

To Higher Ed. And Back Again:
Increasing Access to Higher Education for the Rural United States

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Jacob Hall

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On my honor as a University Student, I have neither given nor received unauthorized aid on
this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

Advisor

Caitlin D. Wylie, Department of Engineering and Society

Introduction

Education is one of the greatest predictors for success in life. Only 29% of rural residents aged 18 to 24 are enrolled in higher education, which is significantly less than the 48% in urban and 42% in suburban areas (National Center for Education Statistics, 2022). This disparity highlights a sociotechnical problem: systematic barriers in rural education limit college enrollment, ultimately restricting economic mobility and social advancement for rural populations. This issue is particularly significant because higher education is increasingly necessary for financial stability. College graduates earn significantly higher wages on average than those with only a high school diploma and experience lower unemployment rates (Carnevale et al., 2020). Without equitable access to higher education, rural communities risk falling further behind in economic development, exacerbating cycles of poverty and limiting opportunities for future generations. Additionally, as rural areas diversify, new challenges emerge for minority students who often face unique obstacles in the college admissions process, further widening the gap in educational attainment.

To analyze this problem, this paper applies a post-positivist approach to critically examine the structures of power that contribute to educational inequality in rural settings, particularly regarding economic resources, demographic shifts, and institutional limitations. The post-positivist research methodology uses a combination of qualitative and quantitative research tools while acknowledging that an objective truth cannot be drawn. The analysis will highlight how systemic barriers intersect with policy and educational practices to shape rural students' access to higher education. The central research question guiding this paper is: What are the best ways to address the gap in higher education enrollment in rural communities? The following sections explore three primary barriers contributing to lower college enrollment rates in rural areas and propose solutions to mitigate them. First, the paper discusses how financial constraints and a lack of family guidance impede rural students' ability to navigate college pathways. Second, it examines how the increasing diversity in rural communities, particularly among English Second Language (ESL) learners, necessitates more responsive educational policies. Finally, it addresses the impact of teacher shortages and limited college-preparatory resources on rural students' academic readiness.

Financial Resources & Family Guidance

The monetary cost of college and lack of family guidance in rural communities is a large contributor to the lack of access to higher education. An annual report by the Gallup and Lumina foundation includes responses from over 14,000 U.S. adults, aged 18 to 59 who do

not have a college degree and fall into one of the following groups – currently enrolled students; adults who were previously enrolled in a certificate, certification, associate degree, or bachelor’s degree program but stopped out of their program before completing it; and adults who never enrolled in any type of education after high school (Carrasco, 2024). This report states that 66% of adults without a college degree said that cost of college, including tuition, room and board, was an important factor in their decision not to go to college. Additionally, 53% percent of adults said financial aid or scholarships was an important factor on whether they would continue in their program.

Generally, it is more difficult to find a high paying job in the rural United States (U.S.) compared to urban and suburban regions (Dumont, 2024). Thus, families in rural areas often have little to no higher education in addition to limited financial resources. This is important because one of the largest barriers to college access in the US is the cost. The average price tag of attending a 4 year college is roughly \$27,000 per year. This does not account for the opportunity cost of working full-time at an average annual salary of roughly \$46,000 per year. In total, the opportunity cost of college can easily be more than hundreds of thousands of dollars (Hanson 2024). Most college students from rural areas with limited familial financial support are forced to take out loans to pay for college. Often these loans only cover tuition, room and board, and other required fees. Groceries, transportation, and other necessities often need to be paid out of pocket, forcing these students to work part-time jobs during college. This reduces the amount of time students can spend studying and/or socializing with friends, leading to worse grades and college experience. Worse grades often lead to worse job prospects.

Existing solutions to limited financial resources for college are scholarships and loans. Scholarships are often merit, income, and/or geographically based. Rural students are often at a disadvantage when applying for merit-based scholarships. Candidate pools for merit-based scholarships are based towards financially well-off and/or 2nd generation or greater college students. These candidates often have access to better teachers, classes, and extracurriculars outside of school hours relative to the average rural student. If a rural student’s drive to succeed and/or their relative past success to their rural peers is higher than that of the average candidate pool for merit-based scholarships, their merit may not shine through. However, rural students may be at an advantage for income based and geographic scholarships. Rural students are more likely to qualify for Federally Subsidized loans in which the federal government pays for the interest while the students are in school. However, it is unlikely that federal loans will pay for the total cost of attendance. This forces rural students to take out private loans, which often have high rates of interest. This interest is not insignificant by any means. The average college student pays over \$2,600 in interest per year and the average borrower spends over 20 years paying off their

loans (Hanson, 2024). For a student working part-time each week for a likely near-minimum wage in addition to full time school work, a significant portion of their income will go to just paying interest on their loans.

A possible, cost-effective solution would be federally subsidized, merit-based scholarships for rural students interested in pursuing high return on investment (ROI) careers. At face value, full-merit based scholarships for a large number of rural students would be an extremely costly measure for the US government to implement. There are a large number of high ROI careers including but not limited to engineering, health services, manufacturing, and agriculture. There is an ever growing demand for individuals with the qualifications to work in these industries. In addition, having a larger population with these qualifications serves in the best interest of the US for national power and economical reasons. Direct Science, Technology, Engineering, and/or Math (STEM) employment attributed 39% of the Gross Domestic Product, but accounted for only 33% of the U.S. workforce in 2017. Accounting for indirect and induced employment by STEM companies, the total economic impact of STEM on the GDP is a whopping 69.1% (*STEM AND THE AMERICAN WORKFORCE...*, 2020). To mitigate losses on the US's investment on the students, grades and employment records could be monitored and scholarship funds could be reduced if standards are not met.

The cost concerns of college highlighted previously assume that a rural student even realizes that college is an opportunity. Many rural students would be first-generation college goers due to lower rate of college-degree holding parents in rural areas (O'Neal & Perkins, 2021). As such, it is unlikely that they would have pressures/encouragement from their family to go. According to a study conducted by the University of New Hampshire in 2016, 14% of rural high schools lack a school counselor, much less a dedicated college counselor (Gagnon et al., 2016). If college guidance counselors and family pressures to attend college don't exist, then it is up to other environmental pressures to promote college attendance, which are highly unlikely. A study conducted in 2013 estimated that adding a single guidance counselor to existing schools increases the percentage of four-year college-goers by approximately 10% or roughly 10 students per 100 graduates (Hurwitz & Howell, 2013). Guidance counselors present at the high schools often play a pivotal role in students postsecondary career paths (Gilfillan, 2017). The median pay for School and Career Counselors and Advisors was \$61,710 per year. This suggests that increasing funding in rural high schools to hire additional guidance counselors is a very cost-effective strategy for improving rates of higher education pursuit.

Rural Diversification

As rural communities in the United States undergo demographic shifts, the increasing presence of minority students, many of whom are English Second Language (ESL) learners, presents distinct educational challenges that necessitate responsive policy interventions (Ruiz-De -Velasco et al., 2000). Historically, rural schools have struggled to provide high quality education to non-native English speakers (Coady et al., 2023). Hence, the diversification of these regions requires a reexamination of educational structures that may not be equipped to support linguistically and culturally diverse students. Without intentional policy adjustments, these students face systemic barriers that can limit their access to higher education.

Recent demographic data reinforces the urgency of these concerns. A study published in *Rural Special Education Quarterly* (2018) found that from 1999–2000 to 2014–2015, rural school districts saw declining overall enrollments but notable increases in minority, economically disadvantaged, and English learner (EL) populations. This demographic shift complicates the educational landscape, as these students often contend with compounded barriers—limited financial resources, language difficulties, and fewer college preparatory opportunities. These challenges are particularly pronounced in regions like the Midwest, where EL student populations have surged despite persistent resource constraints (Comparative Analysis, 2018). Without proactive policy responses, these students are at greater risk of being left behind in the college admissions process.

One of the key challenges ESL learners in rural schools face is a lack of adequately trained educators. According to research by the National Center for Education Statistics (NCES), rural districts often struggle to recruit and retain qualified ESL teachers, leaving many students without the specialized support they need (NCES, 2022). This shortage means that general education teachers, who may not have formal training in second-language acquisition, are left to fill the gap, often without sufficient resources or professional development. The lack of instructional support directly impacts these students' academic performance, making it more difficult for them to achieve the standardized testing benchmarks necessary for college admission. This systemic shortfall underscores the necessity for policy reforms aimed at increasing incentives for ESL teacher recruitment and retention in rural areas.

Moreover, language barriers extend beyond the classroom and into college readiness programs. Studies indicate that rural ESL students frequently receive inadequate guidance on college applications and financial aid due to linguistic and cultural mismatches between students and school counselors (Gándara & Mordechay, 2017). Unlike their urban and suburban counterparts, who may have access to bilingual college advisors and culturally relevant outreach programs, rural minority students often lack such

resources (Darling-Hammond, 2001). This results in lower rates of FAFSA completion, college entrance exam participation, and, ultimately, postsecondary enrollment. The findings from *Educational Researcher* (2020) further emphasize that rural EL students face a significant disadvantage because of the lack of dedicated research and resources aimed at understanding their specific needs. Coady (2020) argues that a national agenda is necessary to systematically address these challenges, calling for an interdisciplinary research approach to develop effective instructional strategies, teacher professional development programs, and better engagement with non-English-speaking families.

The challenges facing rural districts extend beyond language instruction. Johnson, Ohlson, and Shope (2020) highlight the broader implications of demographic changes in rural education, noting that rural schools must not only adjust instructional strategies but also examine operational policies that shape resource allocation and community engagement. Their study underscores how inadequate financial and human capital hinders efforts to support minority and ESL students effectively. A critical aspect of addressing these barriers is recognizing the historical overrepresentation of diverse student populations in special education programs due to misdiagnoses and insufficient teacher training (Shifrer et al., 2011). Schools must adopt more culturally and linguistically responsive assessment methods to ensure that ESL students receive appropriate educational support rather than being erroneously placed in special education programs.

Critics might argue that rural schools simply lack the budget to implement such reforms. However, federal and state funding structures already allocate supplemental resources to support marginalized students, including Title III funding under the Every Student Succeeds Act (ESSA). The issue, then, is not solely about availability but about the equitable distribution and utilization of these funds. Studies have shown that rural districts often receive less per-student funding than urban counterparts, despite facing unique logistical challenges, such as student transportation and dispersed populations (Johnson, Showalter, Klein, & Lester, 2014). Additionally, Sindelar et al. (2018) highlight that rural schools struggling with special education teacher shortages have adopted innovative solutions, such as distance technology and alternative credentialing programs, to address their challenges. A similar approach could be applied to ESL education, leveraging remote learning resources and technology-driven professional development programs to expand rural educators' capacity to serve EL students effectively.

Addressing these disparities requires targeted and cost-effective interventions. One approach is increasing investment in bilingual educator training programs. The cost of ESL teacher certification programs varies significantly depending on the institution, program length, and format. On average, these programs can range from \$1,000 to \$5,000, with

some more intensive programs costing up to \$10,000. Implementing comprehensive ESL certification programs for rural teachers could significantly reduce the achievement gap by providing EL students with specialized instruction.

Additionally, expanding access to distance learning technology for teacher training and student instruction is a relatively cost-effective solution. For example, Lincoln Land Community College enhanced its distance learning capabilities with the aid of a \$448,000 grant from the U.S. Department of Agriculture, allowing the college to purchase advanced audio and visual equipment to expand instruction to rural campuses and offer courses at high schools as part of the school's dual credit program (McDaniel-Ogletree, 2025). While this example pertains to a community college, a district-wide implementation of virtual ESL instruction platforms in K-12 settings could be scaled accordingly, benefiting thousands of students by providing consistent, high-quality language support.

Another effective strategy is establishing bilingual community liaisons to bridge the gap between schools and non-English-speaking families. While specific salary data for these positions varies by district and region, the Omaha Public Schools, for example, employ Bilingual Liaisons as integral parts of the school staff to support communication with families and ensure student needs are addressed (Colón, 2019). These positions ensure that parents receive the necessary information on college readiness, financial aid, and school engagement opportunities.

Finally, implementing targeted college readiness initiatives, such as bilingual FAFSA workshops, SAT/ACT prep programs, and mentorship networks, could yield substantial long-term benefits. Many such non-profit programs and organizations already exist but are not integrated into school systems (NetWerk, 2023). If school systems collaborated more with these programs, college readiness and enrollment could increase substantially.

Teacher & College Prep. Resources

Preparing rural students for success in college is essential for increasing their access to higher education. Many high school students hesitate to pursue higher education due to a perceived lack of readiness, which often stems from limited academic rigor. Addressing this issue requires a multifaceted approach addressing the shortage of teachers and access to college preparatory resources.

Teacher Shortages

Teachers play a crucial role in the academic development of students. However, a significant teacher shortage currently impacts the U.S. particularly in low income and rural

areas. Rural teachers often earn lower salaries compared to the urban and suburban counterparts. In addition, lifestyle factors such as geographic isolation and limited professional development opportunities contribute to high turnover rates (Ingersoll and Tran, 2023). The traditional route to becoming a certified teacher requires a bachelor's degree and a teaching degree/license, both demanding significant financial and time investments. For many potential educators, the cost-benefit ratio of entering the profession is unfavorable. This effect is exacerbated by the uncertainty of job security in rural districts. The Economic Policy Institute also highlights that, when factoring in teaching credentials, an ever-reducing number of teachers meet the education, experience, and certification requirements associated with being highly qualified (Garcia & Weiss, 2019). To address the shortage of qualified educators in rural areas, I propose incentivizing rural teaching positions via monetary and security incentives with supplemental remote/hybrid teaching models.

Incentivizing rural teaching positions via monetary incentives is a quite broad solution to the rural teacher shortage. Policies such as student loan forgiveness programs and competitive salary adjustments can make teaching in rural areas more attractive. A few programs of this nature already exist. The Teacher Loan Forgiveness program was established in 1998 under the Department of Education with a maximum forgiveness amount of \$17,500 (*Teacher Loan Forgiveness*, 2018). The TEACH Grant Program, a federal teaching grant program established in 2007, awards roughly \$4,000 per year (*Federal Student Aid*, 2020). Both federal programs have eligibility requirements that the teacher be employed in a high need area, whether that is based on average income level for the students in the schools or subject area (math, science, language, etc.). Thus, the current total monetary incentives in terms of college costs for teachers in high need areas is around \$33,500 for a 4-year bachelors degree, which generally have an opportunity-cost of several hundreds of thousands of dollars. These programs have been around for a decade or two and the supply of teachers continues to decrease, indicating that the current monetary incentive structure is not enough.

Many government organizations employ an internship program for a direct pipeline to full-time employment at their organizations post-graduate. They typically offer paid internships/part-time employment during school in addition to sometimes covering tuition costs on the condition that they work in that organization post-graduation. One particularly great example of such a program is the National Aeronautics & Space Administration's (NASA) Pathways Internship Program. For many NASA centers, a significant percentage of their new hires come from this program. A similar program could be established at the federal or state level for departments of education. These programs should have similar requirements to the TEACH grants, in that to qualify you need to teach or plan to teach in a

high-need field and/or low-income area. These programs typically have a minimum number of service hours needed during college to be eligible for full-time employment after. This means that a student would work part-time during the school year gaining valuable experience. In addition, participants in these programs can opt into a pay-for-service program in which the organization pays for the student's college tuition and fees for a number of semesters in exchange for that student working in the organization post-graduation for a number of years. This program would effectively reduce the opportunity-cost of degree requirements while ensuring that the future teachers workforce is highly qualified due to real-world experience. If this program is established, a wave of promotion for it across high-schools and colleges could provide the impetus needed to eliminate the teacher shortage.

Although the internship program above is a good solution, it could still leave gaps in the teacher supply/demand. One way to supplement the teacher supply, if needed, is to establish remote/hybrid teaching models for teachers. This would allow teachers not living near rural high schools to teach these students virtually. However, exclusively remote instruction can have several drawbacks. In-person instruction allows for near-immediate interaction with instructors, peer-to-peer interaction, and improved retention rates. Topics that are predominantly informational and require less hand-on instruction are good candidates for remote teacher supplementation.

College Preparatory Resources

Access to college preparatory resources is a key factor in motivating students to pursue higher education. Research indicates that students who have access to college-level courses and application preparation resources are more likely to enroll in college (Chatterji et al., 2021). However, many rural schools do not offer Advanced Placement (AP) courses or dual-enrollment programs with local colleges, making it difficult for students to experience college-level rigor before graduation. Without proper preparation, students may struggle with standardized tests such as the SAT, reducing their competitiveness in college admissions, in addition to not feeling 'ready' to go to college in general. The limited availability of college readiness programs in rural areas further exacerbates the challenges faced by these students. To address these challenges, several solutions can be implemented:

- **Dual-Enrollment Programs with Local Community Colleges:** These programs allow high school students to take college-level courses and earn credits before graduating. However, participation requires adequate preparation, meaning students must begin advanced coursework as early as middle school. A study on rural students' college choice highlights how dual

enrollment courses played key roles within the college-choice processes of these students (Cain, 2021).

- **Increased Availability of SAT Preparation Resources:** Providing free or low-cost SAT prep courses can help students improve their scores and reinforce key academic concepts such as math and reading comprehension. Initiatives like the Universal Free Application for Federal Student Aid (FAFSA) Challenge in Michigan aim to boost FAFSA completion rates among high school seniors, connecting them with financial aid and increasing postsecondary education enrollment (*Universal FAFSA Challenge*, 2023).
- **Online AP and Dual-Enrollment Courses:** High schools can collaborate with virtual learning platforms that offer AP and dual-enrollment courses. For example, Virtual Virginia provides a range of online courses, allowing students in rural areas to access college-level coursework (*How Virtual Virginia Works*, 2025). In this model, high schools pay a small fee to virtual education providers, who in turn hire independent educators to deliver college-level instruction.

Conclusion

This paper has demonstrated that financial constraints, demographic shifts, and institutional limitations are key factors contributing to the lower rates of college enrollment in rural communities. Addressing these challenges requires a combination of targeted financial support, culturally responsive educational policies, and systemic improvements in teacher recruitment and college-preparatory resources. Without these interventions, rural students will continue to face significant obstacles in accessing higher education, reinforcing long-term socioeconomic disparities.

Beyond the immediate benefits of increasing college enrollment rates, addressing this issue has broader implications. Expanding higher education access in rural areas can lead to improved economic development, higher civic engagement, and a more diverse and skilled workforce that benefits both rural and urban economies. Moreover, investing in rural education can create a more equitable society where geographic location does not determine one's educational and professional opportunities.

While this paper has examined several critical barriers and solutions, it also raises important questions for future research. What role can emerging technologies, such as Artificial Intelligence-enabled chat bots, play in addressing the educational resource gap in rural areas? Additionally, how do varying state and federal policies impact the success of rural students in postsecondary education? Addressing these questions will be crucial in

developing more comprehensive and effective strategies for closing the rural-urban education divide.

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