

TEXAS Comprehensive Center
at American Institutes for Research ■

Grow Your Own Teachers Initiatives Resources

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Executive Summary

This compilation of short summaries of Grow Your Own (GYO) teacher resources, prepared for the Texas Education Agency (TEA) by the Texas Comprehensive Center (TXCC) at American Institutes for Research (AIR), is organized around research questions developed by TEA to inform the Texas GYO teacher strategy. This is meant to be a living document and not a systematic or comprehensive review of the GYO teacher literature; TXCC will continue to add to this document as new resources are identified.

Why are districts and states adopting Grow Your Own teacher programs?

The majority of teachers tend to work in schools near their hometowns, indicating that localized Grow Your Own efforts may have merit. The majority of teachers also tend to teach in schools that are similar to those they attended as students, which may negatively impact the quality or quantity of teacher candidates for lower performing schools. Grow Your Own programs, developed in partnership between university-based teacher education programs and local high schools, encourage high school students to consider becoming a teacher. Although these programs may differ in their scope and emphasis, many have similar components, including college visits, college readiness skills, and promoting the teaching profession by tutoring younger children.

What evidence of success for Grow Your Own teacher programs exists?

Little research or literature exists on the success of Grow Your Own programs; most of the information available comes from specific program evaluations, which focus on providing recommendations for continuous improvement, or from anecdotal evidence provided in promotional publications. The available research suggests that many Grow Your Own programs focus on recruiting adults from the local community and face challenges based on the academic preparation of the Grow Your Own candidates. Programs that focus on recruiting high school students to the profession have shown more success. The cost-benefit of these programs for districts is unclear.

What motivates teachers to enter or exit the teaching workforce?

Many teachers join the teaching workforce because they have a desire to serve or because they enjoy working with children; however, teachers often cite burdensome paperwork or workloads and poor compensation as reasons for leaving. New teachers often prefer to teach in districts close to their hometowns and are more likely to apply to schools with student populations that reflect their own backgrounds. Concerns about safety, perceptions of low pay, a lack of opportunities for advancement, and the difficulties facing education in general are barriers to entering the profession. Teachers cite strong principal leadership, supportive colleagues, and autonomy as reasons they stay in the profession.

At what point would an intervention be most likely to encourage someone to consider the teaching profession?

Studies suggest that high school recruitment programs may be more effective than programs targeting adults to move into teaching. Partnerships between K–12 schools and institutions of higher education (IHEs), including community colleges, are important for teacher recruitment. Community colleges are particularly important entry points for minority teachers.

What factors are most powerful in motivating future teachers of color?

The research shows that the diversity of the teaching workforce is critical for many reasons. Teachers of color who reflect minority students have positive effects on minority student achievement, advanced-level course enrollment, college attendance rate, retention, and school attendance. Though teachers of color also show greater commitment to high-need student populations, they are underrepresented in the teaching workforce, and generally have higher rates of attrition than White teachers. In general, minority students have lower college matriculation rates, reducing the pool of potential teacher candidates. Programs targeting high school minority students to become teachers should consider the nuanced reasons these students may be attracted to teaching, the supports they need to complete a preparation program successfully, and the school culture and support that promote retention.

What factors are most powerful in motivating future teachers in rural areas?

Grow Your Own teacher programs are promising solutions for hard-to-staff rural districts because the teacher candidates are accustomed to a rural lifestyle and have community ties. Emphasizing that teacher candidates will have the opportunity to serve students from the same community may be a successful recruitment strategy.

Why are districts and states adopting Grow Your Own teacher programs?

Summary: The majority of teachers tend to work in schools near their hometowns, indicating that localized Grow Your Own efforts may have merit. The majority of teachers also tend to teach in schools that are similar to those they attended as students, which may negatively impact the quality or quantity of teacher candidates for lower performing schools. Grow Your Own programs, developed in partnership between university-based teacher education programs and local high schools, encourage high school students to consider becoming a teacher. Although these programs may differ in their scope and emphasis, many have similar components, including college visits, college readiness skills, and promoting the teaching profession by tutoring younger children.

Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2003). The draw of home: How teachers' preferences for proximity disadvantage urban schools. *Journal of Policy Analysis and Management*, 24(1), 113–132. Retrieved from https://www.researchgate.net/profile/Donald_Boyd/publication/227344843_The_draw_of_home_How_teachers_preferences_for_proximity_disadvantage_urban_schools/links/0c96051f7b1425f53a000000.pdf

- In New York State, 61% of first-year public school teachers worked in schools within 15 miles of their hometown, and 85% worked within 40 miles.
- Teachers in New York urban areas, teachers of color, and teachers with weaker academic qualifications tend to have more geographic limitation than other teachers.
- Teachers from lower socioeconomic groups are more geographically limited in labor market participation than others.
- Teachers strongly prefer to teach close to their hometown, and, if they do not stay local, they tend to work in schools that serve students with similar characteristics to the students where the teachers themselves attended school.

Bragg, D. D. (2007). Teacher pipelines: Career pathways extending from high school to community college to university. *Community College Review*, 35(1), 10–29.

- “Working with a variety of institutional partners, community colleges are developing career pathways that recruit high school students into teacher education programs extending from the secondary level to the 2-year college and, ultimately, the baccalaureate degree” (p. 1).
- Career pathways offer “curricula aligned with state academic standards and grade-level expectations as well as with high school testing and exit requirements. Career pathways are also encouraged to award college credit through credit-based transition programs such as dual credit, dual enrollment, tech prep, and advanced placement” (p. 12).
- Career pathway programs improve student retention by connecting academic studies to professional aspirations. Career pathways hope to make education more relevant for students and help them “realize that college is a viable option” (p. 13).
- The Anne Arundel Community College (AACC) Partnership in Maryland offers an Academy of Teaching Professions in which high school juniors and seniors take courses aligned and sequenced with the teacher education program. The program introduces high school students to teaching and leads them into courses required for majoring in education at AACC or elsewhere. Thirty-nine percent of participants matriculated at AACC.

- Lorain County Community College (LCCC) in Ohio created the Teacher Education Exploration (TEE) program, which encourages high school seniors to enter the teaching profession. TEE students receive three high school credits for classroom work and participate in an internship in a K–8 classroom. Upon high school graduation and matriculation at LCCC, TEE students who maintain a B average in the program earn three college semester hours toward their teaching degree. In fall 2005, the program enrolled 129 students (with grade-to-grade retention by high school students at 90%). The rate of student matriculation from high school to LCCC was 32%.
- Three Maricopa Community College Districts—Estrella Mountain Community College, South Mountain Community College, and Phoenix College—participate in a pathways program by identifying a cohort of high school students. Arizona adopted the South Carolina–based Teacher Cadet model, which prepares high school graduates to become certified as classroom paraprofessionals and aligns with the colleges’ introductory courses in education. In fall 2005, 244 high school students participated in a program (with a 97.5% grade-to-grade retention).

Engel, M., Jacob, B., & Curran, F. (2014). New evidence on teacher labor supply. *American Educational Research Journal*, 51(1), 403–434. Retrieved from <http://aer.sagepub.com/content/early/2013/09/06/0002831213503031.full.pdf+html>

Teachers were 40% less likely to apply to a school for every 3-mile increment the school was from their home.

New teachers tend to choose schools with high proportions of students of similar race or socioeconomic background.

Harris, D. N., Rutledge, S. A., Ingle, W. K., & Thompson, C. C. (2010). Mix and match: What principals really look for when hiring teachers. *Education*, 5(2), 228–246.

- Principals say they are looking for teachers who understand the types of students that they serve, teachers who are committed to staying at the school, and teachers who “fit” the school.
- Schools and districts tend to prioritize hiring geographically local candidates.

Heimbecker, C., Medina, C., Peterson, P. (2002). Reaching American Indian special/elementary educators through a partnership with a Navajo Nation school district. *Remedial & Special Education*, 23(6), 372–378.

- A preservice program in Arizona is designed for uncertified Navajo special and elementary education preservice students, who work with the local school district and a traditional teacher preparation program.
- The preservice program explicitly prepares the teacher candidates to teach in impoverished rural and remote schools and to work in schools that are culturally and linguistically diverse and inclusive.
- Upon completion, the candidates earn a dual teaching certification in elementary and special education.

Lichtenberger, E. J., White, B. R., & DeAngelis, K. J. (2015). The geography of the new teacher pipeline (IERC 2015-1). Edwardsville, IL: Illinois Education Research Council at Southern Illinois University Edwardsville. Retrieved from <http://files.eric.ed.gov/fulltext/ED558201.pdf>

- About two thirds of new teachers in Illinois work within 20 miles of the high school they attended as students.
- Four out of five new teachers were employed within 30 miles of their high school; nine out of 10 teachers began their career within 60 miles of their high school.
- New teachers tend to choose schools with high proportions of students of similar race or socioeconomic background.

Miller, L. C. (2012). Situating the rural teacher labor market in the broader context: A descriptive analysis of the market dynamics in New York state. *Journal of Research in Rural Education*, 27(13), 1–31.

- Teachers who grew up or attended schools in rural communities are much more likely to become rural teachers, particularly those with low “metrocentricity” or personal identification with the city.
- Teachers who enjoy the rural lifestyle and environment, who are family-oriented, and who feel connected to the community are likely to have higher retention in rural schools.

The Professional Educator Standards Board. (2016). Grow your own teachers report. Retrieved from <http://pathway.pesb.wa.gov/gyoreport>

- This report outlines the need for Grow Your Own teacher programs in Washington state and recommends that high-needs districts:
 - leverage existing Grow Your Own teacher strategies
 - use the high school teaching academy model
 - conduct outreach to underrepresented populations
 - hire pipeline specialists within the Grow Your Own program

Reininger, M. (2012). Hometown disadvantage? It depends on where you’re from: Teachers’ location preferences and the implications for staffing schools. *Educational Evaluation and Policy Analysis*, 34(2), 127–145. Retrieved from

- <https://cepa.stanford.edu/sites/default/files/Reininger%20HA%20EEPA%202012.pdf>
- Nationwide, 60% of teachers worked in schools within 20 miles of where they went to high school.
 - The geographic range of new teachers tends to be more limited than that of similarly aged college graduates in nonteaching occupations.
 - Teachers from urban areas, teachers of color, and teachers with weaker academic qualifications tend to have more geographic limitation in where they work than other teachers.

What evidence of success for Grow Your Own teacher programs exists?

Summary: Little research or literature exists on the success of Grow Your Own programs; most of the information available comes from specific program evaluations, which focus on providing recommendations for continuous improvement, or from anecdotal evidence provided in promotional publications. The available research suggests that many Grow Your Own programs focus on recruiting adults from the local community and face challenges based on the academic preparation of the Grow Your Own candidates. Programs that focus on recruiting high school students to the profession have shown more success. The cost-benefit of these programs for districts is unclear.

Center for Educator Recruitment, Retention and Advancement (CERRA). 2016-2016 Teacher Cadet data. Retrieved from <http://teachercadets.com/research/> and <https://www.teachercadets.com/research.html>

- Teacher Cadets is a high school career and technical education course for seniors that operates as a precollegiate teacher recruitment program and has been in place since the mid-1980s. Students must apply for the course and have a 3.0 grade point average as well as teacher recommendations.
- In 2014–15, 72% of high schools in South Carolina had a Teacher Cadet Program.
- In 2014–15, 2,683 students completed the program; of these, 32.3% were minority students and 21.7% were male. Just under half (48.2%) of programs were offered in at-risk schools.
- After completing the course, 41.1% of Teacher Cadets chose teaching as the career they planned to pursue after college; of these cadets, 23.1% were undecided or had planned to pursue a different career before taking the course.

Hanover Research. (2016). Strategies for addressing critical teacher shortages. Arlington, VA: Author. Retrieved from <http://gssaweb.org/wp-content/uploads/2016/05/Strategies-for-Addressing-Critical-Teacher-Shortages.pdf>

- This brief provides summaries of the Grow Your Own programs in existence at the state and district level and cites available data on their successes or challenges.
- The brief also includes summaries of recruitment and retention strategies connected to compensation.

Hunt, E., Kalmes, L., Haller, A., Hood, L., & Hesbol, K. (2012). Illinois Grow Your Own Teacher Education Initiative: 2011–2012 policy and program recommendations. Normal: Illinois State University, Center for the Study of Education Policy. Retrieved from http://www.ibhe.org/Grants/PDF/GYO/GYO%20Annual%20Report_2012.pdf

- Grow Your Own Illinois enrolled about 700 candidates in its first 2 years; more than half left the program after receiving some funding. Only 68 have graduated from a teacher education program, and more than half of these are teaching full or part time. An additional 71 have been admitted to colleges of education.
- Program applicants tend to be adults from the local communities. Most candidates struggle to pass the Basic Skills Test required for new teachers.
- Only 38% of teachers are being prepared to teach in hard-to-staff positions despite this being the explicit goal of the program.

Skinner, E. A. (2010). Project Nueva Generación and grow your own teachers: Transforming schools and teacher education from the inside out. *Teacher Education Quarterly*, 37(3), 155–167. Retrieved from <http://files.eric.ed.gov/fulltext/EJ902714.pdf>

- During a 9-year period, between 60 and 70 paraprofessionals and community members have pursued teaching degrees with the intention of teaching in the Logan Square neighborhood of Chicago Public Schools. Only nine students have graduated and accepted teaching positions.
- Program applicants tend to be multilingual and of color but have been out of school for several years and struggle with academic performance in the college courses.

Texas Association of School Boards. (2015). District grow-your-own programs bring students home to teach. HR Exchange. Retrieved from <https://www.tasb.org/Services/HR-Services/Hrexchange/2015/November-2015/grow-your-own-lead.aspx>

- More than 200 Texas districts participate in the Ready, Set, Teach! program, which provides work-based learning and internships in teaching for career education students. In one district, the required eighth-grade career exploration course has increased awareness of Ready, Set, Teach! and increased enrollment by more than 20% in 2015.
- Anecdotal evidence shows that some students have become teachers in their home district or nearby schools.

Woodruff, S., Cox, C., & Li, Y. (2014). Annual evaluation of TeachOhio Program: How can we best staff high needs districts in Ohio? Columbus: Ohio Education Research Center. Retrieved from <http://oerc.osu.edu/index.php/annual-evaluation-of-teachohio-program/>

- Since 2012, 794 teacher candidates have enrolled in the program statewide.
- Approximately half of candidates earned a credential in Year 1 of implementation, while only 20% earned a credential in Year 2.
- Candidates provided positive feedback on the support and impact of the program; one key challenge was inconsistent college and university (IHE) engagement across the state.

What motivates teachers to enter or exit the teaching workforce?

Summary: Many teachers join the teaching workforce because they have a desire to serve or because they enjoy working with children; however, teachers often cite burdensome paperwork or workloads and poor compensation as reasons for leaving. New teachers often prefer to teach in districts close to their hometowns and are more likely to apply to schools with student populations that reflect their own backgrounds. Concerns about safety, perceptions of low pay, a lack of opportunities for advancement, and the difficulties facing education in general are barriers to entering the profession. Teachers cite strong principal leadership, supportive colleagues, and autonomy as reasons they stay in the profession.

Ahmad, F. Z., & Boser, U. (2014). *America's leaky pipeline for teachers of color: Getting more teachers of color into the classroom*. Washington, DC: Center for American Progress. Retrieved from <https://www.americanprogress.org/wp-content/uploads/2014/05/TeachersOfColor-report.pdf>

- This report describes the steps along the teacher pipeline where teachers (specifically teachers of color) leave the process. The report also offers concrete policy suggestions for state and district education agencies.

Cannata, M. (2010). Understanding the teacher job search process: Espoused preferences and preferences in use. *Teachers College Record*, 112(12), 2889–2934.

- New teachers have strong preferences to teach in districts that are close to their homes, familiar, and where they will work with colleagues and students with whom they share characteristics.
- Teachers are more likely to apply to schools serving larger numbers of students with whom they share racial/ethnic backgrounds, holding other factors constant.

Guarino, C. M., Santibanez, L., & Daley, G. A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research*, 76(2), 173–208.

The article summarizes literature investigating teacher recruitment and retention. Most notably,

- higher salaries were associated with lower teacher attrition;
- teachers were responsive to salaries outside their districts and their profession;
- in surveys of teachers, self-reported dissatisfaction with salary was associated with higher attrition and decreased commitment to teaching;
- there was tentative evidence that streamlined routes to credentialing provide more incentive to enter teaching than monetary rewards; and
- preservice testing requirements may adversely affect the entry of minority candidates into teaching.
- in a nationwide survey of beginning teachers, 83% of teachers felt that it was essential that a job involves work that one loves to do; 81% indicated that it was essential that a job allows time for family; and 72% said that a job must contribute to society and help others.
- in a survey of recent college graduates who did not pursue teaching, respondents believed that teachers often had to worry about their safety (89%), were seriously underpaid (78%), were often made the scapegoat for the problems facing education (76%), and lacked

opportunities for advancement (69%). Furthermore, when asked what would make them more likely to consider becoming a teacher, respondents identified making a difference in the lives of at-risk kids (70%), if they could become teachers without going back to school (55%), if they could teach students who were well behaved and eager to learn (54%), and if teaching paid more (47%) as key considerations.

Hanover Research. (2016). Strategies for addressing critical teacher shortages. Arlington, VA: Hanover Research. Retrieved from <http://gssaweb.org/wp-content/uploads/2016/05/Strategies-for-Addressing-Critical-Teacher-Shortages.pdf>

- Common teacher-identified priorities influencing where to work include strong principals, skilled and supportive colleagues, adequate resources for teaching, smaller student loads, autonomy, and high-quality professional development. Financial incentives are not sufficient to retain teachers in challenging settings.

McKinsey & Company. (2010). Attracting and retaining top talent in US teaching. Retrieved from <http://www.mckinsey.com/industries/social-sector/our-insights/attracting-and-retaining-top-talent-in-us-teaching>

- Most high-performing students do not want to enter teaching.
- Compensation, especially starting compensation, is one major barrier to attracting students to teaching.
- Other countries are able to attract better candidates through increased pay, prestige, and recruitment of high-performing students.

Scholastic & Bill & Melinda Gates Foundation. (2012). Primary sources 2012: America's teachers on the teaching profession. Seattle, WA: Bill & Melinda Gates Foundation. Retrieved from https://www.scholastic.com/primarysources/pdfs/Gates2012_full.pdf

- American teachers reported that the top three factors impacting teacher retention are “supportive leadership,” “more family involvement in students’ education,” and “more help for students who have behavioral or other problems that interfere with learning” (p. 59).
- Financial factors such as “higher salaries” or “pay tied to teachers’ performance” were ranked lower.
- Despite challenges, 89% of participants reported being *very satisfied* or *satisfied* with their jobs, citing the “love of working with children and helping them grow” as the primary reason for their satisfaction.

Watt, H. M. G., Richardson, P. W., Klusmann, U., Kunter, M., Beyer, B., Trautwein, U., & Baumert, J. (2012). Motivations for choosing teaching as a career: An international comparison using the FIT-Choice scale. *Teaching and Teacher Education*, 28(6), 791–805.

- The Factors That Influence Teaching Choice model (FIT-Choice) predicts that the choice to become a teacher results from:
 - intrinsic value (interest and enjoyment of teaching);
 - self-perceptions of own teaching ability;
 - a desire to work with children and adolescents;

- the desire to make a social contribution;
- an interest in shaping the future of children and adolescents; and
- socialization influences (e.g., positive prior teaching and learning experiences and family influences).

Zascavage, V., Schroeder-Steward, J., Armstrong, P., Marrs-Butler, K., Winterman, K., & Zascavage, M. L. (2008). Considerations for the strategic recruitment of special educators. *Teacher Education Quarterly*, 35(4), 207–221.

- In the study of 112 special education candidates, candidates cited contact with a person with a disability as the most important recruiting activity, and peer support participation (programs such as Best Buddies, in which general education students build relationships with students with special needs) as the second most important activity. For high school students, contact with individuals with disabilities has three likely forms: “classroom interaction in an inclusive setting, contact with a family member or friend having a disability and/or participation in peer support programs such as: PALS, Buddies, Special Olympics, or Circle” (p. 10).
- Individuals who choose teaching after high school are influenced less by parents and teachers and more by previous work with children.

At what point would an intervention be most likely to encourage someone to consider the teaching profession?

Summary: Studies suggest that high school recruitment programs may be more effective than programs targeting adults to move into teaching. Partnerships between K–12 schools and institutions of higher education (IHEs), including community colleges, are important for teacher recruitment. Community colleges are particularly important entry points for minority teachers.

Fenske, R. H., Geranios, C. A., Keller, J. E., & Moore, D. E. (1997). *Early intervention programs. Opening the door to higher education* (ASHE-ERIC Higher Education Report, Vol. 25, No. 6). Washington, DC: The George Washington University, Graduate School of Education and Human Development. Retrieved from <http://files.eric.ed.gov/fulltext/ED412863.pdf>

- Evidence suggests that effective minority recruitment efforts must begin at an early age and should typically engage students as early as middle and secondary school.

Gerdeman, R. D. (2001). ERIC review: The role of community colleges in training tomorrow's school teachers. *Community College Review*, 28(4), 62–76.

- Factors positively associated with the decision to enter teaching fall into six primary categories: (1) family background; (2) previous experiences with teachers; (3) an attraction to the extrinsic aspects of teaching; (4) the desire to work with children and youth; (5) the desire to make a positive contribution to society or community; and (6) love of subject matter or field.
- Community colleges enroll 50% of all undergraduate minority students and serve as important entry points into the higher education pipeline. They are important resources in recruiting new teachers.
- More than 21% of all teacher candidates started their preparation at a community college.

Torres, J., Santos, J., Peck, N. L., & Cortes, L. (2004). *Minority teacher recruitment, development, and retention*. Providence, RI: The Education Alliance at Brown University. Retrieved from <http://files.eric.ed.gov/fulltext/ED484676.pdf>

- High school recruitment programs may be more effective than programs targeting adults to move into teaching.
- Lower self-efficacy and persistence in minority students, along with poorer academic achievement, may contribute to both low recruitment rates and higher attrition rates for minority teachers.
- Financial incentives and community college supports may be especially important and effective in recruiting and supporting minority students.
- Because minority students often have lower academic achievement, the requirement to pass a basic skills or Praxis exam reduces the number of potential minority candidates.

What factors are most powerful in motivating future teachers of color?

Summary: The research shows that the diversity of the teaching workforce is critical for many reasons. Teachers of color who reflect minority students have positive effects on minority student achievement, advanced-level course enrollment, college attendance rate, retention, and school attendance. Though teachers of color also show greater commitment to high-need student populations, they are underrepresented in the teaching workforce, and generally have higher rates of attrition than White teachers. In general, minority students have lower college matriculation rates, reducing the pool of potential teacher candidates. Programs targeting high school minority students to become teachers should consider the nuanced reasons these students may be attracted to teaching, the supports they need to complete a preparation program successfully, and the school culture and support that promote retention.

Albert Shanker Institute. (2015). The state of teacher diversity in American education. Washington, DC: Author. Retrieved from http://www.shankerinstitute.org/sites/shanker/files/The%20State%20of%20Teacher%20Diversity_0.pdf

- This report on diversity in the American teacher workforce highlights current research into the diversity of the teacher workforce, as well as the benefits of increasing diversity and closing the gap in race and cultural background between teachers and students.
- There is a gap between the growing population of minority students and minority teachers. “Minority teachers remain significantly underrepresented relative to the students they serve” (p. 6).
- The report also provides detailed data on teacher diversity in nine cities: Boston, Chicago, Cleveland, Los Angeles, New Orleans, New York, Philadelphia, San Francisco, and Washington, D.C.

Bireda, S., & Chait, R. (2011). Increasing teacher diversity: Strategies to improve the teacher workforce. Washington, DC: Center for American Progress. Retrieved from <http://www.americanprogress.org/issues/education/report/2011/11/09/10636/increasing-teacher-diversity/>

- Although the overall number of minority teachers has increased, turnover rates are significantly higher for minorities than for White teachers. During the 2003–04 school year, for example, about 20% more minority teachers left the field than entered it.
- Low graduation and college-going rates for minority students reduce the potential number of minority teachers who can enter the teaching workforce.
- The report provides a summary of a few minority recruitment programs and Grow Your Own programs that have not been formally evaluated.

Connecticut RESC Alliance. (2011). Best practices in minority teacher recruitment: A literature review. Hartford, CT: Capitol Region Education Council. Retrieved from http://www.crecnow.info/RESCMTR/docs/national_best_practices_in_minority_teacher_recruitment.pdf

- University scholarships, community college paths, and alternative preparation programs are successful in recruiting minority teacher candidates.

- A perception that educator preparation programs fail to include multicultural perspectives in coursework and a lack of mentors with diverse backgrounds are barriers to minority teacher recruitment.
- Middle school and high school programs to recruit minority teachers should work to change “the perceptions that some students have of teaching, provide early fieldwork experiences, mentoring, have a strong partnership with a community college or university, and support students to develop college and career readiness skills” (p. 19).

Dee, T. (2004). Teachers, race, and student achievement in a randomized experiment. *Review of Economics and Statistics*, 86(1), 195–210. Retrieved from http://media.hoover.org/sites/default/files/documents/ednext20042unabridged_dee.pdf

- The racial pairing of teachers and students significantly increased the reading and math achievement scores of African-American students by 3 to 6 percentage points.

Exton, V. N. (2011). Creating an education pipeline: Training American Indian teachers. *Journal of Indigenous Research*, 1(1), 1–3. Retrieved from <http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1002&context=kicjir>

- The researcher found six factors contributed to teacher development and “identity”: (1) giving back to American Indian communities; (2) serving American Indian students; (3) empowerment as American Indian teachers; (4) cohort-based peer support; (5) content-area expertise preparation; and (6) other teachers as role models.

National Education Association. (2017). *NEA and teacher recruitment: An overview*. Retrieved from <http://www.nea.org/home/29031.htm>

- Many of the most capable minority students are drawn to other professional fields that are perceived to be associated with higher salaries, social value, and prestige than education is.

Partee, G. L. (2014). *Retaining teachers of color in our public schools: A critical need for action*. Washington, DC: Center for American Progress. Retrieved from <https://cdn.americanprogress.org/wp-content/uploads/2014/06/Partee-TeachersOfColor-report2.pdf>

- “Teachers of color are more likely to work and remain in high-poverty, hard-to-staff urban schools and districts than their white counterparts; in fact, they often consider it an important duty to do so. What’s more, teachers of color are known to be personally committed to the success of children of color, and they affect a wide range of student academic outcomes” (p. 2).
- The presence of teachers of color in the classroom relates to positive outcomes in the areas of advanced-level course enrollment, college attendance rate, retention, school attendance, and standardized test score achievement.

Pitts, D. W. (2007). Representative bureaucracy, ethnicity, and public schools: Examining the link between representation and performance. *Administration & Society*, 39(4), 497–526. Retrieved from <http://aas.sagepub.com/content/39/4/497.full.pdf+html>

- Students of color had a significantly higher passing rate for high school graduation exams in districts where the racial/ethnic distribution of the teaching population reflected that of the student population.

Torres, J., Santos, J., Peck, N. L., & Cortes, L. (2004). Minority teacher recruitment, development, and retention. Providence, RI: The Education Alliance at Brown University. Retrieved from <http://files.eric.ed.gov/fulltext/ED484676.pdf>

- Minority candidates may need to feel cultural acceptance and perceive a positive socioeconomic status associated with teaching to enter the teaching workforce.
- Minority teachers may be attracted to teaching for service, social justice, or community engagement reasons.
- Minority candidates may be disinclined to become teachers if they do not perceive teaching to have social value or acceptance; some studies have indicated that there is less prestige associated with teaching in highly integrated environments.

What factors are most powerful in motivating future teachers in rural areas?

Summary: Grow Your Own teacher programs are promising solutions for hard-to-staff rural districts because the teacher candidates are accustomed to a rural lifestyle and have community ties. Emphasizing that teacher candidates will have the opportunity to serve students from the same community may be a successful recruitment strategy.

Davis, M. S. (2002). Teacher retention and small rural school districts in Montana. *Rural Educator*, 24(2), 45–52. Retrieved from <http://eric.ed.gov/?id=EJ665168>

- A survey of 126 elementary teachers in small districts found that proximity to family or home and rural background were influential in successful recruitment.
- Teachers were motivated to continue teaching in rural schools when there were relationships with students and positive community factors.

Goodpaster, K. P. S., Adedokun, O. A., & Weaver, G. C. (2012). Teachers' perceptions of rural STEM teaching: Implications for rural teacher retention. *Rural Educator*, 33(3), 9–22. Retrieved from <http://eric.ed.gov/?id=EJ987621>

- Retention was found to be related to three broad themes:
 - teachers' strong interpersonal relationships and community ties in the rural communities;
 - school factors such as positive school environment, contact between teachers and administrators, interpersonal relationships with students, and flexibility within the school; and
 - professional factors such as opportunities to teach intellectually stimulating (science) subjects, ability to connect science topics to rural life, professional development opportunities, and a sense of job satisfaction and job security.

Hammer, P., Hughes, G., McClure, C., Reeve, C., & Salgado, D. (2005). Rural teacher recruitment and retention practices: A review of the research literature, national survey of rural superintendents, and case studies of programs in Virginia. Charleston, WV: Appalachia Educational Laboratories at Edvantia. Retrieved from <https://eric.ed.gov/?id=ED489143>

- Teachers are more likely to stay in their position when they feel rooted in the community in which they teach and consider it their home.
- Grow Your Own initiatives in rural areas succeed because participants are more likely than teachers from other pathways to want to teach in a rural community. Districts considering a Grow Your Own approach should target subject areas with teacher shortages.

Huysman, J. T. (2008). Rural teacher satisfaction: An analysis of beliefs and attitudes of rural teachers' job satisfaction. *Rural Educator*, 29(2), 31–38. Retrieved from <http://eric.ed.gov/?id=EJ869291>

- This study found a relationship between job satisfaction and teacher retention. Intrinsic satisfaction factors that ranked the highest were security, activity, social service, variety, and ability utilization. Extrinsic satisfaction factors that ranked the highest were recognition, organizational policies, opportunities for advancement, coworkers, and compensation.

- Frustration among rural teachers often arose from conflicting professional and social role expectations, perceived coalitions within schools that possessed undue influence and power, a perception of lack of appreciation and respect, and unhealthy competition between the homegrown and transplanted faculty.

Lazarev, V., Toby, M., Zacamy, J., Lin, L., & Newman, D. (2017). Indicators of successful teacher recruitment and retention in Oklahoma rural school districts. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. Retrieved from https://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/REL_2018275.pdf

- Male teachers with higher postsecondary degrees and those with more teaching experience are harder to recruit and retain in rural schools.
- Higher total compensation and increased job responsibilities were positively associated with successful recruitment and retention.
- Increased job responsibilities negatively influence retention. This problem can be overcome with higher pay.
- Few community characteristics were found to be associated with successful recruitment of teachers in rural schools.

Schwartzbeck, T. D., Prince, C. D., Redfield, D., Morris, H., & Hammer, P. (2003). *How are rural districts meeting the teacher quality requirements of No Child Left Behind*. Charleston, VA: Appalachia Educational Laboratory.

- According to rural superintendents, the largest obstacles to attracting and retaining teachers were low salaries, social isolation, and geographical isolation of rural districts.
- Sundeen, T. H., & Wienke, W. D. (2009). A model for recruiting and preparing new rural special educators: Mining an untapped potential. *Rural Special Education Quarterly*, 28, 3–10. Retrieved from <https://www.questia.com/library/journal/1P3-1702201901/a-model-for-recruiting-and-preparing-new-rural-special>
- Identify university students who hold undergraduate degrees in other fields than teaching. In particular, students with a background in psychology and biology were a good fit with special education. Another reason to target these students is that most psychology students would not be accepted into graduate studies and may be looking for other opportunities.
- E-mail recruitment campaigns proved to be ineffective unless the sender was known university department.
- Additional components of the teacher preparation model included expedited enrollment opportunities, flexible times to take the courses, cohort structure, an assigned faculty member as an advisor or mentor, additional training to pass state certifications, GRE preparation assistance, and experience with persons with disabilities.
- Graduates who previously lived in rural locations took positions in rural schools.