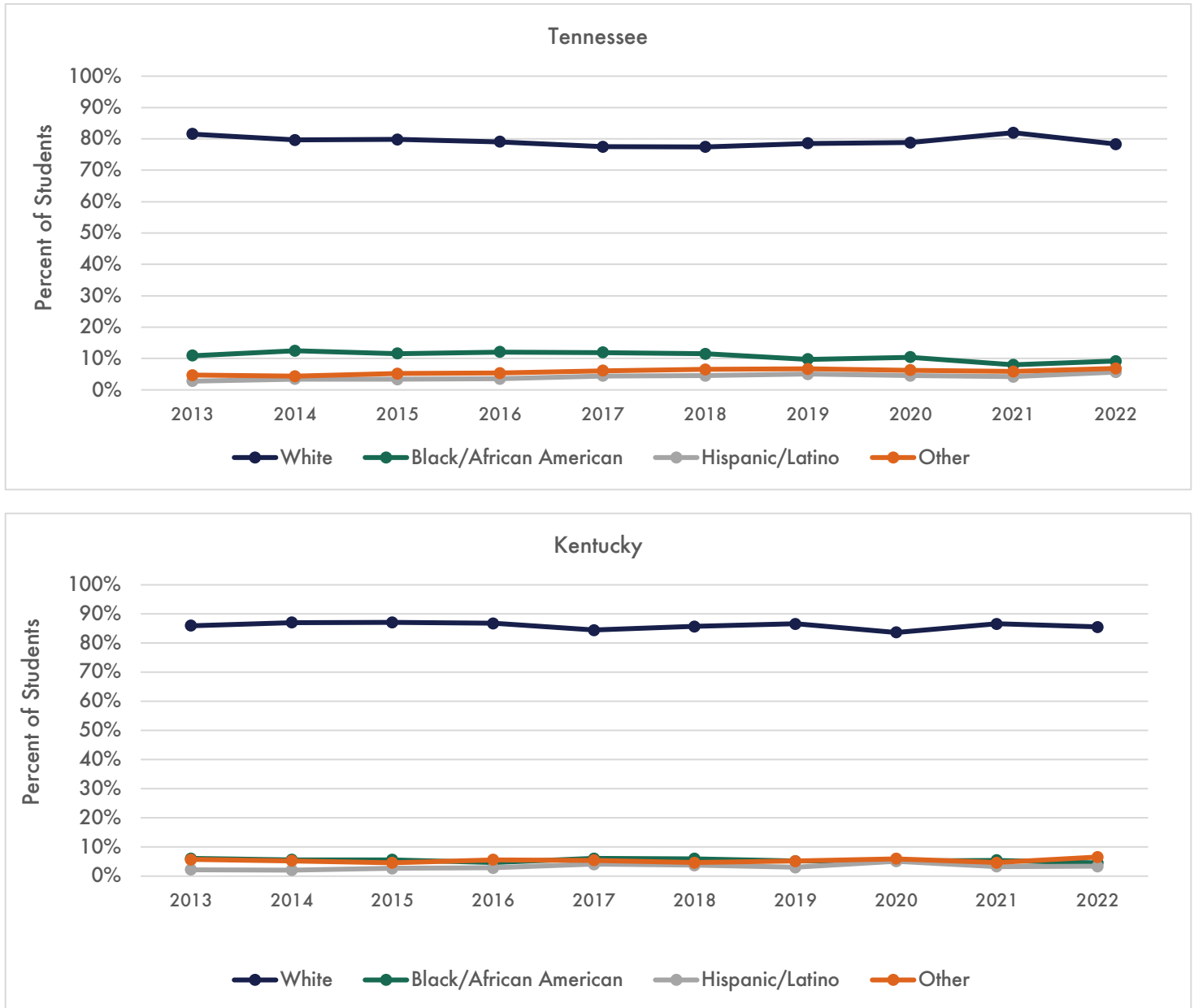
These proportions mirror the current racial and ethnic composition of teachers across both states (which are both majority White and female), but students signaling interest in teaching as a profession are not racially representative of the current student population in Tennessee and Kentucky. Both states have had increasing diversity amongst their student population. In Kentucky and Tennessee, students of color represent 25% and 40% respectively. This data is not promising for ongoing calls and efforts to diversify the teaching workforce. Figures 3 and 4 illustrate the responses for education major intent by student demographics, but trends were very similar for the survey items regarding education career intent.

Figure 3. Female high school ACT test takers are much more likely to indicate that they plan to major in education than male students in both states.



Note. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.

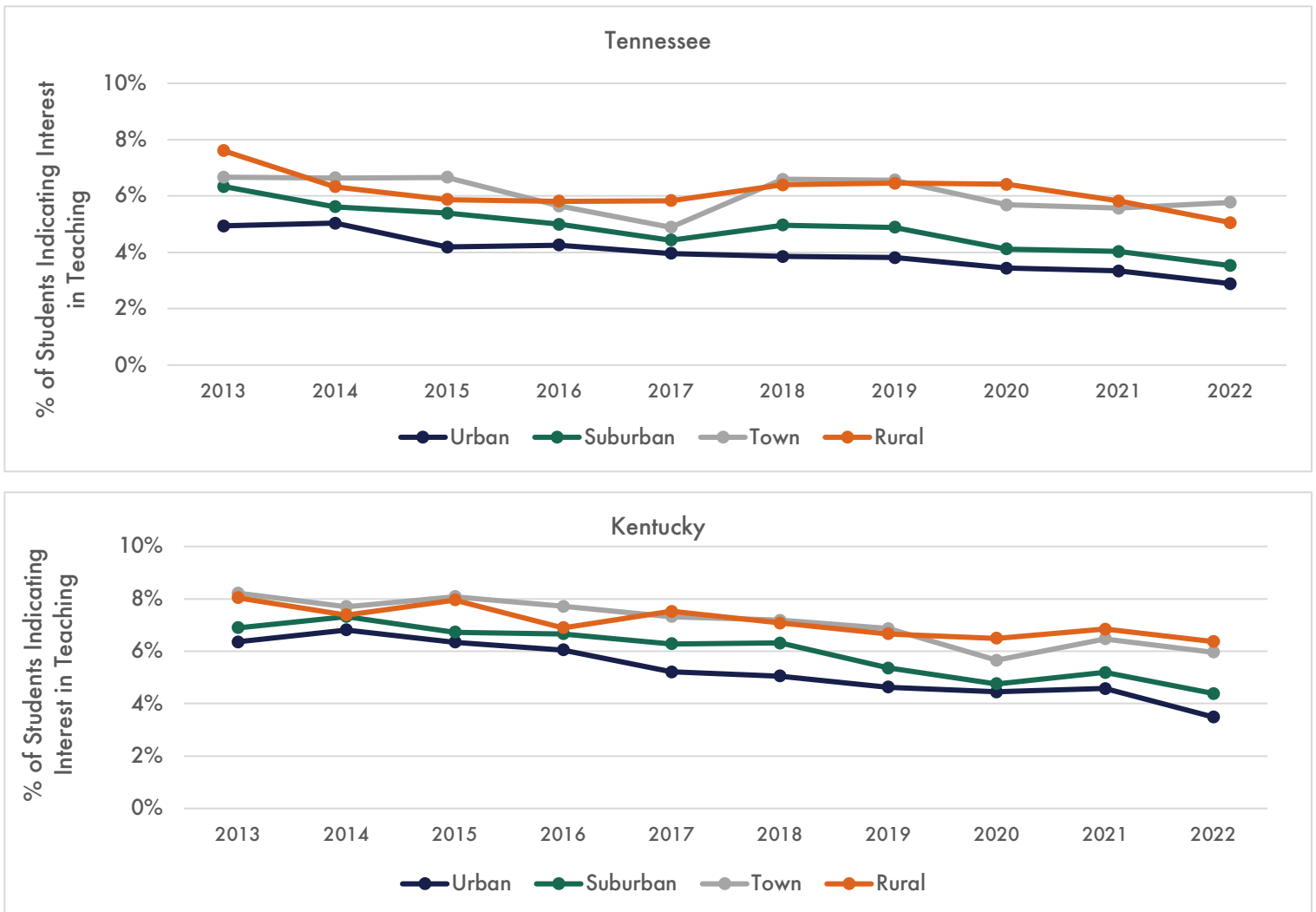
Figure 4. White high school ACT test takers are much more likely to indicate that they plan to major in education than students of color in both states.



Note. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses. Other includes Asian, American Indian / Alaska Native, Native Hawaiian / Pacific Islander, and two or more races.

Interest in majoring in and working in education declined among students across all locale types. Between 2013 and 2022, interest in majoring in education for urban high school students in Tennessee declined from 5% to 3%, and from 8% to 5% for rural high school students. Interest in education similarly declined for students in Kentucky. Between 2013 and 2022, interest among urban high school students in Kentucky declined from 6% to 3%, and from 8% to 6% for rural high school students.

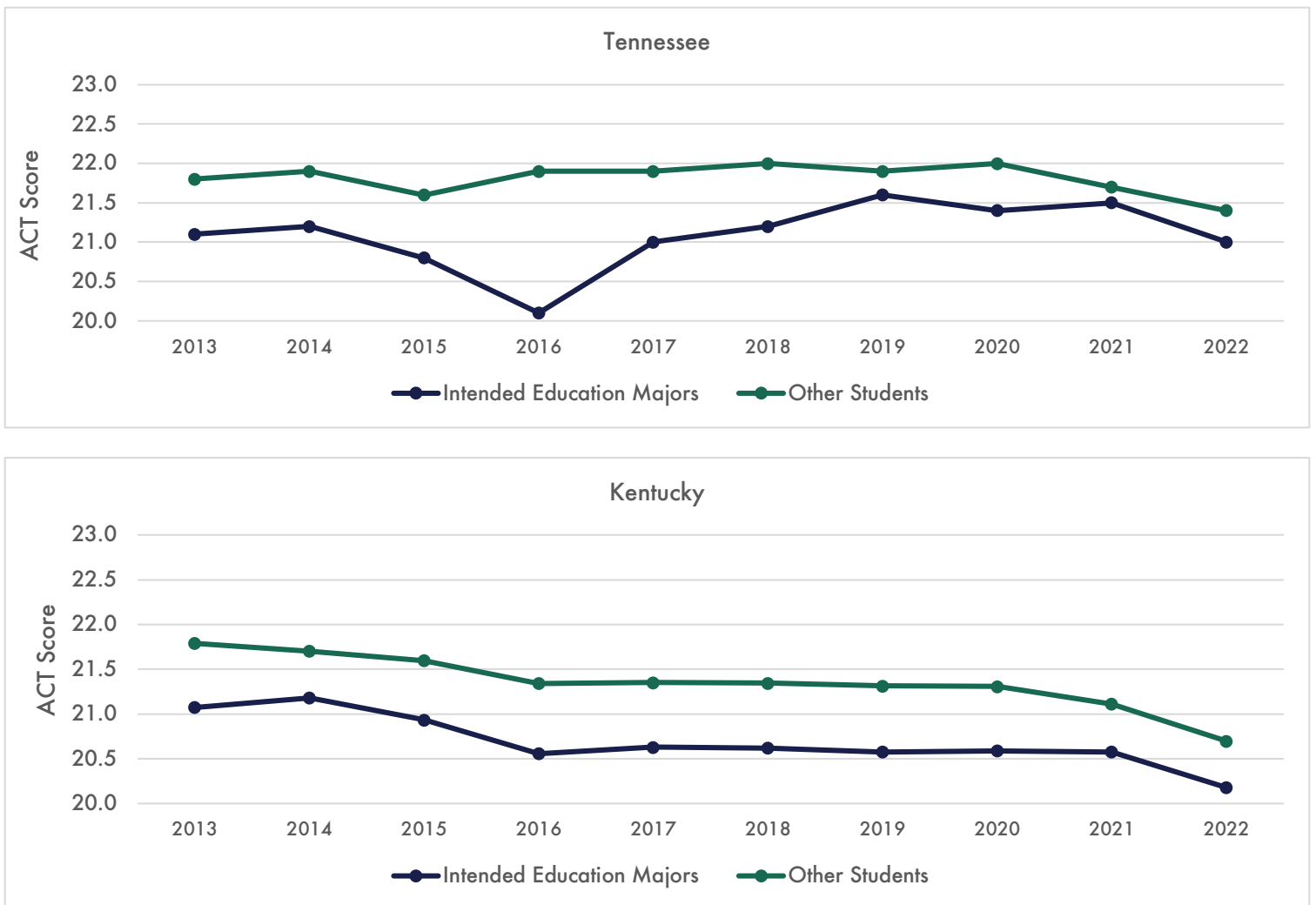
Figure 5. Interest in teaching declined among urban and rural ACT test takers, yet rural students are more likely to be interested in teaching.



Note. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.

The average ACT scores of high school students intending to major in education in both states are slightly lower compared to students selecting other major and career pathways. This trend persists over time. Across all years, students intending to major in education had an average ACT composite score of 21.2 in Tennessee and 21.5 in Kentucky. For comparison, “undecided” majors had average ACT scores of 22.7 in Tennessee and 22.4 in Kentucky.

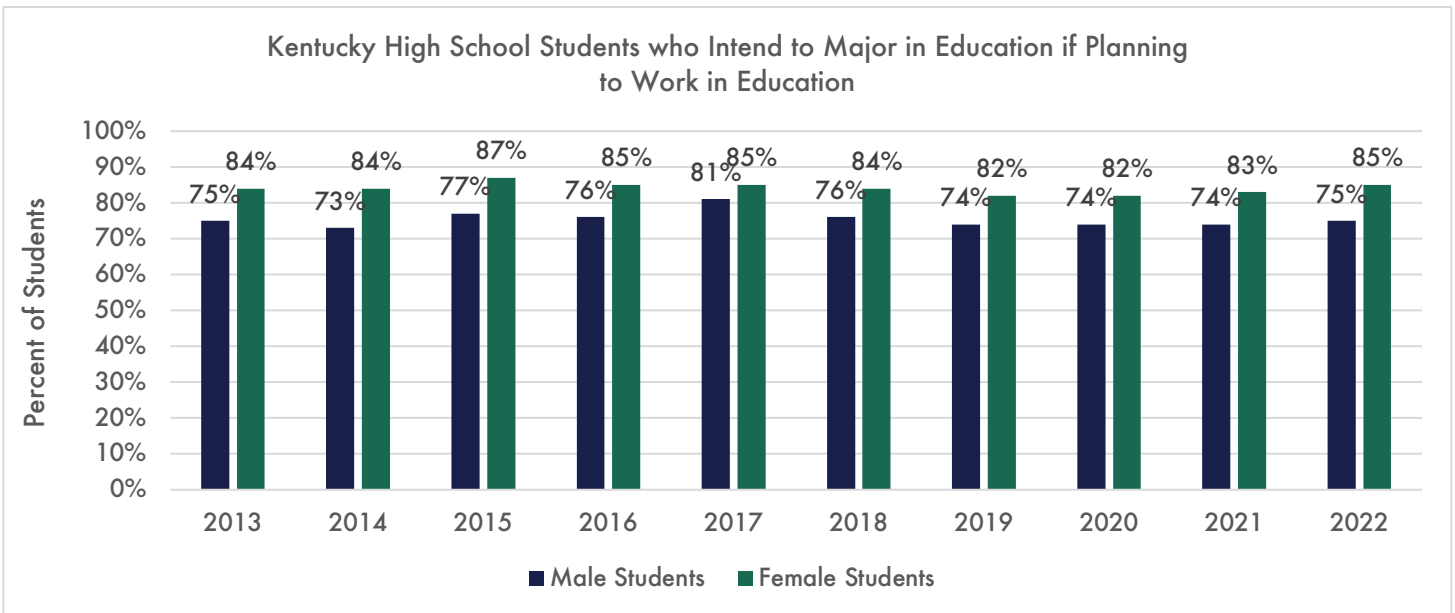
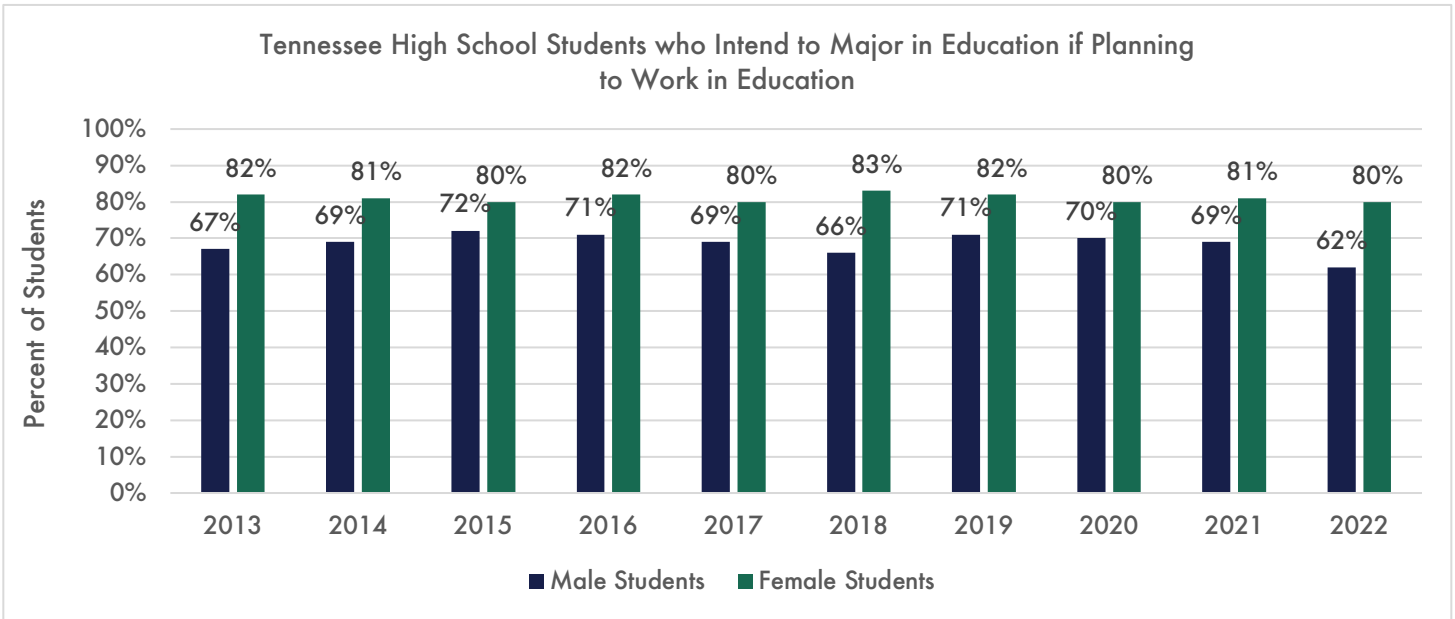
Figure 6. Students intending to major in education have lower ACT scores than their peers who enroll in postsecondary.



Note. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.

While we see a high correlation between interest in an education career and intent to major in education, not all high school students who plan to pursue a career in education plan to study education in college. For example, students may plan to major in a content area like math or science and then teach at the secondary school level. Figure 7 shows the proportion of students in Tennessee and Kentucky who plan to major in education if they indicate on the survey that they also intend to work in education. A greater share of male students intends to major in something other than education, even if they intend to work in education. These students most commonly indicate that they intend to major in the arts or business. This slight mismatch between intended college major and intended occupation suggests that analyses focused solely on students enrolling in, or planning to enroll in, education programs or majors may miss an important population of potential teachers who choose other college majors, particularly for male students.

Figure 7. Male high school ACT test takers in Kentucky and Tennessee are more likely to indicate majoring outside of education while interested in an education career.



Note. The graphs above reflect pooled data from Kentucky and Tennessee high school students.

Key Finding 3: Enrollment in high school “Teaching as a Profession” courses in Tennessee is increasing.

The college career and technical education (CTE) cluster prepares high school students for postsecondary credentials and careers in a myriad of education-related occupations. Originally designed as a 3-course sequence, “Teaching as a Profession” (TAP) courses⁶ in Tennessee and “Teaching and Learning” courses in Kentucky were created for students interested in becoming an educator. The courses, offered by districts across the states, prepare learners for postsecondary credentials and careers as educators. In Tennessee, students have the opportunity to participate in an internship placement to gain hands-on experience working as a future educator. Any teacher who has completed an educator preparation program and has a current practitioner or professional educator license in secondary education covering grade spans 6-12 may teach these courses.

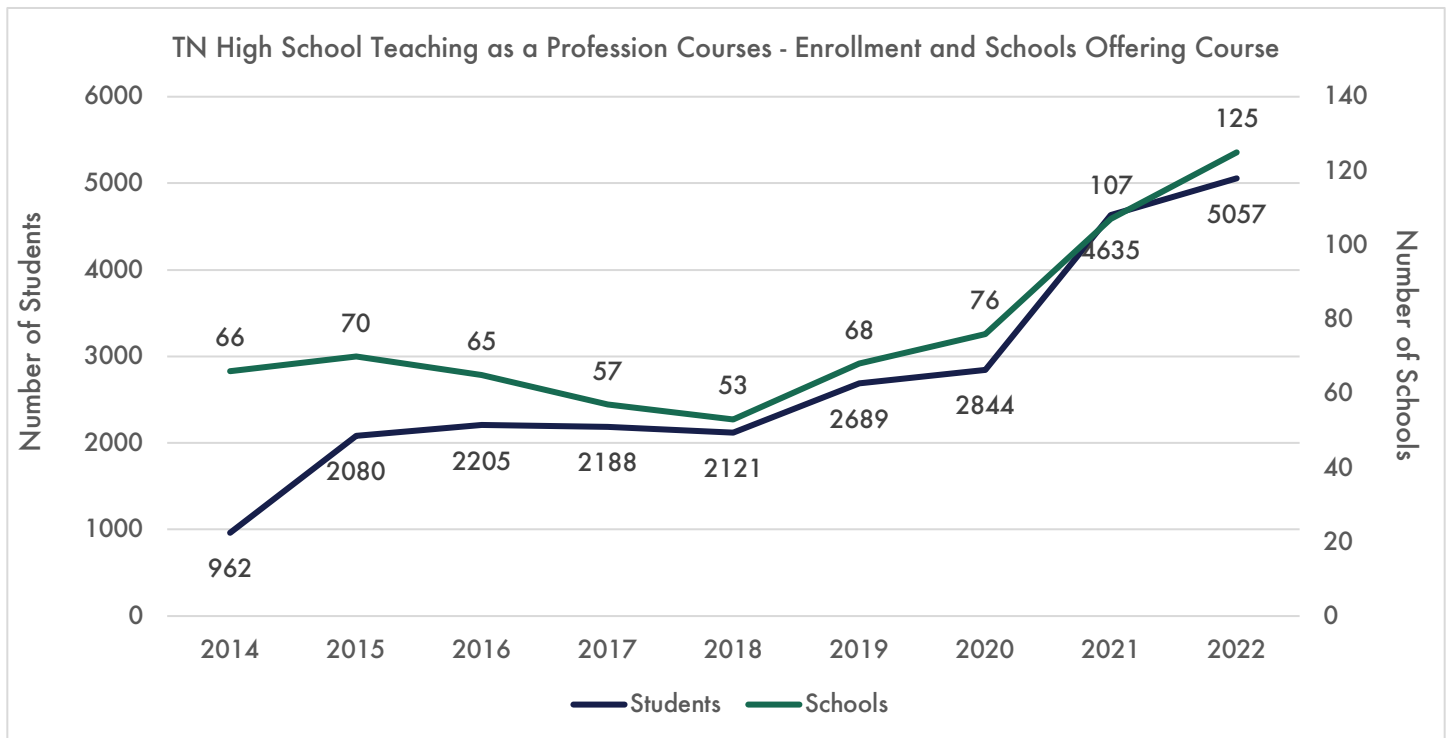
Figure 8 shows trends for high school student enrollment in Tennessee’s TAP courses, as well as the number of schools across the state offering these courses. Since 2018, both course offerings and enrollment have been on the rise. TAP courses have grown in popularity among both male and female high school students. In the 2021-22 school year, 5% of female students and 2% of male students across the state were enrolled in at least one of the TAP courses. Enrollees were mostly female (83%, on average, between 2010-2022), however, male student enrollment in the course has grown in recent years. On average, 73% of students who take a TAP course only take one course in high school. In schools that offer TAP courses, about 5% of students have enrolled over time.

Among Tennessee students in schools that offer TAP courses, average ACT composite scores were lower for students who enrolled in at least one TAP course (19) compared with students in the same school who did not enroll in any TAP courses (19.5).⁷

⁶ The courses included in the “Teaching as a Profession” sequence have changed over time. For a current list of course requirements, see: <https://www.tn.gov/education/educators/career-and-technical-education/career-clusters/cte-cluster-education-training.html>

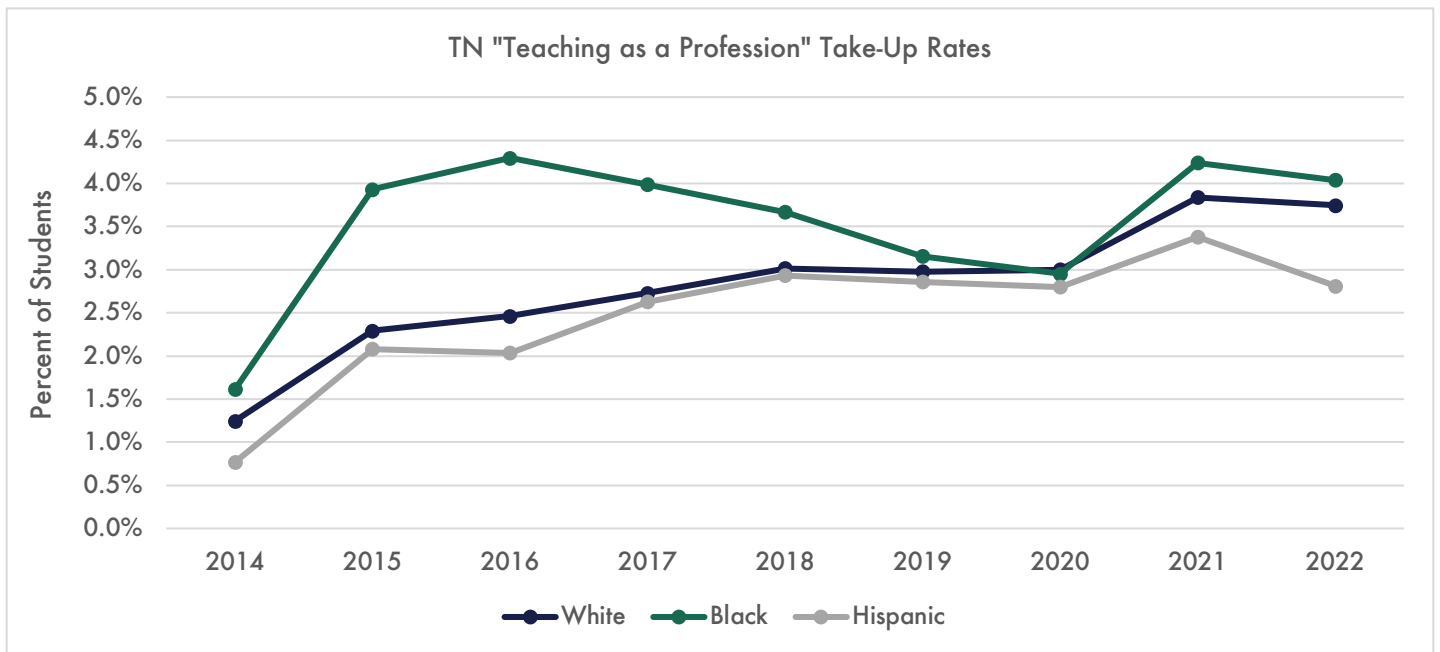
⁷ ACT scores for Tennessee students are lower than average scores reported from the ACT data due to the ACT sample reported. The ACT survey sample is limited to students who enroll in a 2- or 4-year institution. Tennessee student data reports scores for the 2016-17 to 2019-2020 school years for all test takers, regardless of future college enrollment.

Figure 8. Access to “Teaching as a Profession” courses in Tennessee expanded and student enrollment increased.



While a majority of students enrolled in TAP courses are white (74%, on average, between 2010-2022), the group of students enrolling in TAP courses has diversified slightly over time. Looking across student racial and ethnic groups, enrollment rates have increased for all students, with Black students seeing the highest enrollment rate increases compared to White and Hispanic students. In the 2021-22 school year, 4.0% of all Black students, 3.7% of White students, and 2.8% of Hispanic students across the state were enrolled in a TAP course. As the state continues to expand course offerings and invest in pre-apprenticeship models, participation in these courses is likely to grow.

Figure 9. Enrollment rates in "Teaching as a Profession" courses among students across racial and ethnic groups increased over time in Tennessee.



Teaching and Learning courses in Kentucky experienced a similar growth in enrollment. Kentucky first began offering the courses in 2018, with enrollment more than doubling in three years from about 1,000 students to over 2,200 students in 2021. In the 2020-21 school year, 82% of enrollees were female and 75% identified as White.

Key Finding 4: Across both states, participation in some alternative or non-traditional preparation pathways and hire rates of alternatively prepared teachers have increased.

Teacher preparation and certification is generally grouped in two ways – a traditional preparation pathway of a bachelor’s and/or master’s degree in education, or an alternative pathway consisting of different training options for prospective teachers who do not hold a degree in education. Nationwide, the preparation routes for incoming teachers shifted between 2012 and 2020. National data shows a 28% decline in traditionally prepared graduates, a 32% increase in alternative programs hosted by institutions of higher education (IHE-based) and a 14.6% increase in non-IHE-based alternative programs (U.S. Department of Education, 2023).

As shown in Figure 12, in the 16-state southern region from 2012 to 2022, completion rates of traditionally prepared candidates fell by 33% while completion rates for alternative IHE-based and non-IHE based increased by 3% and 4% respectively. Across both Kentucky and Tennessee, participation declined in traditional and non-IHE-based alternative pathways into teaching 2012-13 to 2021-22. In Tennessee, alternative IHE-based completers increased by 4%. In Kentucky, alternative IHE-based completers increased by a whopping 143%

Figure 10. Teacher candidates are increasingly prepared through alternative preparation routes.

	Kentucky			Tennessee			16-State SREB Region		
	2012-13	2021-22	% Change	2012-13	2021-22	% Change	2012-13	2021-22	% Change
Total Completions	3,222	2,702	-16	4,453	2,680	-40	70,297	54,199	-23
Traditional	2,828	1,796	-36	3,696	1,998	-46	51,494	34,687	-33
Alternative, IHE-based	367	892	143	553	576	4	7,361	7,587	3
Alternative, non-IHE-based	27	14	-48	204	106	-48	11,442	11,885	4

However, the number of in-state program graduates is not necessarily reflective of the number of newly hired teachers.⁸ Newly hired teachers in both Tennessee and Kentucky enter the profession through both traditional and alternative preparation routes, including teachers who migrate from other states.⁹

Tennessee's non-traditional preparation routes include alternative preparation programs, district residencies, and "job-embedded" routes for individuals interested in becoming a teacher who already hold a bachelor's degree or have relevant prior work experience.¹⁰ Between 2017 and 2022, the proportion of newly hired teachers who completed a non-traditional preparation program rose from 12% to 23%.¹¹ The composition of newly hired teachers in Kentucky changed even more. Between 2017 and 2022, the percentage of incoming teachers who completed an alternative preparation route grew from 20% to 34%.

⁸ Newly hired teachers are categorized as those with no prior years of experience teaching in public education in the state. These numbers include educators that could have retired and returned to the profession, educators who transitioned into public education from the private sector, and educators with prior teaching experience out-of-state.

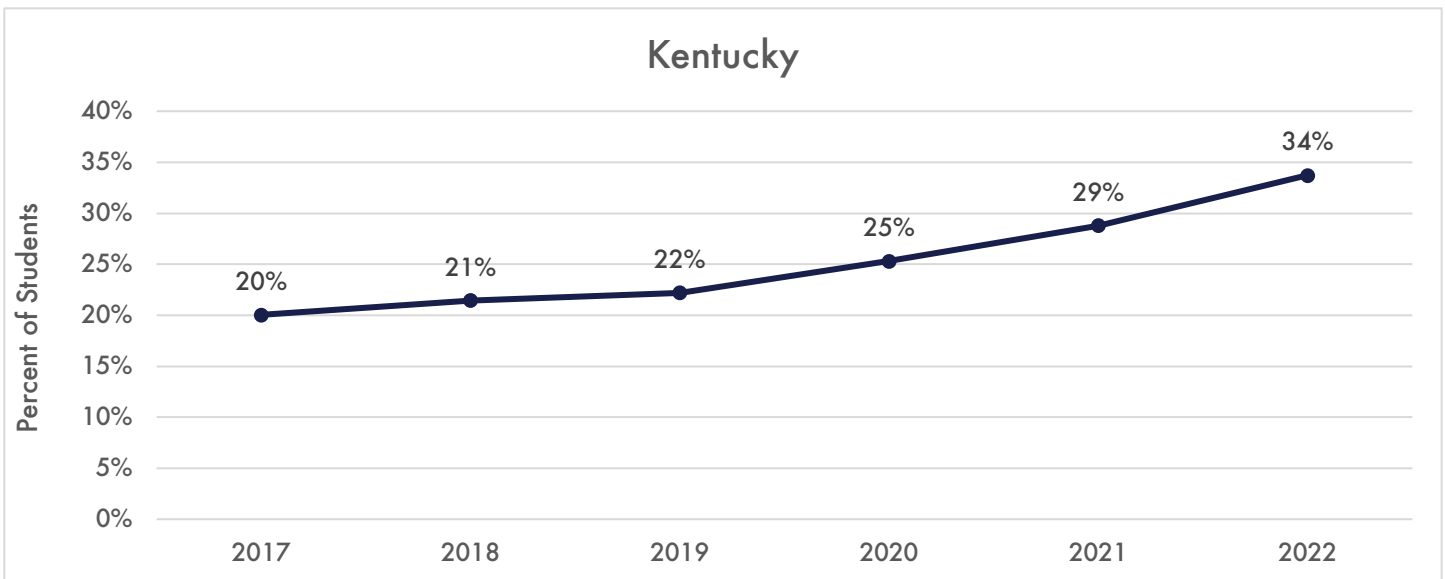
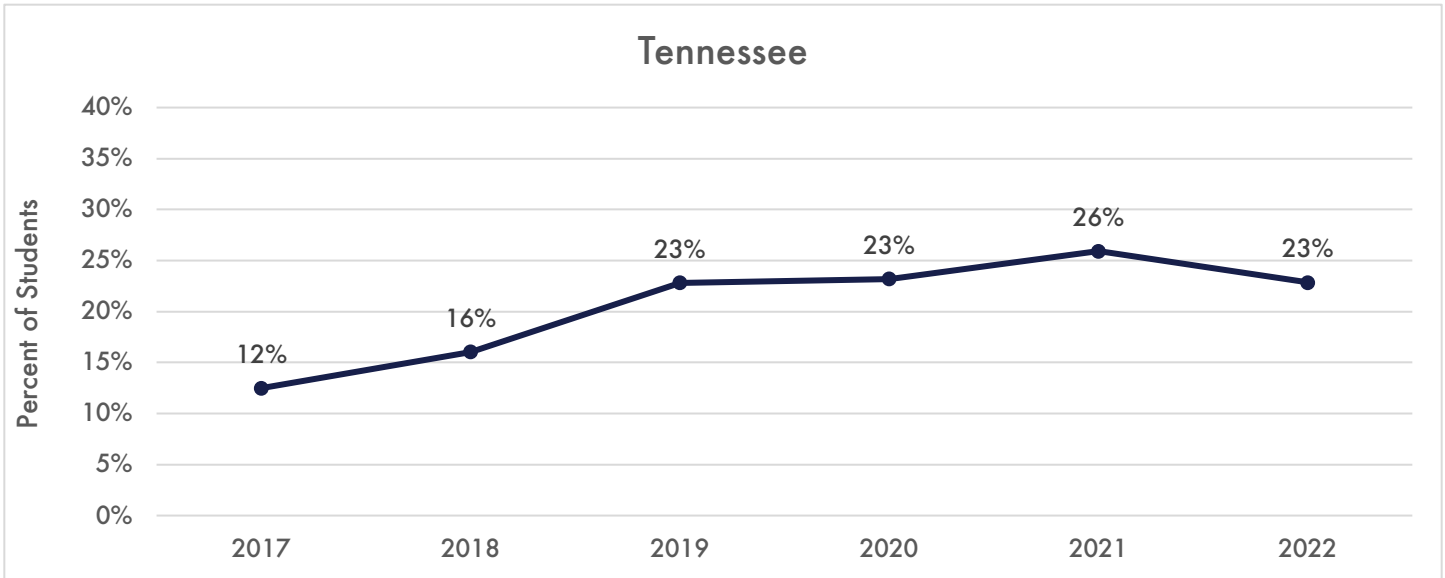
⁹ Alternative routes to teacher preparation are dependent on state context. For additional information on Kentucky's alternative routes to certification, please see:

<https://www.education.ky.gov/teachers/NxGenProf/Pages/Certification.aspx>

¹⁰ There can also be job-embedded teachers who do not have a BA in occupational CTE areas; these individuals must have experience and certifications specific to their field but are not necessarily required to have a BA. please see: <https://publications.tnsosfiles.com/rules/0520/0520-02/0520-02-03.20240219.pdf>

¹¹ We observe preparation program data for 55% of all newly hired teachers in Tennessee between 2017 and 2022. Tennessee teacher preparation program details are only available for in-state completers. As a result, preparation data for 45% of newly hired teachers is unavailable.

Figure 11. The proportion of newly hired teachers in Kentucky and Tennessee entering teaching through alternative pathways has grown since 2017.



Note. Kentucky's alternative program completers is calculated from the state's eight alternative routes to certification. Tennessee's alternative program completers is calculated from counts of the the following programs/routes: Teacher For America, The New Teacher Project, district residency programs, programs identified as alternative, and students who completed job-embedded training. Kentucky data for this graph came from the Kentucky Longitudinal Data System.

Across both states, a greater share of newly hired male teachers enter teaching through non-traditional preparation pathways. While the gap between newly hired male and female teachers entering through alternative routes has remained consistent over time in Kentucky, the gap has grown in Tennessee. In Tennessee, newly hired male teachers make up a growing share of alternatively prepared entrants.

In Kentucky, teachers of color are more likely to enter the profession through alternative pathways. Alternatively prepared teachers also trend older, as many are switching from another career. Newly hired teachers in Tennessee follow a similar pattern. In 2022, over half of newly hired teacher of color in Tennessee were enrolled-in or had completed a non-traditional program.

Discussion

While interest in pursuing a career in education among high school students has declined steadily across many states in the south since 2013, the number of students taking a Teaching as a Profession (TAP) course in Tennessee high schools and a Teaching and Learning course in Kentucky high schools has increased substantially over this time. While these findings appear contradictory, it is possible that interest among high school students in becoming teachers might have declined even more over this period had these courses not been available. It is also possible that by taking an introductory teaching course, some high school students may decide that the positive aspects of becoming a teacher, such as a desire to work with young people, may outweigh the negatives, such as low salaries, student disciplinary challenges, or lack of flexibility in the workday. What high school students take away from these courses may also explain differences in the racial and ethnic trends of course enrollment in Tennessee (increases in the proportion of Black and Hispanic students) and the stable racial and ethnic trends in both interest in becoming a teacher and in earning a teacher credential.

Since we see that many early-career teachers formed their interest in teaching before entering high school, future research should explore whether taking introductory courses to teaching increases or decreases the likelihood that young people with an early interest in teaching go on to become teachers.

Data reported in a TERA brief from the 2023 Tennessee Educator Survey (Binsted, 2023) suggests that a sizeable number of early-career teachers decided on their career path after college — 17% after receiving a degree in a field other than education and 27% after working in another

occupational field. This suggests a continuing role for traditional post-baccalaureate credential programs and alternative pathways to address teacher shortages—even though the proportion of teachers entering through alternative routes has been declining in Tennessee and Kentucky. In addition, males and people of color are more interested in majoring in other majors before pursuing a career in education, so to continue to diversify the profession, we are more likely to do so through alternative credentialing.

However, new teachers are increasingly critical of their preparation programs preparing them for the job, so it is imperative that all teacher credentialing programs are rigorous and contain supportive on-the-job training.

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Appendix

Table 1. Comparing the Sample to the ACT-Tested Population

	ACT-tested High School Graduates, 2013-2022			
	TN Sample	All TN	KY Sample	All KY
Gender				
Male	0.43	0.44	0.43	0.44
Female	0.56	0.56	0.57	0.56
Race/Ethnicity				
Black/African American	0.16	0.15	0.07	0.07
Asian	0.03	0.02	0.02	0.02
Hispanic/Latino	0.05	0.06	0.04	0.04
Native American	0.00	0.00	0.00	0.00
Native Hawaiian/OPI	0.00	0.00	0.00	0.00
Two or more races	0.03	0.03	0.04	0.04
White	0.68	0.64	0.78	0.76
School Locale Type				
Rural	0.20	0.21	0.24	0.24
Town	0.14	0.15	0.26	0.26
Suburban	0.24	0.25	0.22	0.21
Urban	0.38	0.37	0.26	0.26
ACT Composite	22.20 (5.18)	21.80	22.39	22.12
N	300,581	407,760	224,479	260,611

Note. Standard deviation in parentheses. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses. In Tennessee, response rates to major and occupation questions of interest dropped from 95% in 2013 to 35% in 2022. In Kentucky, response rates dropped from 96% in 2013 to 51% in 2022.

Table 2. ACT Survey Interest in Education as a Major and Occupation Among Respondents

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Tennessee										
Education Majors	0.06 (0.24)	0.06 (0.23)	0.05 (0.22)	0.05 (0.22)	0.05 (0.21)	0.05 (0.22)	0.05 (0.22)	0.04 (0.21)	0.04 (0.20)	0.04 (0.19)
Education Occupation	0.07 (0.25)	0.06 (0.24)	0.06 (0.23)	0.05 (0.23)	0.05 (0.22)	0.05 (0.22)	0.05 (0.22)	0.05 (0.22)	0.05 (0.21)	0.04 (0.20)
N	36876	37506	38497	37909	39701	26682	24663	19451	25387	13909
Kentucky										
Education Majors	0.07 (0.26)	0.07 (0.26)	0.07 (0.26)	0.07 (0.25)	0.07 (0.25)	0.06 (0.24)	0.06 (0.23)	0.05 (0.22)	0.06 (0.23)	0.05 (0.22)
Education Occupation	0.08 (0.27)	0.08 (0.27)	0.08 (0.26)	0.07 (0.26)	0.07 (0.25)	0.07 (0.25)	0.06 (0.24)	0.06 (0.23)	0.06 (0.24)	0.05 (0.21)
N	26332	26723	24981	25055	25394	25575	23558	19562	15340	11959

Note. Standard deviation in parentheses. The sample for ACT survey analyses is limited to students who responded to the survey items of interest and enrolled in a 2- or 4-year institution. To address increasing nonresponse over time, we tested a variety of nonresponse weighting. Results suggest that nonresponse weighting did not change trends and thus we opted not to weighted responses.