

REL Southwest Ask A REL Response

Teacher Preparation

January 2020

Question:

What factors are associated with students entering a teacher preparation program in college, and what strategies are effective to recruit and retain students in teacher preparation programs, particularly for areas where shortages are most severe, such as math, science, and special education?

Response:

Thank you for the question you submitted to our REL Reference Desk. We have prepared the following memo with research references to help answer your question. For each reference, we provide an abstract, excerpt, or summary written by the study's author or publisher. Following an established Regional Educational Laboratory (REL) Southwest research protocol, we conducted a search for research reports as well as descriptive study articles on factors associated with students entering a college teacher preparation program, and effective strategies to recruit and retain teacher preparation students, particularly in severe shortage areas, such as math, science, and special education.

We have not evaluated the quality of references and the resources provided in this response. We offer them only for your reference. Also, we searched the references in the response from the most commonly used resources of research, but they are not comprehensive, and other relevant references and resources may exist. References provided are listed in alphabetical order, not necessarily in order of relevance. We do not include sources that are not freely available to the requestor.

Research References

Part 1: Factors Associated with Entry into Teacher Preparation Programs

Redding, C., & Baker, D. J. (2019). Understanding racial/ethnic diversity gaps among early career teachers. *AERA Open*, 5(2), 1–17. <https://eric.ed.gov/?id=EJ1220726>

From the ERIC abstract: “The growing evidence on the importance of teacher representation points to the need to better understand the factors shaping the lack of

racial/ethnic diversity in the teacher workforce. In this study, we examine the extent to which college major choice explains racial/ethnic gaps in teaching. Drawing on data from the Baccalaureate and Beyond Longitudinal Study, we find that White college graduates are close to twice as likely to major in education compared to Black, Latinx, and other graduates of color. Even among college graduates, respondents who identify as White are 5 percentage points more likely to enter teaching than respondents who identify as Black and 2 percentage points more likely to enter teaching than graduates who identify as Latinx. Regression and decomposition analyses demonstrate that the observed racial/ethnic gaps in entry to teaching can largely be explained by whether a graduate studied education in college.”

U.S. Department of Education, Office of Postsecondary Education. (2016). *Preparing and credentialing the nation's teachers: The Secretary's 10th report on teacher quality*, Washington, DC: Author. <https://eric.ed.gov/?id=ED576185>

From the ERIC abstract: “This 10th report on teacher quality presents information states reported to the U.S. Department of Education (Department) in October 2012, October 2013, and October 2014. ‘Title II’ of the ‘Higher Education Act of 1965’ (‘HEA’), as amended in 2008 by the Higher Education Opportunity Act (HEOA), requires states to report annually on key elements of their teacher preparation programs and requirements for initial teacher credentialing, kindergarten through 12th grade, on a State Report Card designated by the Secretary. For many data elements, such as the number of individuals enrolled in and completing teacher preparation programs, states reported on AY 2010-11 data in 2012, AY 2011-12 data in 2013, and AY 2012-13 data in 2014. For other data elements, such as the admission requirements for each teacher preparation program and descriptions of the state's alternative routes to a teacher credential, states reported on the most current information available each year. The 10th report provides a national overview of the state data by key topics collected through the State Report Cards, including graphics showing ‘Title II’ longitudinal trends over more than a decade of state reporting. Similar to previous reports, the report is organized into chapters, with each summarizing states' data on ‘HEA Title II’ key elements. The chapters are: (1) Teacher Preparation Providers and Programs; (2) Teacher Preparation Program Participants; (3) Institutions of Higher Education Offering Teacher Preparation Programs; (4) State Standards for Teaching Credentials; (5) Evaluation of Teacher Preparation Programs; (6) Assessments Required for an Initial Teaching Credential; and (7) State Initial Credentials for Teachers.”

Part 2: Effective Strategies for Recruitment and Retention in Teacher Preparation Programs

Boggan, M. K., Jayroe, T., & Alexander, B. (2016). Best practices article: Hitting the target with transition to teaching in Mississippi’s poorest school districts: High retention rates through program support, resources, and strategic recruitment. *Journal of the National Association for Alternative Certification*, 11(1), 21–29. <https://eric.ed.gov/?id=EJ1100870>

From the ERIC abstract: “In order to assist in alleviating the teaching shortage in poor, rural school districts, also known as Local Education Agencies (LEA’s), faculty in the College of Education at Mississippi State University sought funding that would provide financial support for a new alternate route teaching program. This program, known as Learning and Educating through Alternative Programs (LEAP), would address preparation and retention issues in teacher preparation. This article will tell the story of how this transition to teaching program used effective support, resources, and strategic recruiting in order to yield high retention rates in partner school district[s], often at nearly 90 percent during the first three years of teaching.”

Coffey, H., Putman, S. M., Handler, L. K., & Leach, W. (2019). Growing them early: Recruiting and preparing future urban teachers through an early college collaboration between a college of education and an urban school district. *Teacher Education Quarterly*, 46(1), 35–54. <https://eric.ed.gov/?id=EJ1202462>. Retrieved from https://www.academia.edu/38591498/TEQ_Winter_Special_Issue_Examining_Grow_Your_Own_Programs_and_Teachers_of_Color

From the ERIC abstract: “While Grow Your Own (GYO) programs have sought for decades to remedy teacher shortages across the United States, myriad factors, including the demographic shifts in public school populations, have in recent years exacerbated the need to recruit and retain teachers of color and of bilingual backgrounds. Amid models of precollegiate and university-based GYO programs, a unique early college program, the Charlotte Teacher Early College (CTEC), was developed in partnership between a large urban school district and an urban college of education to intentionally attract and support students historically marginalized from the profession. This article describes the innovative elements of the program, such as the curriculum, workshops, and mentorships, designed to build from previous GYO successes and to capitalize on assets offered by this particular community. Because CTEC is only in its second year of implementation, the authors present challenges and opportunities for growth and research both for this particular program and for the broader GYO teacher preparation movement.”

Garcia, A., Manuel, A., & Buly, M. R. (2019). Washington state policy spotlight: A multifaceted approach to Grow Your Own pathways. *Teacher Education Quarterly*, 46(1), 69–78. <https://eric.ed.gov/?id=EJ1202137> Retrieved from https://www.academia.edu/38591498/TEQ_Winter_Special_Issue_Examining_Grow_Your_Own_Programs_and_Teachers_of_Color

From the ERIC abstract: “English learners (ELs) make up 10% of the U.S. student population and are increasingly enrolling in school districts that have little experience with educating these students. A majority of states report shortages in teachers prepared to work with ELs, particularly in the area of bilingual education. Grow Your Own (GYO) programs that recruit and prepare future educators from the community have the potential to increase the supply of bilingual educators who can provide ELs with instruction in their home languages and support their mastery of academic content. Policy makers in Washington State are taking an intentional approach toward remediating educator shortages in the state through alternative routes to certification, expanded pathways for paraeducators, and targeted course work for high school students. Alternative routes are

positioned as a driver of local innovation that places emphasis on GYO approaches and the recruitment of teacher candidates from underserved populations. State grants support the development of university-school district partnerships to recruit and prepare a teacher workforce to meet local needs. The Woodring Highline Bilingual Fellows program is a partnership aimed at preparing bilingual paraeducators to become licensed teachers in order to meet the school district's growing need for bilingual educators. Key lessons from Washington's myriad initiatives point to the need for collaboration between multiple stakeholders to ensure a common vision and mission for these programs.”

Garza, R., & Werner, P. (2014). Preparing mathematics and science teachers through a residency program: Perceptions and reflections. *Teaching Education*, 25(2), 202–216.
<https://eric.ed.gov/?id=EJ1026123> Retrieved from
<https://www.researchgate.net/publication/262579923>

From the ERIC abstract: “The critical challenge of recruiting, preparing, and retaining high-quality mathematics and science teachers for high-need urban schools is complex. Therefore, identifying factors that support and impede a teaching residency program’s implementation may have the potential to build an effective initiative that will benefit all stakeholders. The purpose of our study was to examine preservice teachers’ perceptions about their experiences in the Teaching Residency Program for [the] Critical Shortage Areas program, a federally funded program designed to address teacher shortages in mathematics and science in high-need schools. Three themes emerged from the data analysis: (a) the residency framework, (b) a relevant curriculum, and (c) immersion in an authentic school context. Our findings have the potential to inform policy-makers, school administrators, university directors of school partnerships, and other individuals who have direct influence on teacher recruitment and retention.”

Gist, C. D., Bianco, M., & Lynn, M. (2019). Examining Grow Your Own programs across the teacher development continuum: Mining research on teachers of color and nontraditional educator pipelines. *Journal of Teacher Education*, 70(1), 13–25.
<https://eric.ed.gov/?id=EJ1199711>. Retrieved from
<https://sehd.ucdenver.edu/impact/files/JTE-GYO-article.pdf>

From the ERIC abstract: “Grow Your Own (GYO) programs are cited in recent policy briefs as viable pathways for increasing the racial/ethnic diversity of teachers, yet recent scholarship on GYO programs is minimal. To address this issue, this article investigates what we know, and do not know, about GYO programs, by examining a range of data sources on different types of GYO program teacher pools (e.g., middle/high school, paraprofessional, community activists/parents mentors) and making sense of findings over a continuum of teacher development (e.g., recruitment, preparation, induction, and retention). Based on a research synthesis within and across GYO program teacher pools, we argue implications for policy, practice, and research that should accompany increased recommendations for expanding GYO models for Teachers of Color.”

Henry, G. T., Bastian, K. C., & Smith, A. A. (2012). Scholarships to recruit the “best and brightest” into teaching: Who is recruited, where do they teach, how effective are they, and how long do they stay? *Educational Researcher*, 41(3), 83–92.

<https://eric.ed.gov/?id=EJ960397> Retrieved from:
<https://publicpolicy.unc.edu/files/2015/07/Scholarships-to-Recruit-the-Best-and-Brightest-Into-Teaching.pdf>

From the ERIC abstract: “Is a popular innovation for increasing human capital in the teaching profession—competitive college scholarships for teachers—effective? The authors show that one large and long-standing merit-based scholarship program (a) attracts teacher candidates who have high academic qualifications; (b) yields graduates who teach lower performing students, although not as challenging as the students of other beginning teachers; (c) produces teachers who raise high school and third- through eighth-grade mathematics test scores more than other traditionally prepared teachers do; and (d) produces teachers who stay in public school classrooms for 5 years or more at higher rates than alternative entry or other traditionally prepared teachers.”

Herrera, S. G., Morales, A. R., Holmes, M. A., & Terry, D. H. (2012). From remediation to acceleration: Recruiting, retaining, and graduating future culturally and linguistically diverse (CLD) educators. *Journal of College Student Retention: Research, Theory & Practice*, 13(2), 229–250. <https://eric.ed.gov/?id=EJ937718> Retrieved from <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1283&context=teachlearnfacpub>

From the ERIC abstract: “This ethnographic case study explores one mid-western state university's response to the challenge of culturally and linguistically diverse (CLD), especially Latino/a, student recruitment and retention. BESITOS (Bilingual/Bicultural Education Students Interacting To Obtain Success) is an integrated teacher preparation program implemented at a predominantly White university that seeks to both increase Latino/a students' initial access to higher education and provide institutional support to facilitate a high rate of graduation. The researchers consider key elements of the BESITOS program model as they relate to and support the sociocultural, linguistic, academic, and cognitive dimensions of the CLD student biography. For each dimension, the program model is first placed in the context of existing literature on CLD student education. The key elements and strategies of the program model used to successfully meet recruitment and retention goals are then discussed.”

Irizarry, J. G. (2007). “Home-growing” teachers of color: Lessons learned from a town-grown partnership. *Teacher Education Quarterly*, 34(4), 87–102.
<https://eric.ed.gov/?id=EJ795190>

From the ERIC abstract: “Many institutions that prepare teachers profess a commitment to issues of diversity and educational equity in their mission and vision statements. However, despite the fact that the enrollment of students of color in institutions of higher education has increased by 48% over the last ten years, the racial/ethnic composition of teacher preparation programs has changed relatively little. Although teacher preparation programs have had a larger pool of students of color from which to recruit, they have not been successful in attracting more students of color into the profession through traditional preservice pathways. If diversifying the teaching force is a goal from which people of color as well as Whites benefit, then the active recruitment of people of color into the

profession should be part of the work of teacher preparation programs and district-based teacher recruitment efforts. As such, colleges and schools of education need to develop new approaches aimed at improving the recruitment, retention, and preparation of teachers of color. This article explores the challenges associated with diversifying the teaching force through preservice teacher education programs and forwards ‘homegrowing’—that is, recruiting individuals to work as educators in the communities in which they were raised and educated—as one strategy to do so. It highlights Project TEACH, a town-gown partnership between an institution of higher education and a local community, examining features of the program that were identified by participants as influential to their successful transition into the teaching profession.”

Lau, K. F., Dandy, E., & Hoffman, L. (2007). The pathways program: A model for increasing the number of teachers of color. *Teacher Education Quarterly*, 34(3), 27–40.
<https://eric.ed.gov/?id=EJ795184>

From the ERIC abstract: “The Pathways to Teaching Careers Program was a national recruitment effort started in 1989 to bring teachers of color into the teaching profession. This effort was instrumental in forging the investment of some \$50 million for a series of grants that included 26 programs in 66 colleges and universities, located in 43 cities in 26 states (the Armstrong Atlantic State University Pathways Program began as a grantee in 1992). The grant was targeted to produce, recruit and prepare more than 3,000 teachers, especially minorities, who would serve more than 100,000 students annually in urban and rural public school systems. Regional technical assistance for program direction in the southern states was provided by the Southern Education Foundation, that has a 125-year record for promoting equity and equality in education. A six-year study yielded a recruitment goal of 2,593 participants and documented an 81% retention rate. The national Pathways Program targeted three groups of school personnel—teacher assistants, substitute teachers, and provisionally certified teachers—all of whom were non-certified public school employees. Programs that participated in this initiative were required to have the following essential features: a consortium structure partnering historically black colleges and universities with traditionally white institutions and school districts, a value-added philosophy that guided recruitment and enhancements to teacher preparation curricula, and a nontraditional talent pool as the target recruitment population. In this article, the authors examine the Armstrong Atlantic State University Pathways to Teaching Program. First, they describe basic features of the program itself, and provide data on its graduates. Then, they report results of a study investigating factors underlying its high rate of retention.”

Mannion, C. M., & Davis, J. R. (2018). (Un)knowingly made for the middle: Why teacher candidates decide to teach in middle schools. *Current Issues in Middle Level Education*, 23(1), 1–21. <https://eric.ed.gov/?id=EJ1191663>

From the ERIC abstract: “This study used a mixed methods approach to examine why teacher candidates choose to teach in a middle school. The study analyzed two populations of pre-service teachers in The College of New Jersey’s (TCNJ) Secondary Education department: (a) students completing their first field experience in a middle

school and (b) students who were part of TCNJ’s first two middle school specialization cohorts. The first group of participants completed pre and post surveys surrounding their field experience and a sub-set of participants engaged in interviews. The second group of participants engaged in semi-structured interviews. The data revealed four major themes to underpin teacher candidates’ motivations to teach in either a middle or high school: (a) impact; (b) perceptions of middle school; (c) content; and (d) job prospects. This knowledge is necessary for understanding how middle level teacher preparation programs recruit and retain strong candidates to teach in middle schools.”

Roegman, R., Pratt, S., Goodwin, A. L., & Akin, S. (2017). Curriculum, social justice, and inquiry in the field: Investigating retention in an urban teacher residency. *Action in Teacher Education*, 39(4), 432– 452. <https://eric.ed.gov/?id=EJ1164266>. Retrieved from <https://www.researchgate.net/publication/321867632>

From the ERIC abstract: “This qualitative study analyzes the retention data of an urban teacher residency program, a recent approach to developing quality teachers. The authors identify patterns of movers, leavers, and stayers and draw on interview data to better understand residents’ (program graduates) perspectives on ways the program informs their practice after graduation. Using the university conceptual framework of curriculum, inquiry, and social justice, the authors examine how residents might demonstrate retention and practice of key concepts and principles that undergirded their residency program. This study furthers our understanding of how residencies support the preparation of new teachers in high-needs schools and shortage areas.”

Stewart, S., Coombs, L., & Burston, B. (2016). What’s sex got to do with it? The preparation of elementary male teacher candidates. *Journal for Multicultural Education*, 10(1), 2–18. <https://eric.ed.gov/?id=EJ1165575> Retrieved from <https://www.researchgate.net/publication/302917588>

From the ERIC abstract: “Purpose: This paper examines the experiences and outcomes of male teacher candidates in the College of Education at a large university in California. Design/methodology/approach: This mixed methods study highlights findings from the preliminary analysis of student records as well as qualitative observation notes from their university supervisors and master teachers during their student teaching placements. Comments from student teaching assistance plans and remediation tools from the College of Education, Field Placement Office were also used. It also included the quantitative analysis of enrollment data as well as mid- and final student teaching evaluations for one semester. This multiple data triangulation process was used to illuminate the unique challenges and successes of male teacher candidates and the variables that influence their outcomes. Findings: There were significant statistical differences ($p < 0.05$) between the male and female teacher candidates across each key measure used. Male teacher candidates scored lower in the areas of mathematics, assessment, planning and student engagement during instruction. Practical implications: This study offers strategies that teachers' trainers may use to recruit, retain and more effectively support the needs of their male elementary teacher candidates. Originality/value: Few studies have examined both qualitative and quantitative data to determine pedagogical factors that impact male

teacher candidates' challenges and/or successes during their student teaching experiences. Moreover, few studies have explored how teacher training programs can more effectively support the needs of this population. This study is designed to fill that void.”

Swanson, P. B. (2011). Georgia’s Grow-Your-Own teacher programs attract the right stuff. *The High School Journal*, 94(3), 119–133. <https://eric.ed.gov/?id=EJ925915> Retrieved from https://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1027&context=mcl_facpub

From the ERIC abstract: “There is a shortage of educators and there are various factors that account for the lack of teachers. Millions of new teachers will be needed in the near future and the present study juxtaposes the vocational personality profiles of adolescents (N = 262) participating in Future Educators of America programs in Georgia to in-service teachers’ profiles as determined by Holland’s ‘Self-Directed Search’ inventory. Using Holland’s theoretical framework for congruence between one’s personality and the workplace as a lens, the results indicated that adolescents in the future educator programs shared the same Holland code as in-service teachers. Noting that teachers tend to return to the area in which they were raised, findings from this research have serious implications for the identification and recruitment of tomorrow’s teaching force.”

Tyler, N. C., Yzquierdo, Z., Lopez-Reyna, N., & Saunders Flippin, S. (2004). Cultural and linguistic diversity and the special education workforce: A critical overview. *Journal of Special Education*, 38(1), 22–38. <https://eric.ed.gov/?id=EJ693728>

From the ERIC abstract: “The need for special education teachers from culturally and/or linguistically diverse (CLD) backgrounds has become a national concern. The majority of school districts nationwide list the recruitment and retention of teachers from diverse backgrounds as a priority. Many cite difficulties with finding adequate personnel, a problem that is complicated by current special education teacher shortages. The authors of this article synthesize research findings on the current demographics of diverse teachers and the impact on student outcomes. They also summarize qualities of teacher preparation programs that successfully prepare CLD teachers according to the following themes: recruitment, retention, alternative certification, and post-teacher preparation. Recommendations for future research are provided.”

Wong, P. L. et al. (2007). The M/M Center: Meeting the demand for multicultural, multilingual teacher preparation. *Teacher Education Quarterly*, 34(4), 9–25. <https://eric.ed.gov/?id=EJ795183>

From the ERIC abstract: “The Multilingual/Multicultural Teacher Preparation Center (M/M Center), a teacher preparation program offered by the Bilingual/Multicultural Education Department (BMED) at California State University, Sacramento, is entering its third decade of operation. The M/M Center was established by a group of progressive teacher educators, most with a history of activism and advocacy around democratic education, immigrant rights, and the elimination of racism and other forms of discrimination in local schools and our own university. The Center founders developed a comprehensive program to prepare teachers to be change agents actively working towards social justice in low-income and culturally and linguistically diverse classrooms,

schools, and communities. Race-conscious and language-conscious policy-making and program development characterize the program's history and current operations. Multicultural content and the application of theory into practice through extensive field experiences in schools serving low-income and culturally and linguistically diverse students anchor the program's design. Focus on these issues combined with active and strategic recruiting and support make the M/M Center an attractive option for students of color and bilingual students who typically select the teaching profession as the avenue through which they will work towards social justice for the children in their communities. By sharing details and analysis of the M/M Center, the authors hope to engage other social justice educators in critical reflection on effective practices in multicultural/multilingual teacher recruitment to and retention in teacher preparation programs. This article is organized as follows: (a) the theoretical framework that orients the authors' efforts to recruit and retain students of color and bilingual students; (b) history of the M/M Center; (c) highlights from their multiple and single subject programs; and (d) reflections on the M/M Center's accomplishments. It describes the M/M Center based on the experiences and perspectives of the authors—one of whom was a co-founding member of the M/M Center and of BMED, and others who have been active in recent transformations of the Center and Department. Where appropriate, they accentuate their description with data from a limited set of sources including graduate exit surveys, student work, student interviews, and anecdotal stories and accounts.”

Additional Organizations to Consult

Center for Educator Recruitment, Retention, and Advancement (CERRA) Teacher Cadet program, South Carolina—<https://www.cerra.org/>

From the website: “CERRA provides a number of programs that serve as a national model for teacher recruitment and teacher leadership initiatives. CERRA’s agenda is a comprehensive one in which the Center pursues a variety of programs for increasing the number of students in the education pipeline and recruiting and retaining qualified, caring, and competent teachers. The Center’s primary target groups are middle and high school students, college students, and adults interested in changing careers.

CERRA also targets groups of accomplished teachers through programs including mentoring, teacher leadership and National Board Certification. The network of educators in our programs overlaps in powerful ways to increase the level of collaboration for recruitment, retention, and advancement of South Carolina educators.”

Center on Great Teachers and Leaders at American Institutes for Research—<http://www.gtlcenter.org/>

From the website: “The Center on Great Teachers and Leaders (GTL Center) is dedicated to supporting state education leaders in their efforts to grow, respect, and retain great teachers and leaders for all students. The GTL Center continues the work of the National Comprehensive Center for Teacher Quality (TQ Center) and expands its focus to provide technical assistance and online resources designed to build systems that:

- Support the implementation of college and career standards.
- Ensure the equitable access of effective teachers and leaders.
- Recruit, retain, reward, and support effective educators.
- Develop coherent human capital management systems.
- Create safe academic environments that increase student learning through positive behavior management and appropriate discipline.
- Use data to guide professional development and improve instruction.”

Education Commission of the States—<https://www.ecs.org/>

From the website: “Education Commission of the States serves as a partner to state policymakers by providing personalized support, unbiased information and opportunities for collaboration. Through our programs and services, policymakers gain the insight and experience needed to create more effective education policy.”

National Council on Teacher Quality (NCTQ)—<https://www.nctq.org/>

From the website: “The National Council on Teacher Quality (NCTQ) is a nonpartisan, not-for-profit research and policy organization that is committed to modernizing the teaching profession. We conduct research to assist states, districts, and teacher prep programs with teacher quality issues. We don’t just call attention to what’s wrong, but offer concrete solutions to help solve teacher quality challenges.”

REL Southwest note: NCTQ offers the following relevant resource “State Teacher Policy Database: Licensure Advancement” available at <https://www.nctq.org/yearbook/national/Licensure-Advancement-79>

Title II, Higher Education Act, Office of Postsecondary Education (OPE), U.S. Department of Education (ED)—<https://title2.ed.gov/Public/Home.aspx>

From the website: “Academic Year 2016-17 Data: The 2018 State Reports include data that states reported to the Department in October 2018. For many data elements, such as the number of individuals enrolled in teacher preparation programs, states reported on AY 2016-17 data. For other data elements, such as the admission requirements for each teacher preparation program and descriptions of the state's alternative routes to a teacher credential, states reported on the most current information available.”

REL Southwest note: ED’s Title II website also provides relevant booklets, issue briefs, and annual reports to the Secretary available at <https://title2.ed.gov/Public/SecReport.aspx>

UTeach Institute—<https://institute.uteach.utexas.edu/>

From the website: “We have more than a decade of experience supporting the successful implementation of UTeach programs across a variety of university settings. Our proven model is research-based and employs an improvement approach designed to take advantage of our network of faculty expertise.

The UTeach network crosses the entire nation, with UTeach teacher preparation programs in 45 universities and thousands of UTeach alumni working at school, district, and state levels to improve secondary STEM education.

In collaboration with the National Math and Science Initiative, we support UTeach teacher preparation programs with comprehensive resources and technical assistance to universities implementing the program. Through the UTeach STEM Educators Association (USEA), we continue that support through the national network.

Our National UTeach Alumni Network connects our thousands of alumni teachers and leaders across the U.S.—giving them an online community where they support each other.”

REL Southwest note: The UTeach Institute provides the following relevant publication:

Cade, W., Liu, F., Vaden-Kiernan, M., & Dodson, M. (2019). An examination of recruitment and retention of UTeach program candidates. American Institutes for Research. Available at: <https://uteach.utexas.edu/sites/uteach.utexas.edu/files/air-retention-report.pdf>

Methods

Keywords and Search Strings

The following keywords and search strings were used to search the reference databases and other sources:

- [(“college teacher preparation program” OR “education major”) AND (“recruitment” OR “retention” OR “Grow Your Own” OR “critical shortage areas”)]
- [(“college teacher preparation program” OR “education major”) AND (“special education”)]
- [(“college teacher preparation program” OR “education major”) AND (“critical shortage areas”)]
- [(“teacher preparation program” OR “education major”) AND (“recruitment” OR “retention”)]
- [(“teacher preparation program” OR “education major”) AND (“recruitment” OR “retention” OR “Grow Your Own”)]
- (“colleges of education” AND “student attitudes”)

Databases and Resources

We searched [ERIC](#) for relevant, peer-reviewed research references. ERIC is a free online library of more than 1.7 million citations of education research sponsored by the Institute of Education Sciences (IES). In addition, we searched the [What Works Clearinghouse](#).

Reference Search and Selection Criteria

When we were searching and reviewing resources, we considered the following criteria:

- *Date of the publication:* References and resources published from 2004 to present were included in the search and review.
- *Search priorities of reference sources:* Search priority is given to study reports, briefs, and other documents that are published and/or reviewed by IES and other federal or federally funded organizations and academic databases, including ERIC, EBSCO, JSTOR, PsycINFO, PsycARTICLES, and Google Scholar.
- *Methodology:* The following methodological priorities/considerations were given in the review and selection of the references: (a) study types—randomized controlled trials, quasi-experiments, correlational studies, descriptive data analyses, literature reviews, mixed-methods analyses, and so forth; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected, and so forth), study duration, and so forth; and (c) limitations, generalizability of the findings and conclusions, and so forth.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by stakeholders in the Southwest Region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), which is served by the Regional Educational Laboratory (REL) Southwest at AIR. This memorandum was prepared by REL Southwest under a contract with the U.S. Department of Education’s Institute of Education Sciences (IES), Contract ED-IES-91990018C0002, administered by AIR. Its content does not necessarily reflect the views or policies of IES or the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.