



Right Services
 Right People
 Right Time
 Right Way

Teacher Recruitment and Retention

Teacher shortage conversations have been on-going for decades.ⁱ From research to media, widespread reports regarding teacher supply and demand have made teacher shortages a trending conversation nationally, and in Alabama. Common approaches used to address teacher shortages include financial awards, alternative teacher certifications, mentorships, and leadership programs.ⁱⁱ Several states and the federal government have efforts to recruit and retain teachers, notably through loan repayment programs. These programs vary by state but generally have program similarities such as graduated relief, qualifying areas of need, and forgiveness caps.ⁱⁱⁱ Alabama, like other states, has deployed multiple efforts to address the teacher shortage narrative, including its own student loan repayment program. **See AMSTEP.**

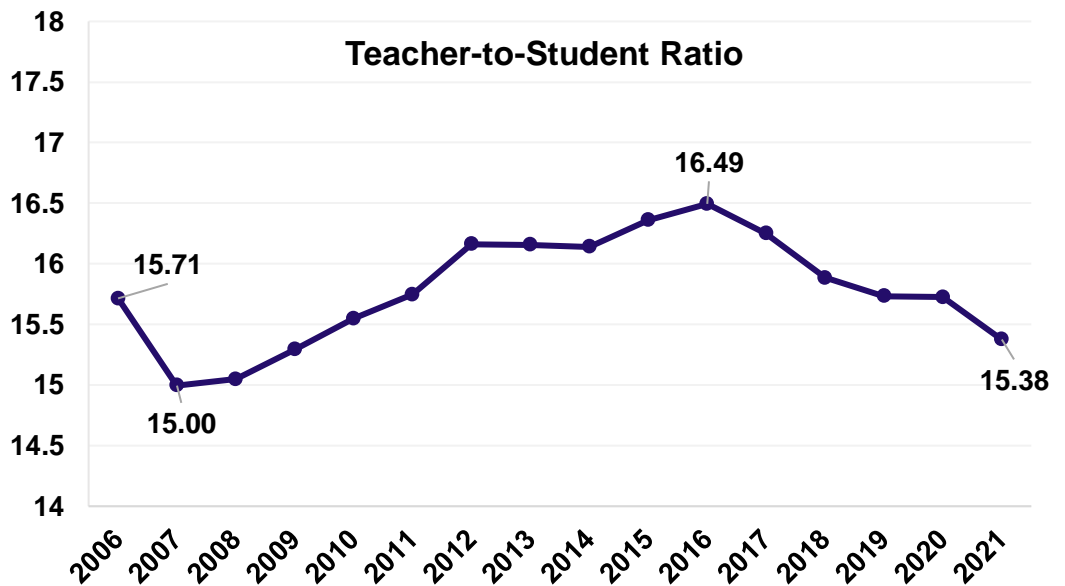
Nationally, research suggests that a widespread supply of teachers is not a perennial problem for most districts and schools. Instead, individual districts and schools may discover that there is a shortage of qualified teachers in varying subjects and grade levels.^{iv} This evaluation seeks to define the size and scope of the issue in Alabama while looking at the efforts that are underway or that could assist in addressing the issue. Since many efforts are just beginning, this multi-step evaluation will look heavily at the processes in place combined with what we know through current and historical data to present findings and recommendations.

At First Glance: Teachers & Students in Alabama¹

Teacher-to-Student Ratio

Though the last fifteen years have seen significant trends in both the total number of teachers and the total number of enrolled students, Alabama has a better teacher-to-student ratio in 2021 than in previous years. This declining trend suggests that a more thorough understanding of which areas (i.e., grade, subject, school/district) are experiencing teacher shortages compared to their student enrollments is needed.

An **overall drop in Teacher-to-Student Ratio of 1.12 over the last six years** has contributed to a **total decrease of 2.16% since 2006.**



¹ Source: All teacher data from ACHE’s Alabama Statewide Student Database and ALSDE Quick Facts and Report Cards

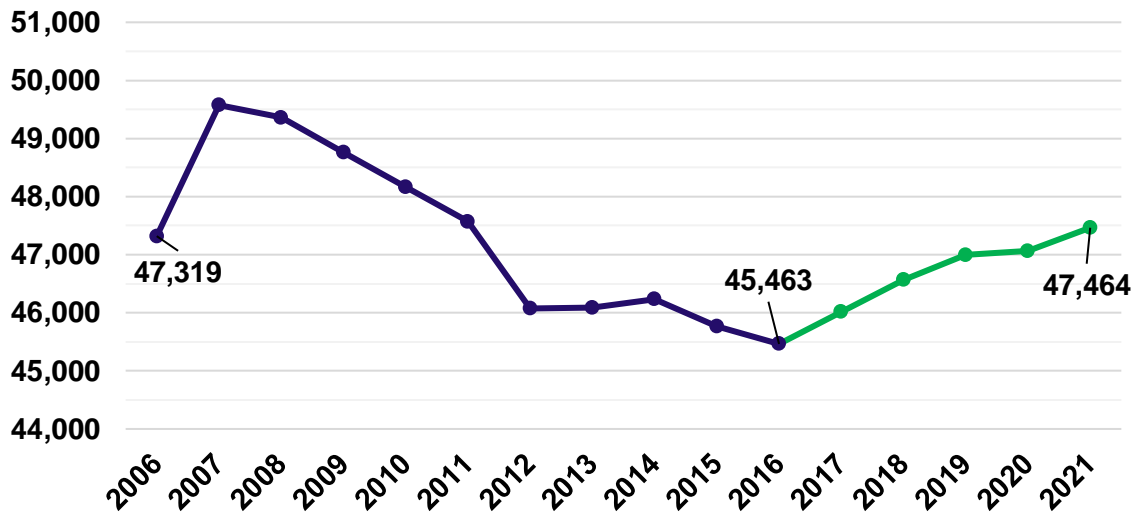
Factors Influencing Teacher-to-Student Ratio

Overall, the total number of teachers was roughly the same in 2021 (47,464) as it was 16 years ago (47,319). Over that same period of time, the total student enrollment has decreased by 13,818 students or 1.9%.

Teachers

Alabama's total number of teachers **declined by 1,856 FTEs between 2006 and 2016**. However, in the last five years, the total number of teachers **has increased by 2,001 FTEs**.

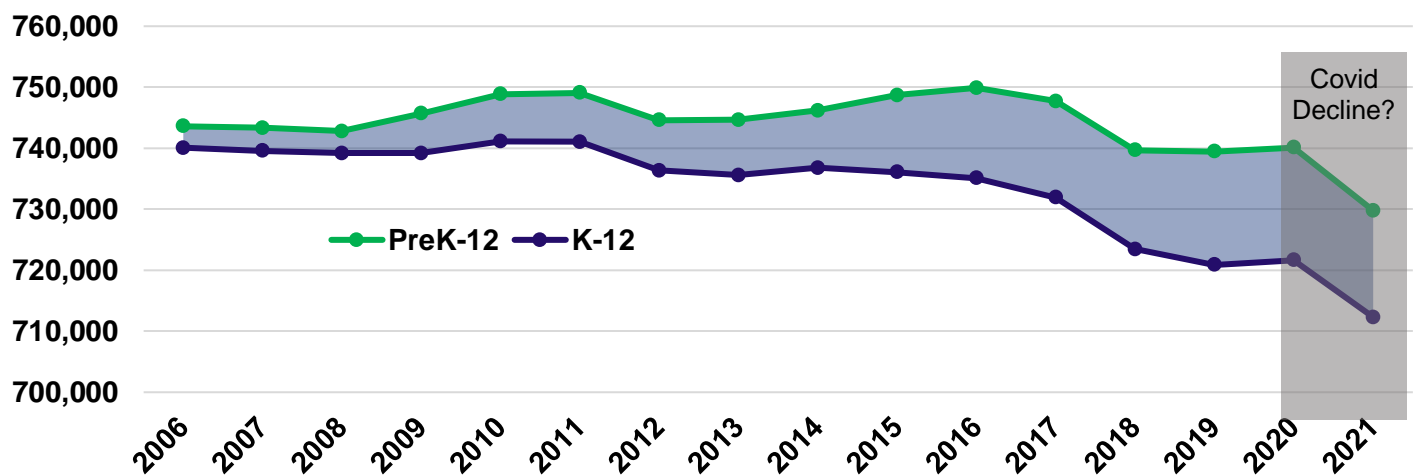
Total Number of Teachers (FTEs)



Students

Prior to the drop in total student enrollment during the Covid-19 2021 school year (-10,332), Alabama saw a **decline in Pre-K thru 12th grade enrollment of 3,486 students (-0.47%) from 2006 to 2020**. This is despite a 423% increase in Pre-Kindergarten enrollments in public schools. **This means that kindergarten thru 12th grade enrollment dropped 2.49% between 2006 and 2020**.

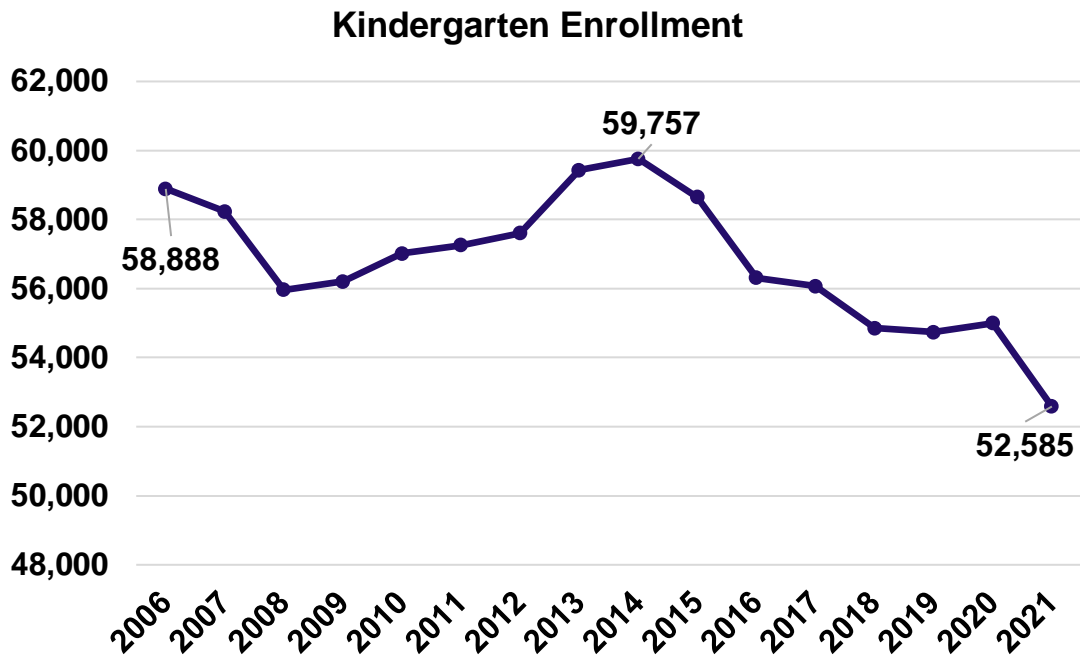
Total Student Enrollment



More about Student Enrollment

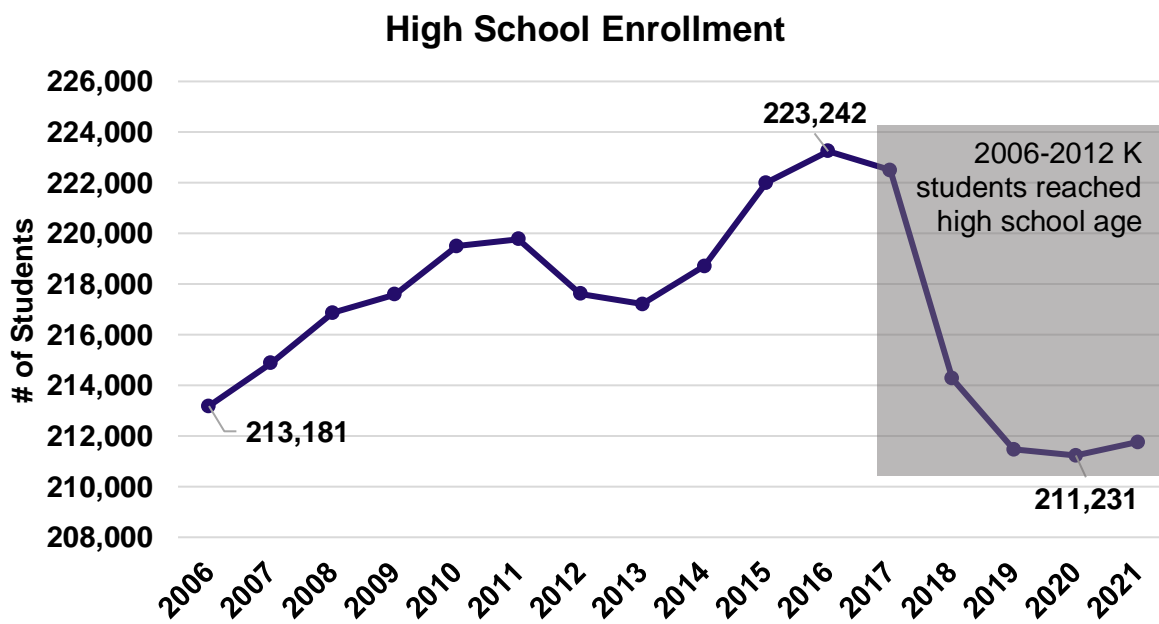
Decline in Kindergarten Enrollment

Since 2006, **Kindergarten averaged losing 420 students each year.**



Impacts of Kindergarten Enrollment on High School Enrollment

The decline in kindergarten enrollment has a strong correlation (90%) to the recent declines in total high school enrollments. While the correlation alone does not completely explain the overall declines in student population, it may serve as a strong predictor of future student enrollment trends.



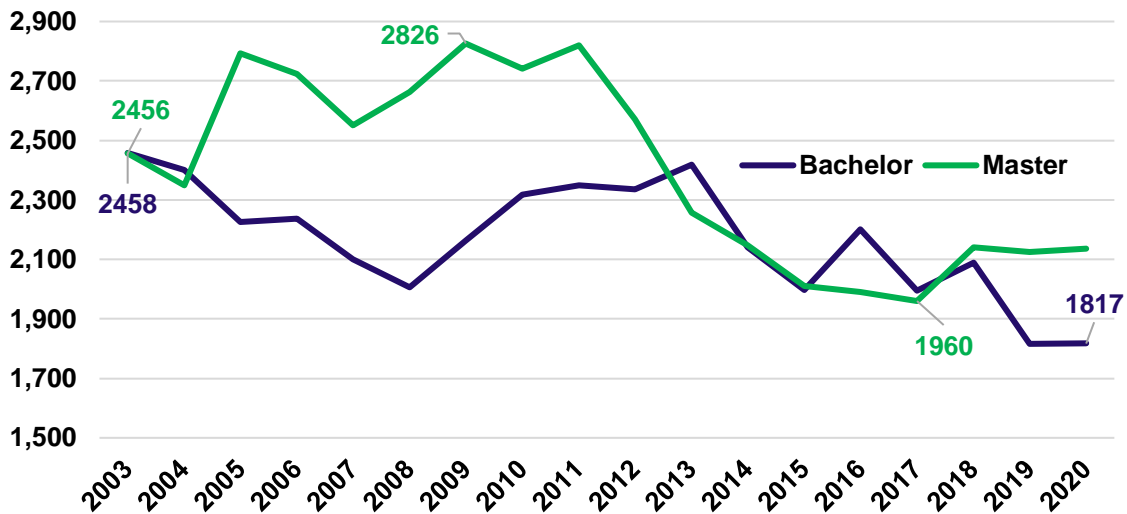
More about Teachers

The increase in the total number of teachers is not without concern. While the total number of teachers has increased by 2.6% since 2014, significant declines in the number of education graduates raise concerns. It's also important to note that the increase in the total number of teachers has been buoyed by a steep increase in the number of teachers licensed through alternative and emergency certificates (non-traditional).

Decline in Educator Prep Graduates

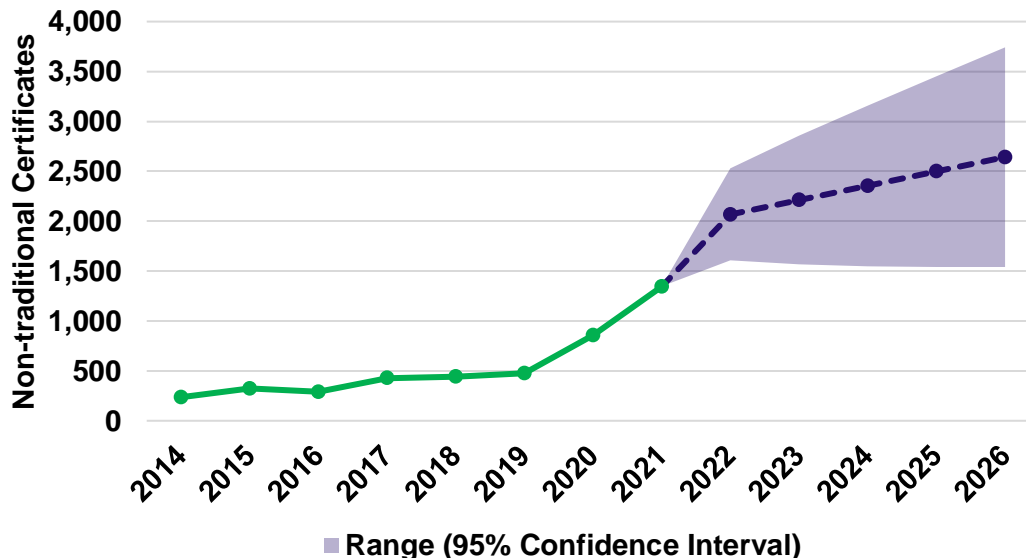
Since 2003, **Alabama's educator prep graduates have declined 19.6%**. The most severe decline can be found among those enrolled in bachelor's degree programs. **The number of bachelor's degrees earned in traditional teacher education fields has declined 26% over the last 18 years.**

Teacher Education Graduates



Non-traditional Certificates

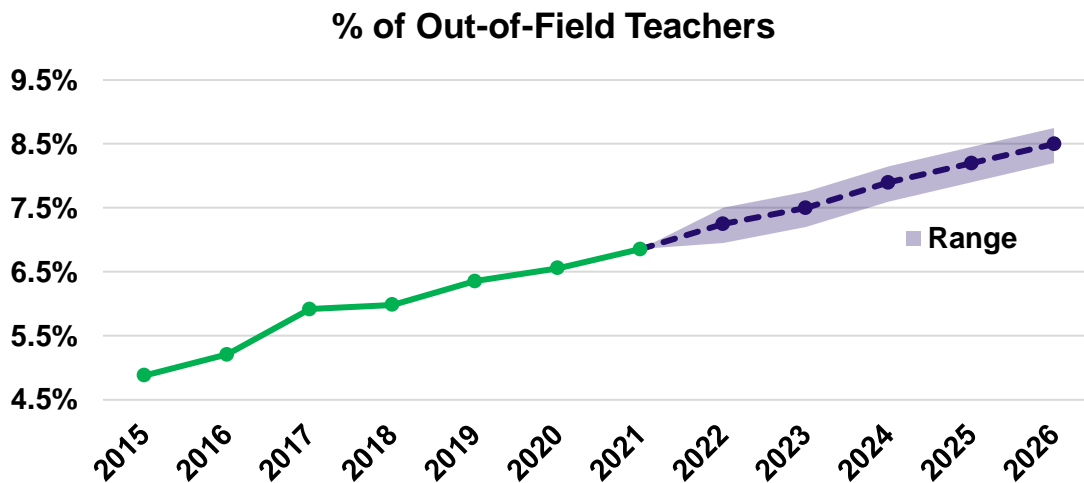
Since 2014, the total number of teachers has increased by 1,232 FTEs. Of that increase in the teacher supply, **90% (1,109) can be attributed to the increased number of teachers in the classroom with alternative and emergency certificates.**



The number of teachers teaching under non-traditional certificates is on pace to increase over 96% in the next five years.

In & Out-of-Subject:

Since 2015, the number of teachers teaching out of field has been on a steady rise. This trend is not unexpected when considering other factors such as increases in emergency and alternative certificates, declining enrollments and graduates in educator prep programs, and teacher retirement fluctuations.^v Since 2015, **the number of teachers that are teaching in subjects other than those they are certified to teach increased 2%**. If this trend continues, **by 2026 Alabama will have 8.5% of its teachers not certified to teach the subjects they are employed to teach.**



Despite the steep rise in the number of out-of-subject teachers, there is roughly the same number of schools with 30% and 50% or more of their teachers teaching out of field. **See Table 1.**

Table 1

Academic Year	# of schools with 30% or more of teachers teaching out of field*	# of schools with 50% or more of teachers teaching out of field
2015	23	7
2016	27	8
2017	43	10
2018	44	6
2019	38	6
2020	41	9
2021	38	5

* Schools with 50% or more of teachers teaching out of field are also included in the # of schools with 30% or more of teachers teaching out of field.

Alabama's Teacher Pipeline

The Alabama State Department of Education (ALSDE) has opened the teacher pipeline with varying efforts to address the state's teacher shortages. In recent years, ALSDE has created pathways to enter the teaching field for prospective teachers that have not completed traditional education preparation programs. Some efforts include:

- Eliminating the basic skills test for individuals with a bachelor's degree applying through various certification approaches.
- Extended emergency certificates from one academic year to two consecutive academic years, with the option of an additional two years.
- Adopted the Higher Education Transitional Certificate which allows those teaching in higher education to transition to K-12.

- Individuals who hold a valid Alabama professional certificate in a teaching field may verify 2 years of classroom teaching experience and pass a Praxis subject area test in a different teaching field to add a new area. This approach was expanded to include Algebra I, Geometry, and Collaborative K-6 and 6-12 (for certain individuals).
- Individuals who hold a Middle School Math (grades 4-8) Certificate can now teach Algebra I and Geometry at any grade level.
- Praxis subject area tests are no longer required for those applying for Alabama certification if they hold National Board Certification.
- Piloting alternative certification approach through online modules with Teachers of Tomorrow.
- Expedited file review and fee waiver for initial Alabama certificate for military personnel and their spouse.
- Individuals who hold at least a bachelor's equivalent for a Career and Technical Education Certificate can now add additional areas to their certificate by verifying the appropriate occupational proficiency and 2 years of classroom teaching experience.
- Individuals who don't meet certain GPA requirements can still teach if a higher Praxis score is attained.
- Reduced the number of course hours required in the teaching field to complete a Class B program to seek admissions to an alternate program.
- Streamlined the Class B program requirements for biology, chemistry, and physics by eliminating the requirements pertaining to supporting competencies in other areas of science.

While the traditional population of teachers may be shrinking, it does not represent the total potential teacher workforce pool in Alabama. An in-depth analysis of the impact that non-traditional routes have on the overall teacher supply will be needed to understand how these trends impact overall teacher recruitment and retention. This analysis could prove timely considering recent efforts to increase the pipeline for entry into the teaching profession in recent years.

Alabama Math & Science Teacher Education Program (AMSTEP)

AMSTEP's legislation was designed to have students prepare for being a teacher in math, science, or computer science by completing a required traditional educator prep program. AMSTEP's legislative charge is a two-fold teacher recruitment mission to:

- encourage individuals to enroll in and complete programs leading to Alabama certification in mathematics, science, or computer science; and
- improve the educational system in Alabama by encouraging those who complete the program to accept math, science, or computer science teaching positions in Alabama.

Teacher recruitment is defined as "the effort to increase the numbers of qualified persons willing to accept teaching positions."^{vi} It is common practice that loan repayment programs serve as a recruitment and retention tool.^{vii} It is often found that recruitment programs have the ancillary benefit of higher retention rates among program participants when compared to those that did not participate.^{viii} Entering its fourth year of awards, Alabama's loan repayment program should drive demand to achieve stated outcomes, but current participation indicates the program is retaining teachers rather than recruiting new ones. While this is a worthwhile outcome, it is not intended to be AMSTEP's primary one.

In the program's early years, policymakers and the Alabama Commission on Higher Education (ACHE) realized that AMSTEP's initial design created limitations. Originally, eligible participants did not include residents from other states or individuals who graduated from other states' teacher prep programs. This reduced the program's reach and thus its ability to recruit teachers from outside the state. Changes were made in the spring of 2021 to eliminate these limitations. Regardless, AMSTEP's current design and administration does not align with the program's two-fold purpose of recruitment. This inability to attract new teachers is seen in the current use of the program. To date, AMSTEP has only used 32% of the program's funding and the first-time participation has decreased each year since the program's inception.

AMSTEP by the Numbers

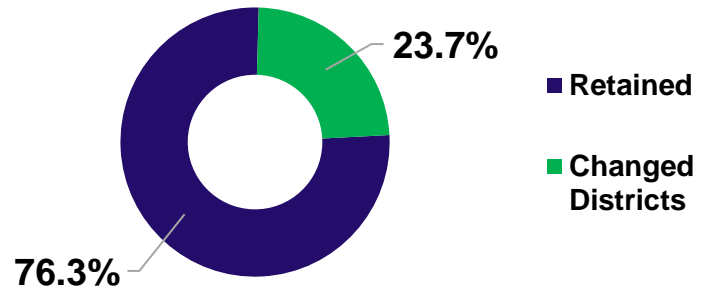
Hard-to-Staff Schools

One objective of AMSTEP is to recruit teachers to take math, science, and computer science positions in hard-to-staff schools. To achieve this outcome, recipients employed in hard-to-staff schools receive a supplemental award for each semester they are employed in these schools. Despite no changes in the list of hard-to-staff schools since its inception, only 5 teachers have received the supplemental award. This result aligns with evidence that supplemental awards must be significant to recruit teachers to hard-to-staff schools over nearby, more appealing locations.^{ix}

Retention

Early data suggests that AMSTEP is helping school districts retain their teachers. Of the 61 recipients, only two (3.3%) are no longer employed in public schools. Of those remaining, **45 (76.3%) remained in the same school district since their first award.** While a more thorough impact evaluation will be needed in the coming years, these early results indicate the AMSTEP may be effective at retaining teachers in schools.

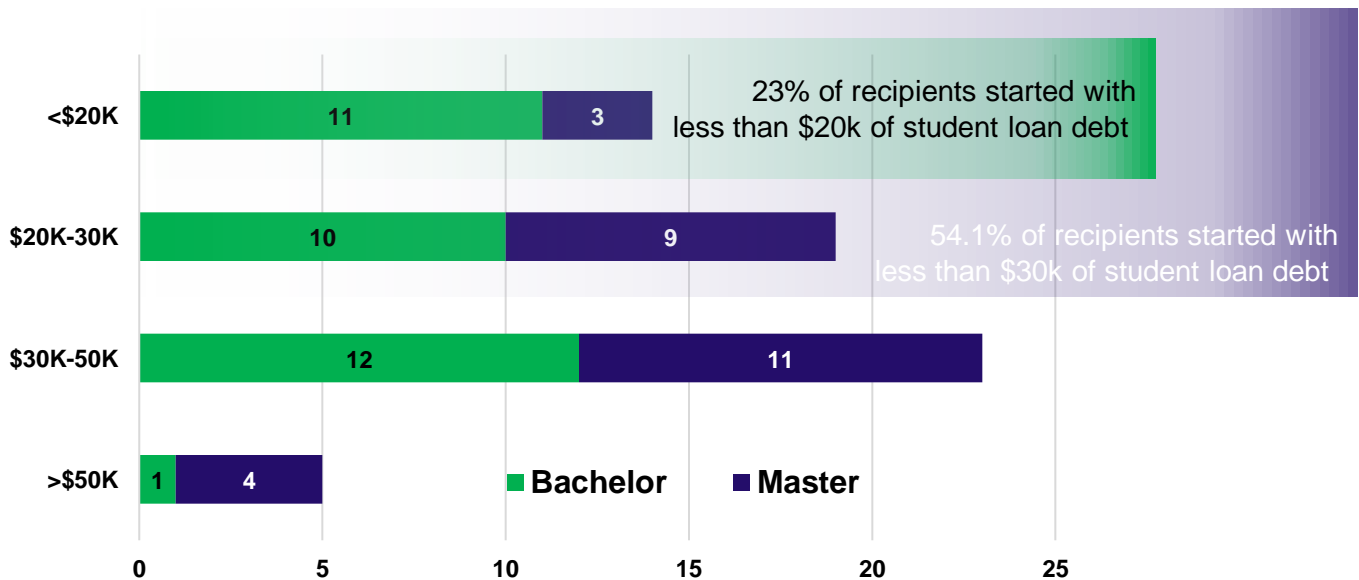
% of Recipients that Changed Districts



Debt to Award

Through the first three years of AMSTEP, three participants had 100% of their outstanding federal student loan debt repaid. Since the program is only entering its fourth full year, no other participants have received the maximum loan repayments offered by the program.

For current AMSTEP recipients, **the max \$20,000 award is large enough to cover the full federal student loan indebtedness for 32.4% of those recipients with a bachelor's degree and 11.1% of those with a master's degree (23% of all recipients).**



Leading evidence suggests that the larger the award amount, the better the recruitment and retention results of these type of programs.^x **If the maximum program award was increased to \$30,000, it would cover the total indebtedness for 61.8% of recipients with a bachelor's degree and 44.4% of those with a master's (54.1% of all recipients).**

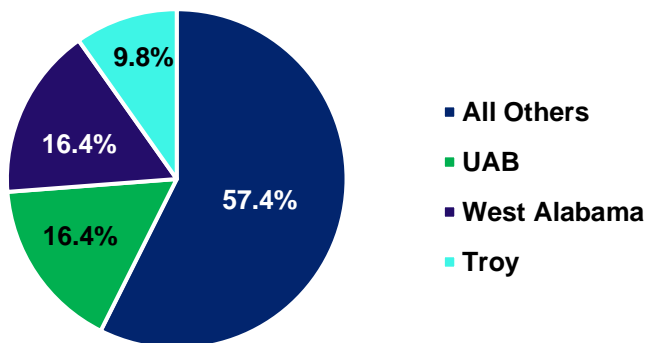
Reviewing other state award amounts shows that Alabama has the 3rd largest award amount and similar service requirements when compared to other southern states' programs. **See Table 2.**

Table 2

State	Life Max Award Amount	Max Service Years
Alabama	\$20,000	4
Mississippi	\$15,000	3
Tennessee	\$20,000	4
Oklahoma	Not to exceed three times the average annual undergrad tuition cost	5
South Carolina*	\$60,000	Dependent on area and subject
Arkansas	\$12,000	3
Texas	\$25,000	5
West Virginia	\$40,000	5

* South Carolina forgives loans at (1) the rate of 20% annually or \$3,000, whichever is greater; or (2) 33.3% or \$5,000, whichever is greater, depending on whether teaching in either a critical area and/or subject shortage area.

College Attended



Where participants went to college

Forty-three percent of all AMSTEP recipients earned their teaching certificate from three colleges or universities. Research indicates that future teachers are more likely to assume student loan debt and choose fields if they know repayment options exist.^{xi} The low participation rate for most of the state's colleges indicates an opportunity to expand marketing efforts in these institutions to raise awareness of AMSTEP's benefits.

Utilization

There have been thirty-three participants with an undergraduate degree and twenty-seven participants with graduate degrees. Though 40% of all awardees were first-time public-school teachers, AMSTEP has experienced a year-over-year decrease in first-time participation since 2018. (**See Table 3**) Of the 61 participants who received an award, 25 (41%) were previously employed in some role in an Alabama public school system. The declining participation rates combined with less than 60% of recipients being first-time teachers, indicate the need to increase program recruitment efforts.

Table 3

Year	# of First-Time Participants
2019	35
2020	14
2021	12

Recommendations

Recent changes allow AMSTEP to accept participants that are not Alabama residents and individuals who have not graduated from an Alabama college. As AMSTEP implements these new changes and enters its fourth year of awards, it will be important to closely monitor the impacts on the program. While these changes will increase the program's ability to recruit beyond state lines, increased eligibility alone will not result in recruitment of new teachers to the profession to meet AMSTEP's legislatively defined objectives.

To accomplish these objectives, **the Alabama Commission on Higher Education should:**

- Increase marketing and recruitment efforts of the program by marketing directly to students in teacher education programs or other education related degree programs.
- Begin planning to conduct an evaluation of the first cohorts of AMSTEP to determine the impact of the program.
- Closely monitor and report the outcomes the recent rule changes have made on Alabama's teacher recruitment and retention efforts.

To expand AMSTEP's ability to recruit and retain teachers, **the Legislature should consider:**

- Increasing maximum award amounts or the maximum number of annual awards for the base AMSTEP program to cover up to \$30,000 of student loan debt.
- Increasing the Hard-to-Staff supplemental award to increase recruitment of math, science, and computer science teachers to areas of greatest need.

Notes and References

While AMSTEP loan forgiveness is available to computer science teachers, no licensed teachers have received awards as of the time of this evaluation. For that reason, the awards for computer science teachers should maintain at their current amount until an evaluation is performed on its impact.

ⁱ Morgan, Cohen, Hershkoff. 1995. Establishing Education Program Inadequacy: The Alabama Example. University of Michigan Journal of Law Reform. Volume 28. <https://repository.law.umich.edu/cgi/viewcontent.cgi?article=1622&context=mjlr>
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Latterman and Steffes. NCSL. 2017. Tackling Teacher and Principal Shortages in Rural Areas.

ⁱⁱ Student Loan Forgiveness. NCSL. 2020. <https://www.ncsl.org/research/education/student-loan-forgiveness.aspx>

ⁱⁱⁱ Id.

^{iv} Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. Education Policy Analysis Archives, 27(35). <http://dx.doi.org/10.14507/epaa.27.3696>

^v Alabama's Teacher Retirement System. Report 2021.

^{vi} Page JM. Organization for Teacher Recruitment: An Analysis of Patterns and Trends. Journal of Teacher Education. 1959;10(2):134-156. doi:10.1177/002248715901000203

^{vii} Podolsky, A. & Kini, T. (2016). How Effective Are Loan Forgiveness and Service Scholarships for Recruiting Teachers? Palo Alto, CA: Learning Policy Institute.

^{viii} Id.

^{ix} Pey Yan Liou, Allison Kirchoff, and Frances Lawrenz, "Perceived Effects of Scholarships on STEM Majors' Commitment to Teaching in High Need Schools," Journal of Science Teacher Education 21, no. 4 (2010): 451-70.

Feng, L. & Sass, T. (2015). The Impact to Recruit and Retain Teachers in Hard to Staff Subjects: An Analysis of the Florida Critical Shortage Program.

^x Feng, L. & Sass, T. (2015). The Impact to Recruit and Retain Teachers in Hard to Staff Subjects: An Analysis of the Florida Critical Shortage Program.

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^{xi} Pey Yan Liou, Allison Kirchoff, and Frances Lawrenz, "Perceived Effects of Scholarships on STEM Majors' Commitment to Teaching in High Need Schools," Journal of Science Teacher Education 21, no. 4 (2010): 451-70.