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Place Matters:

A Closer Look at Education Deserts

PLACE MATTERS: A Closer Look at Education Deserts

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When selecting a college, students must make hard decisions about where to enroll. They are expected to use consumer information tools and shop around for a college that delivers the best value, which can be based on a variety of factors like its cost, selectivity, graduation rates, and more. But for most students the decision is simple: they go to whatever college is nearby. This may be surprising given the pop culture portrayal of students traveling far away for college, but in reality two in every three undergraduates—both two- and four-year—stay within just 25 miles of their home.¹ In part, this is a success story of American higher education where the sheer number and location of colleges puts higher education within reach for millions of American students each year. But not all places are so fortunate, as there are a number of “education deserts” with no colleges nearby. This geographic inequality matters because colleges and universities play a vital role in promoting upward mobility in America, yet it is often overlooked in conversations around college access and opportunity.² However, research shows that place matters in education and has lasting consequences on educational opportunities. This report outlines the key ideas, data analysis, and research findings on the geography of college opportunity in order to help advance local, state, and national policy conversations and ensure that all students have access to a high-quality college of their choice.

The Geography of College Opportunity

Too often, research on college opportunity focuses largely on the steps students must take to get into college. Students may need to take the right sequence of college-prep courses, take a standardized test, submit an application for admissions, file the Free Application for Federal Student Aid (FAFSA), or even consult with counselors/advisors.³ There are many steps in the process, and researchers, policymakers, and education leaders are right to find ways to simplify and fix kinks along the way. But what happens when a prospective student takes all the right steps, only to find there are no colleges nearby? Fixing the college-going *process* will not fix the fact that one lives in an education desert.

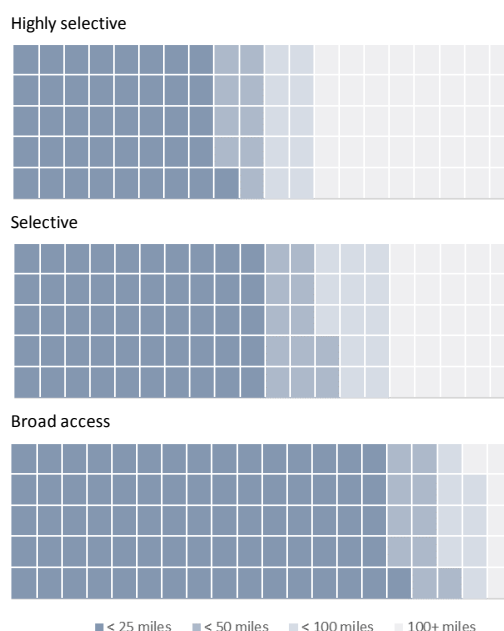
Today’s college students are more diverse: 37% are 25 or older; 24% are parents; and 64% work while attending school.⁴ Juggling classes with work and family commitments makes it hard—both in terms of time and money—to travel far distances for college. Simply having a college nearby helps people invest in their own education, especially when these colleges are public broad-access institutions (which are defined as institutions that admit a least 80% of applicants based on admissions data from the U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS)).⁵ For most students, the further away one lives from a college,

the less likely they are to attend.⁶ The exception is for white or wealthy students who are most mobile and whose college-going decisions are least affected by distance.⁷ But for students from lower-income families and students of color, college choices are highly localized decisions. This would not be a problem if all colleges had equal resources and outcomes, where students received the same quality education no matter where they enrolled. Because of significant inequalities in institutional resources and wide variation in quality, local broad-access colleges may deliver fewer opportunities to students who are already underrepresented in higher education. Constrained options also creates a tracking system where underrepresented students have limited academic offerings, which in turn are likely to galvanize further educational inequality.

What are Education Deserts?

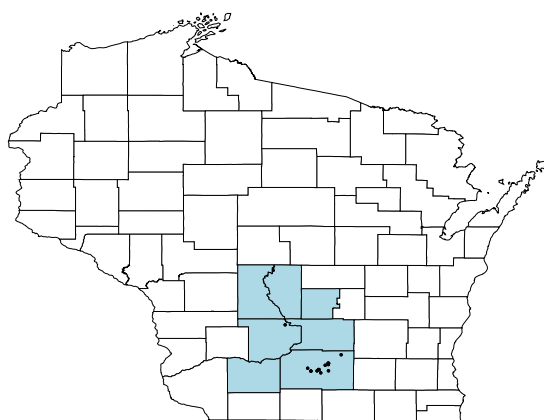
An education desert is defined as a local area where there are either *zero* or *only one* public broad-access colleges nearby. While there is no hard rule on what counts as broad-access, the 80% threshold referenced above has been established by some of the field’s leading experts on broad-access institutions.⁸ The majority of undergraduates – and a disproportionate share of low-income students and students of color – enroll in broad-access institutions every year. As shown in the chart below, broad-access institutions tend to draw students from nearby: the vast majority coming from within 25 or 50 miles from home. Here, “highly selective” are those institutions admitting fewer than 50% of applicants and “selective” institutions admit between 50% and 80%.

Share of Undergraduate Enrollment by Selectivity and Distance from Home



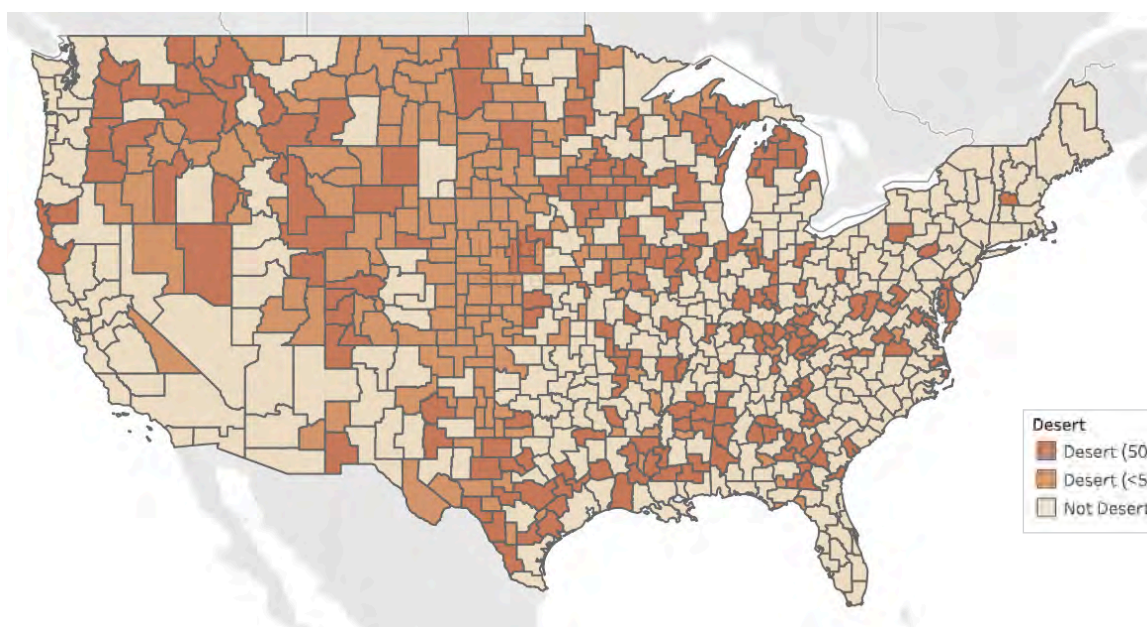
To define a “local area,” my research uses the U.S. Department of Agriculture’s commuting zones that cluster counties together based on commuting patterns and shared economic activity.⁹ For example, the seven-county area surrounding Madison, Wisconsin, is clustered into a single commuting zone consisting of nearly 750,000 people. While 550,000 of these people live in Dane County where Madison is located, the commuting zone accounts for the surrounding areas. If a college is located in any one of these seven counties, then it is considered within the local area of people living in this commuting zone.

*Commuting Zone Area surrounding Madison, Wisconsin
(Colleges are denoted as dots.)*



The map below shows all education deserts in the continental U.S. – these are places with **zero or only one** public broad-access college nearby. Larger commuting zones with populations greater than 50,000 are shaded in dark tan and smaller zones (fewer than 50,000) are in light tan.

Education Deserts by Commuting Zone

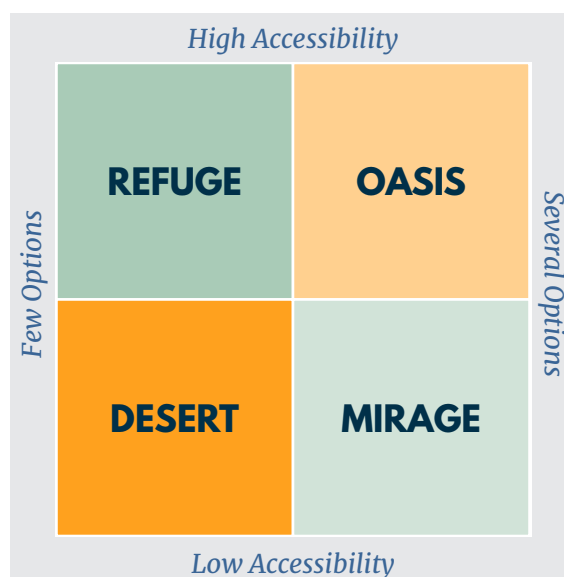


Of the nation's 709 commuting zones, 392 are classified as education deserts, and these areas are home to approximately 35 million people (about 10% of the US population). These communities are spread across the country, with many concentrated in rural areas of low population density: 188 education deserts are in small commuting zones (light tan) where the average population is approximately 26,000. However, education deserts are not just isolated to small rural counties as one might predict. In fact, 204 education deserts are in larger commuting zones (dark tan) where the average population is nearly 180,000. This map illustrates how local higher education marketplaces vary widely across the country, making the issue of geographic deserts a concern for college-going students in all corners of the United States. To fully understand and address deeply rooted educational inequalities, we need to better understand the local marketplaces in which students make college choices – education deserts are just a starting point to this conversation.

Beyond Education Deserts

The map above shows places with the absolute fewest options nearby, but this is not the only way we should think about the role of geography in shaping educational opportunity. While some places may be *deserts* with no options available, others may be *oases* where opportunities are plentiful. Still other places may be a *refuge* with minimal opportunities, while others may be *mirages* where opportunities appear plentiful but are not. Researchers across the social sciences use these geographic metaphors to describe local conditions on a wide range of important social issues including health, nutrition, poverty, and education.¹⁰ Professor Casey Boland and I built on this work by developing the following typology of local higher education markets, which may be useful in guiding and framing conversations around college access and opportunity, as well as policies that can most effectively improve it.

Typology of Local Higher Education Markets



In this typology, we contrast the number of public college options on the horizontal axis (from few to several). Places with the fewest public options will be further to the left, while those with the most will be further to the right. We cross this with the degree of accessibility as measured by college selectivity, where the top quadrants have more broad-access institutions and the bottom have the fewest. There are many other ways we could describe accessibility, including price, student loan debt, or even student outcomes at a college. But for the purposes of this typology we are interested in the entry-point to college, so we focus on the link between having a public option nearby and making sure that public option is broadly accessible.

Deserts are located in the bottom-left quadrant, where they have few to no public broad-access alternatives. Moving to the top-left quadrant, these are communities where there are few alternatives, but there is at least one public broad-access alternative from which to choose. We can think of this as a **refuge** where the area's only public broad-access colleges are likely to be a destination for students looking for affordable opportunities for upward mobility. Moving to the top-right are communities where there are ample choices nearby and these institutions are all broadly accessible – an **oasis** where students have many college options. Below in the bottom-right are places where there are several alternatives nearby but none or very few are broad-access – a **mirage** that gives the appearance of opportunities but colleges are too selective to enroll many local students.

By our estimates, this new typology classifies 172 commuting zones (24% of the total) as deserts. For example, the Storm Lake, Iowa, commuting zone in northwest Iowa has a population over 72,000 but—according to the U.S. Department of Education's College Navigator—only has two colleges in a 25 mile radius: Buena Vista University and Faust Institute of Cosmetology. Both are small private colleges and no public option is nearby. Northwest Iowa Community College is the closest public option, but it is about 50 miles away. We classify 224 (32% of total) commuting zones as refuges, where a single public broad-access institution is the only public option. The initial definition of a desert includes these communities because they are still the most geographically isolated. For example, the Uvalde-Eagle Pass commuting zone in southwest Texas is an example of a refuge, where Southwest Texas Junior College is the **only** public option for the 100,000 people living in this area. Drive about 300 miles north to the similarly-sized Odessa, Texas, commuting zone and one will find two public community colleges and one public broad-access four-year university nearby – an education **oasis** by comparison. We estimate 189 commuting zones (27% of total) in the oasis category. Finally, we could turn to Charlotte, North Carolina, for an example of an educational **mirage** where there are several colleges nearby but the only broad-access public options are community colleges. The University of North Carolina at Charlotte is the only public four-year campus around, and it admits only 2 of 3 applicants, making it a moderately selective institution. We estimate 124 commuting zones (17% of total) are educational mirages.

How Geography and Inequality Intersect

These brief examples highlight that local options vary considerably across the country, and any effort to expand college access and opportunity must be in tune with the local context in which choices are made—doing so may reveal geography plays a more central role in educational inequality than expected. Geography may even play a role in other important factors related to educational inequality like graduation rates, student loan debt, and choice of majors. If, for example, a college located in an education desert does not have resources to reduce students' need to borrow—yet it enrolls high shares of low-income students—then it may result in high student loan debt. Similarly, if colleges operating in deserts do not have adequate capacity to serve students, then they may have low graduation rates. Colleges operating in education deserts may also provide a very limited range of academic programs, as some researchers have found in Virginia, so further research is needed to examine how geography is linked to various accountability outcomes, financial resources, and academic offerings.¹¹ Taken together, these examples highlight the need to improve the local opportunity structure, rather than simply expecting students to move far away from home to find opportunity.

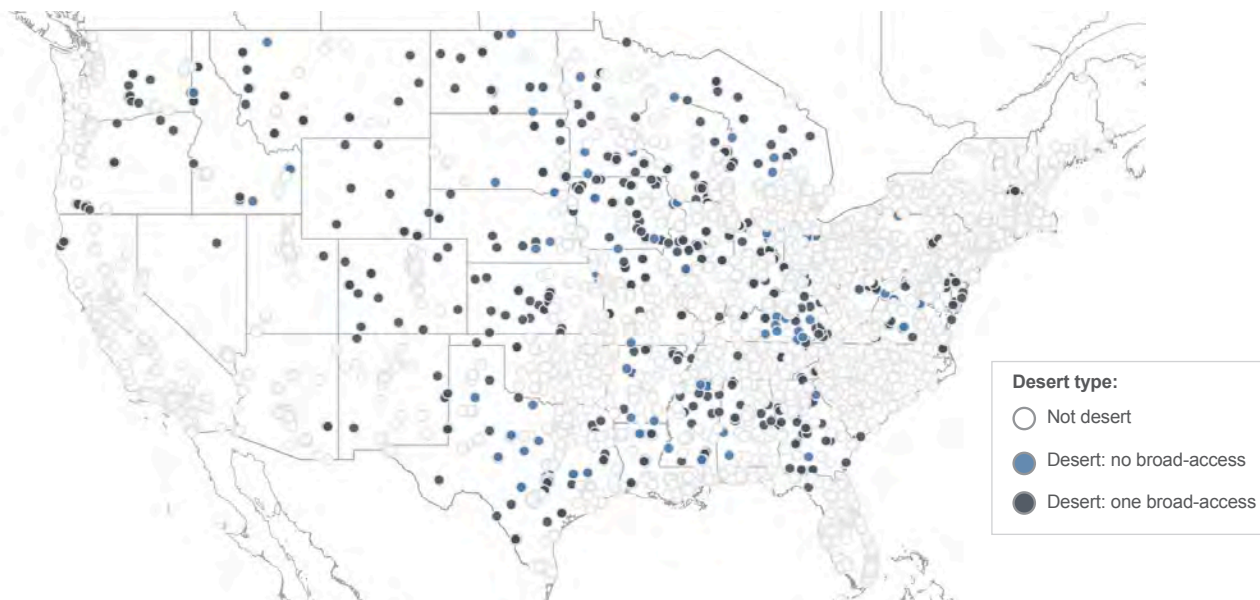
Addressing Education Deserts Moving Forward

When educational choices are constrained by geography, policymakers and education leaders may be compelled to respond in a number of ways. Policymakers may point to online and distance education courses to address the problems outlined in this report. But only one in ten undergraduates enrolls exclusively online, and the colleges currently dominating the online marketplace (mostly for-profit colleges) consistently have poor educational and labor market outcomes.¹² To date, there is limited evidence that distance education delivers *better* (or even equal) results than traditional learning environments—in fact, online programs serve students of color and those who commute from work far more poorly than other students.¹³ Distance education works best for students who are already familiar with college, like those in Georgia Tech's online computer science master's degree program.¹⁴ Accordingly, online education should not be seen as the primary solution to addressing geographic inequality in higher education, especially if poor quality programs do more to exacerbate the problem rather than solve it.

A more promising response would be to provide supplemental financial aid to students living in education deserts. This could be a Pell Grant bonus or a similarly-designed grant or scholarship to help defray some of the additional costs associated with traveling far away from home. By helping students defray travel expenses, cover child care costs, or make up for time taken off work, supplemental aid may encourage students to invest in college even if it is geographically inconvenient. Policymakers could complement this aid by awarding additional funds to the colleges operating in education deserts to ensure these institutions offer a wide array of academic

programs, student support services, or additional financial aid to help students make progress toward their degrees. The map below shows the colleges operating in current education deserts. Helping these colleges build capacity where needed could be a way to both expand opportunity and promote student success in places where opportunities are the most constrained.

Location of Colleges in Education Deserts




Both of the previous examples require supplemental funds either for students or colleges. Colleges operating in education deserts could also benefit from strategic coalitions and networks of colleges located nearby or in similar marketplaces around the country. It may be possible that colleges operating in education deserts are already doing innovative work with community partners and K-12 schools to reach members of the local community. By identifying other communities around the country that face similar challenges or have similar local market structures, colleges may find ways to share best practices, improvement strategies, and ideas on building and sustaining coalitions to ensure colleges are promoting opportunity to the fullest extent possible. Policymakers could help provide resources and technical assistance to support that kind of collaboration.

Similarly, federal and state policymakers may find geography useful for accountability purposes—for example, they may need to focus more on policy “carrots” rather than “sticks” when it comes to colleges operating in education deserts. Or they may find it useful to measure how well a college is serving its local area, while also accounting for local contexts when measuring a college’s performance. For example, if a college located in an education desert has poor outcomes, some of the variation may be explained by factors taking place in the local economy (e.g., high unemployment, weak labor market, etc.) and policymakers may want to explore ways of incorporating local context into accountability models.

Conclusion

Whether through financial or non-financial policy responses, state and federal officials should look closely at the role geography plays in shaping educational opportunities. Doing so may help them diagnose and solve problems in new ways; it may even help rethink how people make educational choices and imagine new ways to support students who are place-bound. The goal of this paper is to help researchers and policymakers think more broadly about educational inequality by focusing on what is often hiding in plain sight—place matters and has lasting consequences on educational opportunities. As this research shows, when policymakers' goals are aligned to improve educational opportunity and reverse inequality, geography should play a central role in guiding their conversation to make sure the promise of a quality education isn't just a mirage for the millions of students looking to access college degrees each year.



Endnotes

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