

RURAL TRANSFER PATHWAYS

Balancing Individual and Community Needs

A TACKLING TRANSFER REPORT | 2021







Rural Transfer Pathways

Balancing Individual and Community Needs

Authors

Gelsey Mehl & Tania LaViolet

Contributing Analyst

McKenzie Maxson

TACKLING TRANSFER

The Aspen Institute College Excellence Program, HCM Strategists, and Sova have joined together through the Tackling Transfer initiative to partner with institutional leaders, policymakers, and practitioners in Minnesota, Texas, and Virginia to dramatically improve transfer outcomes for baccalaureate-seeking students who begin at community colleges.

This comprehensive effort incorporates policy, practice, research, and strategic communications to foster the conditions for scaled and measurable improvements for baccalaureate-seeking transfer students, including the large number of students from low-income backgrounds and students of color who begin their education at community colleges.

The Aspen Institute College Excellence Program aims to advance higher education practices and leadership that significantly improve student learning, completion, and employment after college—especially for the many students from low-income backgrounds and students of color on American campuses.

HCM Strategists is a public policy and advocacy consulting firm committed to removing barriers and transforming how education is delivered. Our work focuses on developing sound public policy, aligning teaching and learning practices and advancing meaningful accountability and equitable strategic financing. HCM works to support leaders and organizations that prioritize the voices and outcomes of Black, Hispanic, Native American, recent immigrant, low-income and adult students.

Sova focuses on improving the quality and accelerating the pace of complex problem solving in the areas of higher education and workforce development. Animated by a core commitment to advancing socioeconomic mobility for more Americans, Sova pursues its mission through distinctive approaches to will-building, strategic planning, change leadership and process improvement.

Acknowledgements

The authors of this work would like to thank Heather Adams, Ben Barrett, Amy Blair, Désirée Jones-Smith, Rebecca Lavinson, Yazmin Padilla, Bob Templin, and Josh Wyner of the Aspen Institute for their thought partnership and editorial expertise in developing this report, as well as Taylor Boulware for her editorial review.

Our work on transfer is made possible by the generous support from Ascendium, ECMC Foundation, Joyce Foundation, and the Kresge Foundation.

We are also grateful for the individuals at Arizona State University, Bluefield College, California State University, Chico, Cankdeska Cikana Community College, Dabney S. Lancaster Community College, Danville Community College, Indian River State College, Johnston Community College, Lindsey Wilson College, North Carolina State University, Patrick Henry Community College, Shasta College, Southwest Virginia Community College, Stone Child College, Swarthmore College, and Wytheville Community College who generously shared their time, insights, and experiences for the development of this report.

Contents

Introduction	4
Case Studies	10
Case Study 1: Partnership-Enabled On-site Delivery Pathways	10
Case Study 2: Locally Assisted Online Pathways	15
Case Study 3: Return Migration Pathways	17
Fostering the Conditions for Strong Rural Transfer Pathways	21
Conclusion	22
Endnotes	23
Additional References	25

Introduction

Overview

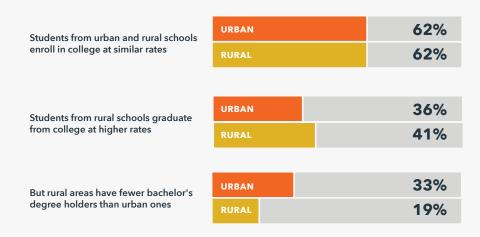
Higher education is often billed as a public good. Indeed, an abundance of evidence demonstrates that, on the whole, it benefits communities—not just individuals. Across the nation's diversity of rural areas, however, the relationship between higher education and individual opportunity and community well-being can be more complex. Often, students from rural communities must leave home to attend college, and rural college graduates can be drawn to the job opportunities in more urban areas (a phenomenon referred to as outmigration). In these all-too-familiar scenarios, the individuals benefit, but their hometowns may be worse off when they do not return. Meanwhile, other promising students do not pursue higher education because they do not wish to leave home, potentially limiting their individual opportunities and upward mobility.

Rural community colleges serve as an important bridge between these two extremes by providing crucial workforce and talent development through certificates and applied degrees tailored to the needs of their regions. However, bachelor's degree attainment in rural areas remains a challenge, despite local needs for bachelor's education in the workforce. This brief investigates the transfer mission of rural community colleges as a means

to increase bachelor's degree attainment while minimizing the impacts of outmigration and promoting local workforce needs.

A Balancing Act: Outmigration and **Bachelor's Education**

There is a gap between the number of rural students who enroll and graduate from college and the number of college graduates living in rural areas. Students from rural communities are almost as likely to go to college as students from other places. College enrollment rates at rural public high schools are nearly the same as those at urban schools, though both trail suburban public high schools. Students from rural high schools also graduate from college at higher rates than students from urban schools.² Those who start at rural community colleges transfer to four-year schools and complete their bachelor's degrees at similar rates as students who start in urban and suburban community colleges.3 These statistics trace outcomes for students from rural communities. Surveys of bachelor's degree attainment levels in rural areas, however, suggest these communities are not benefiting from their students' success. According to the USDA, 19 percent of rural residents have a bachelor's degree or higher, compared to 33 percent of those living in urban areas.4



This disparity between the attainment of students who come from rural communities and the attainment in the rural communities themselves is likely due to outmigration. Researchers at Brookings found that rural counties with the highest rates of intergenerational upward mobility—the likelihood individuals will be economically better off than their parents—also experienced higher outmigration of young people, losing one in five young adults on average. 5 A central question for rural communities is how to decouple the relationship between upward mobility and leaving home. This is especially critical for rural regions with large Black, Hispanic, and Native American populations, which have lower rates of upward mobility in comparison to rural areas with lower rates of diversity.6

It might be easy to boil this challenge down to a lack of good jobs in rural areas. While limited employment opportunities may be true in some cases, the economic picture and workforce needs in rural areas are diverse and complex. For instance, mining, agriculture, and manufacturing are the primary industries in many rural communities, but they aren't the only ones. Overall, the service sector—from food services to health care and education—employs the most rural workers.7 CityLab found that only nine percent of rural residents work in agriculture and 12 percent in manufacturing, compared to 22 percent who work in education and health services.8 Our research contacts named a variety of local industries that could use more employees with bachelor's degrees: agriculture, business, construction technology, criminal justice, cybersecurity, early childhood and K-12 education, fire science, food and animal production, health care, information technology (IT), manufacturing, social work (including drug addiction recuperation), and the community college and tribal college workforce itself. With the increase in permanent remote work spurred by the COVID-19 pandemic—in jobs that skew higher-income9—rural communities may have an additional opportunity to draw local graduates



With the increase in permanent remote work spurred by the COVID-19 pandemic-in jobs that skew higherincome - rural communities may have an additional opportunity to draw local graduates back home to their families and to more affordable housing options, access to outdoor amenities, and other assets of rural living.

back home to their families and to more affordable housing options, access to outdoor amenities, and other assets of rural living. With these jobs available, rural educators must act early and persistently to ensure that residents are aware of these opportunities and have clear educational paths to realizing them.

Linking Transfer to Rural Community Needs

A sizeable number of rural community college students want bachelor's degrees. Annually, approximately 30 percent of entering students in rural community colleges transfer to fouryear institutions. 10 Of those who transfer, approximately 45 percent of them complete a bachelor's degree within six years of starting postsecondary education.

In its typical format, promoting bachelor's attainment through transfer has the potential to feed into outmigration. However, when thoughtfully designed, transfer pathways can maintain students' connections to their hometowns and link them to job opportunities back home—and transfer doesn't have to necessitate that students move away in the first place. Ultimately, when transfer pathways meet the needs and career goals of rural students as well as the workforce needs of rural communities, they can help promote collegegoing and completion while also retaining local talent and strengthening rural communities.

ABOUT RURAL COMMUNITIES IN THE US

Defining Rural Colleges

We lack a standard definition of rural America. The two federal agencies that would conceivably serve as the arbitrator of this definition, the U.S. Census and U.S. Department of Agriculture, use different measurements. Both agencies define rural as everything that isn't urban, or "nonmetro," encompassing everything from small college towns to more isolated rural communities.11

Likewise, there's no clear way to define a rural college, although organizations such as the Alliance for Research on Regional Colleges are investigating how to better define rural and ruralserving colleges.¹² The Integrated Postsecondary Education Data System (IPEDS) codes institutions by four "campus setting" types-urban, suburban, rural, and town-but institutions can also be "rural serving" even when located in urban and suburban locations. According to our analysis of IPEDS data, there are 472 rural community colleges and tribal colleges serving over two million students. Another 177 community colleges are rural serving and enroll 1.6 million students (though we cannot disaggregate how many of those students are from rural locations).13 Rather than try to apply any of these definitions or design a new one, this report is inclusive of any college or community that sees itself as rural-based or rural-serving.

Demographics of Rural Communities

Overall, rural communities are less racially diverse than urban and suburban communities. According to Pew Research Center, rural counties are 21 percent nonwhite on average. In comparison, urban counties are 56 percent nonwhite, and suburban counties are 32 percent.14 However, these data obscure some of rural America's diversity. About 11 percent of rural counties are majority nonwhite.¹⁵ About 10 percent of Black Americans live in nonmetro counties, mostly in

the Southeast, and sizable Native American and Hispanic populations live in the Great Plains, Southwest, and Pacific Northwest, with Native Americans disproportionately living in rural areas in comparison to the total U.S. population.¹⁶ Furthermore, some rural counties have become destinations for immigrants, such as some counties in Idaho, Kansas, North Carolina, and Texas.¹⁷

Population Changes

Outmigration is the reality for many rural counties. Between 2000 to 2014, 68 percent of rural counties had more outmigration than in-migration. The rural population loss was largest in the Midwest, where 85 percent of rural counties experienced higher outmigration than in-migration. To make matters worse, "prime-age workers"-defined as workers between 25 to 45 years old, who are more likely to be fully employed and contribute to local economies-are leaving at higher rates. Eightyeight percent of rural counties have lost prime-age workers since 2000.18 While population declines began to reverse in more recent years-the USDA reports that the rural population increased by 0.02 percent between 2018 and 2019 after declining for the prior six years-rural counties still grew less than suburban and urban ones.19

These data may not capture everything about population trends in rural America. As the Aspen Communities Strategy Group notes, some rural places are growing, and some rural counties have been reclassified as exurban or suburban, leading to discrepancies in comparing data across multiple years.20

Three Rural Transfer Pathways

To develop transfer pathways that fulfill the bachelor's degree attainment needs of their students and communities, colleges needs to meet rural students and communities where they are—literally and with respect to their workforce needs, individuals' career goals, cultural norms, and financial status. Excellent colleges shape their transfer pathways to fit their uniquely rural contexts.

Rural workforce needs: Transfer pathways that are not aligned to local workforce needs may promote outmigration. Students may be unable to secure a related job back home or may not be actively encouraged to do so by counselors, faculty, and other college staff. Not making a direct link from bachelor's degree attainment to local careers can exacerbate the idea that college is not necessary.

To align transfer pathways with local workforce needs, colleges can analyze local labor market demand and build transfer pathways that grow the number of graduates with bachelor's degrees in fields specifically needed in the community. Local employers also might offer guaranteed interviews or job placements for program graduates.

Rural geography: Many rural communities are education deserts without a four-year school in the region or within reasonable driving distance, leaving the rural community college without an obvious transfer partner.²¹ Tribal colleges in particular are often far from other postsecondary institutions. Even if there is a four-year school nearby, students may lack transportation to commute. Rural student may also be hesitant to leave their communities.

To address the geographic reality of rural students, transfer pathways don't have to require a departure from the community. Some programs can be offered at the community college campus or online-bringing transfer to the students instead of asking them to leave their communities. Alternatively, programs that require a more traditional transfer path in which students move away for a couple years should include intentional career opportunities and trainings in students' home regions. The linkage back to jobs in the community can alleviate reluctance to leave home by signaling that departures can be temporary.

Rural wealth and college-going culture: Rural students may have concerns about their ability to afford college. Rural communities tend to experience higher levels of poverty, including "concentrated poverty," defined as a county in which at least 20 percent or more of the population is living in poverty.²² While having a college degree does increase earnings for rural workers, salaries are lower in rural places than they are elsewhere.²³ This reality can decrease the real and perceived financial value of earning a bachelor's degree. Also, some rural communities have been preyed upon by for-profit colleges, leading to overestimation of higher education costs, apprehension around student debt, and distrust in higher education.

To make the pathway to earning a bachelor's degree convenient and affordable, students can start their transfer journeys early. Dual enrollment exposes students to college coursework and provides exploration on their careers before they've graduated from high school. Starting early can also help address affordability concerns, as courses taken in high school shave time (and tuition) off the typical four years required to earn a bachelor's degree. Transfer programs may also offer discounted pricing, scholarships, and financial and occupational incentives to return to the community after graduating.

This report shares three transfer pathways that apply the strategies above. The case studies and recommendations stem from a literature review of rural colleges, communities, and transfer pathways and conversations with two dozen presidents, senior leaders, and transfer advisors at rural and rural-serving community colleges, tribal colleges, and four-year schools in Arizona, California, Florida, Kentucky, Montana, North Carolina, North Dakota, Virginia, and West Virginia. This brief also draws on conversations and working sessions on improving transfer in the Tackling Transfer project's three states of focus—Minnesota, Texas, and Virginia—and the Aspen Institute's Rural College Excellence Advisory Group.

PARTNERSHIP-ENABLED ON-SITE DELIVERY PATHWAYS



year program at the community college campus. Faculty from the four-year school deliver upperdivision coursework on-site at rural community colleges, and/or community college faculty deliver programs as adjuncts employed by the four-year partner.

2

LOCALLY ASSISTED **ONLINE PATHWAYS**



Students begin programs at the community college. The community college partners with four-year schools that offer online programs in local market-aligned fields. Students transfer to the online programs to complete their bachelor's degree programs. While students complete upper-level coursework online, they can still access resources at the community college campus, such advising services.

RETURN MIGRATION



based experiences in their home

The remainder of this report shares three case studies from postsecondary institutions in different rural communities around the country that have developed these transfer pathways. By detailing how they integrate the local labor market, geography, and students' needs into these pathways, we hope to provide other rural community college leaders with a vision for how they too can reform their transfer pathways to better serve their students and communities. The report ends with a list of recommendations for institutional leaders and their community partners, such as local government and regional economic development authorities, to support the broader conditions for transfer pathways that align to rural labor market and strengthen rural communities.

These transfer pathways are applicable and adaptable to a variety of rural contexts and institutional types: rural colleges on the

outskirts of metro areas and in more remote locations, public and private nonprofit four-year partners, highly selective schools, and openaccess institutions. The case studies feature pathways in a specific, but diverse, set of program areas—business, counseling, criminal justice, information technology, social work, and teacher education—but colleges could apply them in other needed fields too, such as agriculture or nursing and other health care fields.

We acknowledge this report has two limitations: First, while we recognize the diversity of rural America and hope rural college leaders will use these pathways to equitably serve their Black, Hispanic, and Native American students, the case studies stem from predominantly white communities. Our conversations with leaders of tribal colleges and rural minority-serving institutions suggest that these transfer pathways could serve their students and communities,

too, with adaptation and additional investments. (Due to a history of underinvestment, MSIs and tribal colleges have limited funds to provide scholarships or fund internships and apprenticeships.) Tribal colleges leaders, for example, are experimenting with online programs and other hybrid models to serve students who feel safer and more supported living within the tribal community. Some are also forming consortia to provide bachelor's degree programs in needed fields collaboratively and in partnership with other in-state four-year schools.

Second, these are relatively new pathways that are not yet fully proven. We were unable to rigorously evaluate their impact, such as accessing graduates' outcomes. Nonetheless, these pathways were designed specifically with the needs and experiences of rural students and communities in mind. We share these case studies as emerging practices to provide examples and inspiration to other rural college leaders. In the coming years, it will be critical to evaluate if these pathways are having the intended outcomes, both completion and post-completion outcomes: Are students transferring and completing bachelor's degrees in a timely manner? Are graduates staying in the rural communities or returning home after completing? Are they finding well-paying jobs aligned to their bachelor's degrees in their hometowns? Are their hometowns' economies strengthened as a result?

We hope by building more transfer pathways like these—and innovating to introduce other notyet-tried models—rural colleges can help more students earn bachelor's degrees while ensuring their educational journeys connect them to careers in their local communities



PARTNERSHIP-ENABLED **ON-SITE DELIVERY PATHWAYS**

Students complete the entire four-year program at the community college campus. Faculty from the fouryear school deliver upper-division coursework on-site at rural community colleges, and/or community college faculty deliver programs as adjuncts employed by the four-year partner.

Lindsey Wilson College and community colleges across Appalachia

Lindsey Wilson College leases space for community campuses at over 20 community colleges in Kentucky, Ohio, Tennessee, Virginia, and West Virginia. Lindsey Wilson faculty and enrollment coordinators work at these community campuses to provide bachelor's and master's programs in human development and counseling. Many graduates enter careers as substance abuse counselors, a critical need in a region hard-hit by the opioid epidemic.

Background

One way to bridge the vast distance between many rural communities and the closest fouryear school is to provide more programs directly in the community at the local community college. To create the conditions for this possibility, some states have granted their community colleges the authority to confer bachelor's degrees. This movement began in Florida in 2001 when the state legislature authorized St. Petersburg Community College (now known as St. Petersburg College) to offer a limited number of bachelor's degree programs. Today, 27 of Florida's 28 state colleges offer bachelor's degrees, and another 22 states also allow at least some of their community colleges to confer bachelor's degrees.24

However, legislatures often limit community college baccalaureate programs to applied degrees in CTE (career and technical education) fields. In the name of limiting in-state competition, they may explicitly disallow community colleges from offering bachelor's degrees in the liberal arts and other fields that overlap with programs at in-state four-year schools. Even with these limitations, the fact that community colleges confer any bachelor's degrees can produce debates over "mission creep"

and generate ill will.²⁵ In some states, community college baccalaureate programs may be politically infeasible.

Another way to deliver bachelor's degrees at community colleges is through partnerships with four-year schools. This model has been adopted for more advanced degree programs too. The University of Washington's medical school operates a program that allows residents of Alaska, Idaho, Montana, Washington, and Wyoming to earn medical degrees without leaving their communities.²⁶ The goal is to grow the number of rurally based doctors.

A shortage of licensed counselors in their home state of Kentucky prompted leaders at Lindsey Wilson College's (LWC) School of Professional Counseling to embed programs directly in communities that needed more mental health professionals. Lindsey Wilson rents space at the partnering community colleges, employs an enrollment coordinator who works out of the LWC space, and delivers courses through a combination of adjuncts based in the community and LWC faculty who are willing to commute. Partly, the college's own unique history led them to embrace an on-site model. Lindsey Wilson was founded as a junior college that fed into Vanderbilt University. While it has been

independent from Vanderbilt for decades and has offered bachelor's degrees since the mid-1980s, its origin has produced a transfer-friendly culture. For example, so long as the sending community college is properly accredited, Lindsey Wilson commits to accepting and applying as many of entering students' credits as possible.

The approach of Lindsey Wilson and its community college partners provide lessons for how to shape on-site programs to meet local workforce needs and make programs offered in place feel like an authentic college experience.

Pathway Components

Develop on-site partnerships that meet specific community needs

For about a decade, Lindsey Wilson has added two to three community college partners every other year, driven by market research identifying which Appalachian communities could employ more licensed counselors. After identifying a potential site through market research, leaders from the School of Professional Counseling meet with two key partners. First, with a team from the community college—often the provost, department chair, and transfer advisors—to ensure there will be a large enough volume of students wanting bachelor's degrees to sustain a program for years to come. Second, they meet with local mental health providers to confirm that the market research findings reflect a true workforce need from the employers' perspective.

Lindsey Wilson has aimed to balance its mission to grow the number of mental health counselors in Appalachia against financial and geographic realities. LWC will only expand to communities where they won't face competition from another postsecondary institution offering a comparable program at a similar tuition rate specifically for community college transfer students. Lindsey Wilson also won't expand to communities where students might be unable to complete the coursework, including due to insufficient broadband connections.



Lindsey Wilson has aimed to balance its mission to grow the number of mental health counselors in Appalachia against financial and geographic realities.

Dedicate partnership-serving space and support staff roles

Lindsey Wilson secures space at each partner community college for a community campus. At some colleges, LWC has dedicated office space and classrooms. At others, they are located within the transfer center. Funding arrangements paid by LWC to the community colleges can also vary from flat fees to per-student charges. Lindsey Wilson's agreements also allow students to continue to access the community college's library, computer labs, and other support services, even after they have moved onto the latter two years of coursework.

Physical space is important, and so is a human presence. Lindsey Wilson pairs embedded space at the partner community college with dedicated program staff. Each LWC site has a full-time enrollment professional and a resident faculty member, who often live in the community. These LWC staff members can help advise students about entering and completing the programs and point them to LWC-specific resources, including a program map laying out the required coursework to graduate in four semesters, and online tutoring.

Having this on-site presence is ideal, but if it's not possible to have staff live and work in the community, four-year institutions can consider a lighter option in which their staff visit partner community colleges on a regular schedule. For example, advisors from the University of Louisiana at Lafayette make a weekly visit to Louisiana State University at Eunice, where students have the option to complete a bachelor's degree in elementary education onsite in Eunice.²⁷

Provide convenience and affordability for rural students

By the very nature of offering the program directly in the community, Lindsey Wilson makes programs accessible to place-bound students and circumvents hesitancy around leaving the community for further education. Still, many rural community colleges serve a widely dispersed population. Lindsey Wilson program coordinators found that, at the most extreme, students were driving over five hours to attend classes

To mold the program to this commuter population, LWC operates most programs on a weekend schedule. Classes are offered Friday evening (4 pm to 9 pm) and most of Saturday (9 am to 4 pm) to accommodate students who work during the week or cannot otherwise make the long drive to campus for multiple days in a row. The compressed weekend schedule also allows instructors from the main LWC campus or elsewhere to drive into town to teach classes. (LWC covers the cost of their travel and hotels.)

Affordability is another component of making bachelor's degree programs accessible to rural students. As such, Lindsey Wilson offers discounted tuition for the on-site programs. While tuition is typically around \$1,000 per credit hour, tuition at the community campuses is only \$419 per credit hour.

While some of the elements of a traditional residential campus experience might be difficult to replicate through an on-site delivery model, Lindsey Wilson brings one milestone graduation—out to the communities so everyone can participate. Students are encouraged to come to the graduation ceremony at the main Lindsey Wilson campus, but many are unable to make the five hour or more journey. Instead, Lindsey Wilson hosts a pinning ceremony, which is essentially a graduation ceremony, at many community colleges. The LWC President attends these events, and they can be a big draw for

locals as well. At Wytheville Community College in southwestern Virginia, about 500 people came to watch 30 students graduate from the Lindsey Wilson program.

Recommendations for High-Functioning On-Site Partnerships

Regardless of the details of space arrangement, it can be all too easy for on-site programs to turn into business transactions, where partners focus on the cost of space over how to best serve their students. For high-functioning onsite partnerships, consider the following:

- Set expectations around how to navigate different academic calendars, tuition structures, etc.
- Determine if joint funding can support shared classroom technology and other equipment.
- Clarify which partner will be responsible for which components of the student life cycle and train staff appropriately. For example, will community college advisors be trained on how to help students register for courses through the four-year school?
- Have faculty from both schools co-design the major-specific program maps and parts of the curricula.
- Share responsibility for transfer student outcomes. This requires community colleges to measure success in terms of bachelor's degree attainment, not only transfer-out rates; and it requires fouryear institutions to support students while still enrolled at the community college.²⁸ Faculty from both schools can also hold regular meetings to discuss student learning and progression.
- Establish a joint program advisory board of employers that meets with both faculties at the same time.

Source local and commuter instructors

It can be difficult to find faculty at the four-year institution who want to deliver these programs, especially if they aren't bought into the mission. Faculty members who are assigned to community college sites might view their assignments as a punishment, resulting in lowered motivation. It also might require sizable financial incentives to convince current faculty to accept placements at a community college site.

For Lindsey Wilson administrators, finding permanent resident faculty supervisors for some community campuses is the greatest challenge to delivering the programs. The pool of candidates holding the requisite graduate degrees isn't large, and they may be enticed by the higher salaries at hospitals and other local health care employers. Still, LWC depends on some faculty who live in the partner communities or who are based at the main campus. Motivated by the mission of expanding mental health services in the region, some instructors are willing to drive long distances to teach at the partner sites.

Another option is to employ community college faculty as adjuncts, mirroring how colleges deliver dual enrollment within high schools; high school teachers become college adjuncts to teach the dual enrollment courses. Community college faculty can be trained to deliver the upper division coursework as university adjuncts or even to hold joint appointments at both the community college and four-year school.

In addition to relying on some full-time faculty, LWC recruited a large group of adjuncts to teach courses at the community campuses. These adjuncts are largely licensed therapists or other professionals working in the mental health field. Because many of these adjuncts live in the community and work at local employers, they also are a conduit to jobs for students after they finish the program.

Link students to hands-on experience in the community

Ultimately, the goal of Lindsey Wilson's human development and counseling program is to prepare students for careers as mental health professionals across Appalachia. Bringing the bachelor's degree programs out to rural communities is one major component to meet this goal. The other is connecting students to work experiences, and ultimately jobs, in their communities.

Lindsey Wilson's program involves practicums at six different sites for three semesters. Students must complete 120 hours of training in the field. LWC staff credit these requirements for producing high job placement rates for their graduates. Students have opportunities to collect six reference letters and make connections with many potential employers.

Lindsey Wilson's focus is substance abuse counseling, but the idea of community-based work experiences translates to other fields too. For example, Trinidad State Junior College in southeastern Colorado and the University of Colorado Denver offer a similarly structured on-site program, the Teacher Preparation for Rural Education Program (TPREP). Students earn a bachelor's degree in elementary or early childhood education without leaving the community, and they participate in field experience at local elementary schools.



Bringing the bachelor's degree programs out to rural communities is one major component to prepare students for careers as mental health professionals across Appalachia. The other is connecting students to work experiences, and ultimately jobs, in their communities.

LOCALLY ASSISTED **ONLINE PATHWAYS**

Students begin programs at the community college. The community college partners with four-year school that offer online programs in local market-aligned fields. Students transfer to the online programs to complete their bachelor's degree programs. While students complete upper-level coursework online, they can still access resources at the community college campus, such as the library, computer lab, and advising services.

Shasta College and university partners in the North State region of California

Shasta College created the Bachelor's Through Online and Local Degrees (BOLD) program to build pathways to bachelor's degrees for local students that are accessible, based in the community, and connected to careers needed in the region-especially for students unlikely to complete a degree, such as foster youth and working adults with some college experience. BOLD participants study business, criminal justice, early childhood education, information technology (IT), or social work through online programs at one of the partner universities. They also enroll in a one-credit course through Shasta, which gives them continued access to services at the community college campus as they complete their online coursework.

Background

On-site bachelor's degree programs delivered by a four-year partner might be right for some communities, but others may find they have limitations. The community college may not have the resources and expensive equipment needed to deliver the full bachelor's degree program. Competition for workers with specific qualifications can result in high turnover of community college faculty or adjuncts, making programs unsustainable. Four-year faculty and adjuncts may simply be unwilling or unable to drive for hours to another community on a weekly basis. Geography may make it difficult for students to congregate in one location for the four-year school's coursework.

These challenges are the reality for Shasta College, located in the far northern California and serving a region of more than 10,000 square miles. Shasta is the only public postsecondary institution in its three-county service region, making it impossible for students to access a public four-year school without leaving the area. Even California State University (CSU) Chico, a transfer destination for some Shasta students.

can be too far away for others; CSU Chico is a two-hour drive from the main Shasta campus. Most CSU Chico faculty don't want to drive to teach at Shasta, and many local students cannot or do not want to relocate to Chico.

At the same time, Shasta College wanted to contribute to—and increase—bachelor's degree attainment in the region. A public health report investigating the wellness of Californian counties had ranked Shasta County as one of the least healthy in the state. Making a link between wellness and educational attainment, the report pointed out that only 20 percent of the Shasta population had a bachelor's degree. Moreover, only 20 percent of the population was projected to earn a bachelor's degree in the coming years.

The concerning trends prompted the leaders of the five north state counties to formalize their longstanding, but not yet coordinated, collaboration. Over the years, the five counties had developed their own local solutions and county-specific organizations, such as Expect More Tehama and Reach Higher Shasta. With additional philanthropic support, they came

together as a five-county region, North State Together, to work on issues like health and educational attainment. Shasta College, as the only public higher education institution serving three of the five counties, serves as the hub of North State Together.

This report and the birth of North State Together prompted Shasta College leaders to find a way to provide an affordable bachelor's degree without students needing to leave the region. The result was the Bachelor's Through Online and Local Degrees (BOLD) program, which connects students to online programs at various fouryear university partners that are aligned to the workforce needs of the north state region. What sets Shasta College's BOLD program apart from other online programs is the in-person programmatic support. Shasta provides BOLD students with a physical home base at the college and a cohort model that creates a community of BOLD participants.

Pathway Components

Build online pathways around regional needs

Stemming from their participation in North State Together, Shasta College leaders wanted to take a regional approach to thinking about economic development. Recognizing that Shasta County's needs might look different from those of the entire north state region, they decided to investigate what fields needed more bachelor's degree-holding workers not only in Shasta County but across the entire north state region. Workforce and economic development needs can

> cross county lines, especially when factoring in the locations of tribal communities.

Shasta College investigated what fields needed more bachelor's degree-holding workers not only in Shasta County but across the entire north state region.

An Economic Opportunity Center analyst housed at Shasta College advised leaders on which fields had a high need for more bachelor's-level workers across the region: business, criminal justice, early childhood education, IT, and social work. The Shasta team then looked at what transfer pathways they already offered at Shasta and what four-year universities offered an affordable, online bachelor's degree program in those fields. So far, they've set up transfer programs in business, criminal justice, IT, and social work and with the Chico, Humboldt, and Sacramento campuses of the California State University system, as well as with Western Governors University.

Maintain students' connections to campus resources

One of the populations of focus for the BOLD program are adults aged 25-64 who have attended some college but never competed their degrees. In California overall, this figure is 21 percent; in the north state region, it's 31 percent—the highest in the state and one of the highest nationwide.²⁹ At the same time, these students have families, jobs, and other commitments keeping them in place. Therefore, Shasta leaders realized the BOLD program would need to be primarily online to allow students to continue working and living in their home communities. The Shasta team had originally planned to create a hybrid program with some face-to-face classes but settled on a mostly online model at the suggestion of students wanting to join the program.

Shasta leaders also had foster youth, another population overrepresented in the region, in mind when designing BOLD. The college provides workshops, mentoring, gas cards, and other support services to the former foster youth it enrolls, and leaders knew it would be particularly important for these students to maintain access to those resources. Continuing their education online would mean that these students wouldn't be able to take advantage of the equivalent services available at the four-year school.

The Shasta team wanted to ensure that BOLD students would remain part of their community and able to access supports services even after transferring to the online programs at partner universities. The solution was a bit of an administrative trick. After transferring, BOLD students enroll in a one-credit course at Shasta. As California has the lowest community college tuition rate in the country, the additional tuition comes to only \$46. Because it's so inexpensive, the college's foundation was able to cover this expense for the first 100 BOLD students.

By maintaining their official enrollment at Shasta through the course, BOLD students maintain access to the college's library, computer labs, tutoring, and other services even as they are primarily enrolled at another university. Critically, students can make use of a reliable internet connection on Shasta's campus, as well as its extended education centers in more remote areas of the region where Internet access is problematic. Internet access is a key ingredient to any program that requires students to complete online courses in rural areas, but it's also one of the biggest challenges facing rural colleges, illuminated even more clearly by COVID-19.30

Additionally, BOLD provides a cohort environment. While they may be majoring in different subjects or completing online courses at different universities, they're encouraged to study together at the Shasta campus. As more students join, Shasta leaders hope to expand on the cohort nature of the program, such as potentially offering a special summer program for BOLD students

By maintaining their official enrollment at Shasta through the course, BOLD students maintain access to the college's library, computer labs, tutoring, and other services even as they are primarily enrolled at another university.



RETURN MIGRATION **PATHWAYS**

Students begin programs at the community college. Students complete a "traditional" transfer path; they move on to the four-year institution for their upper-division coursework. The partnering institutions intentionally build the programs to align with local workforce needs by collaborating with employers, who also provide students with work-based experiences in their home communities.

Johnston Community College, Johnston County Public Schools, and North Carolina State University

The program helps Johnston County grow their own public school teacher pool. After beginning coursework at Johnston Community College, possibly while still in high school through dual enrollment courses, students transfer to North Carolina State's College of Education to finish their bachelor's degree. Students complete field experiences and student teaching at a public school in Johnston County. The Johnston County public school district also offers program graduates a guaranteed job interview. In total, students spend five semesters in Johnston County and three in Raleigh at NC State.

Background

As with the first two case studies, the instigation to create a new transfer pathway was a local workforce need. For Johnston County, a primarily rural county on the edge of the Raleigh-Durham metro area, this workforce need was public school teachers, especially math and science teachers mirroring a nationwide teacher shortage that is impacting rural communities, large cities, and everything in between.³¹ Johnston County Public Schools had about 30 vacant teaching positions, and district leadership was finding it increasingly difficult to hire qualified teachers. Locals often left Johnston County to accept higher-paying positions in the neighboring and more urban Wake County (the location of Raleigh).

The teacher shortage led to a realization that the county needed to grow their own teacher workforce, encouraging more local students to consider a career in education and building an affordable and efficient pathway for them to do so. At the same time, one of the priorities named in the latest University of North Carolina strategic plan was to better serve rural counties in the state.³² The workforce need in Johnston County and directive from the UNC system led



The teacher shortage led to a realization that Johnston County needed to grow their own teacher workforce, encouraging more local students to consider a career in education and building an affordable and efficient pathway for them to do so.

the K-12 district, local community college, and a leading four-year university to develop a new teacher education program.

A committee of representatives from the three institutions and the state community college system ultimately landed on an early outreach approach in which they'd start recruiting students for the program in middle school and continue to do so in high school. The program would draw on Johnston Community College's robust dual enrollment offerings at local high schools. North Carolina State University, based in Wake County, would aim to send students back to teach in Johnston County, and the school district would incentivize their return by providing field

experiences and student teaching in the county, as well as guaranteed job interviews. In turn, the pathway would help NC State fulfill its mission as a land-grant institution to serve state workforce needs and open up the university to students who perhaps wouldn't have considered enrolling at NC State otherwise.

COMMITTEE MEMBERS FROM THE PARTNERING INSTITUTIONS

North Carolina Community College System	College of Education, North Carolina State University	Johnston Community College	Johnston County Schools
Director of Academic Programs Associate Vice President, Programs	Associate Dean for Student Success and Strategic Community Engagement Director of Professional Education Director of Advising and Recruitment Communications Director	Associate VP of Health, Wellness, and Human Services Department Chair, Education Programs Senior Director of College Communications Marketing Director	Innovation Officer Academic Officer High School Principal Executive Director of Career and College Readiness Chief of Communication and Engagement

Unlike the first two rural transfer pathways, which keep students in place by bringing programs to the communities, this final pathway offers a more "traditional" transfer journey in that students move to the four-year institution for a few semesters. However, unlike typical transfer pathways, these programs build in training and work experiences in students' communities and provide graduates with connections to job opportunities back home. For students who are willing and interested in leaving home for a short period, return migration transfer pathways offer them an opportunity to temporarily move away with a clear road to a career back home.



For students who are willing and interested in leaving home for a short period, return migration transfer pathways offer them an opportunity to temporarily move away with a clear road to a career back home.

Pathway Components

Redesign or create new transfer pathways as necessary

One foundational principle of good transfer practice, as identified in Aspen and CCRC's Transfer Playbook is creating clear, programmatic pathways, including major-specific program maps. While JCC had an existing transfer pathway in early child education, the college lacked a teacher preparation pathway with NC State. To offer this new transfer pathway, the two institutions had to work together to align curriculum, develop a new teacher education program pathway, and build a clear program map for students.

The first step was getting everyone on board, especially the faculty who'd have to invest their time in negotiating course requirements and curricular sequences to map out the program. Mary Ann Danowitz, the dean of the College of Education at NC State, knew it wouldn't be easy, but she prioritized the project and held numerous conversations to educate faculty on the need for the pathway. She shared data on where the

College of Education's students had historically come from (and where they hadn't) and reminded faculty that for the past seven years, enrollment in schools of education had declined 30 percent across the UNC system.

Some faculty became champions of the program early on and helped bring along their colleagues. For others, it helped to hear directly from JCC faculty and school district leaders about their county's need for good teachers and how NC State could help fill this gap. Especially compelling were the stories from school leaders about the extent of open teacher positions and how they'd have to start the upcoming school year with substitute teachers filling in.

Once most faculty were on board, the College of Education paid for about 20 days' worth of time over the summer for them to join meetings with the JCC faculty to begin to design the pathway. In total, the curricular alignment and pathway development took around 18 months. NC State faculty were able to streamline 11–15 different pathways into one teacher preparation pathway. Both sets of faculty made small adjustments to some courses to better align curriculum and ensure that NC State faculty could accept and apply all of JCC's courses toward an NC State degree.

Create seamless pathways that start early

One of the program goals is to expose students both to the teaching profession and to collegelevel work early and, in turn, get them committed to a teaching career and to completing bachelor's degrees. To do so, JCC was able to draw on existing early outreach programs and connections to K-12 students; JCC offers many dual enrollment courses in local high schools and hosts an early college high school on campus. Through a Teacher Cadet Program, JCC also recruits students in middle and high school for teaching careers.

To connect the new teacher education pathway to existing dual enrollment offerings, they structured the pathway to start in 11th grade.

If students take a full dual enrollment course load, including summer classes, they can earn an associate degree by high school graduation and start immediately as juniors at NC State. While most students don't complete their first two years of college coursework on such an accelerated timeline, the promise can be motivating, especially as dually enrolled high school students in North Carolina do not have to pay tuition.

Another component of this seamless transfer pathway is to dually admit students to both JCC and NC State. By being dually admitted, students can complete a few key courses at NC State during the first two years when they are primarily based at JCC. (NC State's accreditation does not allow students to take these particular methods courses elsewhere and transfer the credit, and therefore the course was created as a hybrid for JCC students to take while at JCC. JCC only offers upper-level education courses for child development majors, as they offered an early childhood education program previously, but not a K-12 teacher education program.) The dual admissions agreement maintains JCC's tuition rate for these courses with NC State absorbing the difference. Such agreements can also grant students access to the four-year university's resources and advising services.

Offset costs of a residential college or university experience

Some of the leaders from Johnston County worried that their students wouldn't want to leave the county and wouldn't be able to afford to attend NC State, especially with the additional cost of living expenses in Raleigh. As mentioned, the dual enrollment component helps make the program more affordable at the outset, as students do not need to pay for the JCC courses taken in high school. Both JCC and NC State are trying to expand other financial supports for students in the program.

Knowing the four-year experience will be more costly, the College of Education at NC State plans to award a scholarship to each JCC transfer student in need of financial aid. College administrators plan to connect JCC pathway students to other programs too, like the state's North Carolina Teaching Fellows program, which offers up to \$8,250 per year in loan forgiveness, and the Goodnight Scholars Program, which provides a scholarship of \$21,000 per year to students majoring in STEM fields or STEM education and accepts a cohort of up to 50 transfer students. Additionally, the College of Education plans to build out some programming to train students to become competitive scholarship applicants, such as by developing stronger interviewing skills.

Link to and incentivize jobs opportunities back home

To support return migration, the partners have created a series of local work-based experiences and incentives:

- While enrolled at JCC, students attend summer internships at Johnston County school district sites before transferring.
- After transferring to NC State, students can complete their teaching practicums in the county.
- Johnston County Public Schools commits to interviewing all transfer pathway completers who earn their teaching license from NC State for a full-time position in the district.
- Graduates who teach for at least two years at a qualifying school receive a \$10,000 award, paid out in four installments across their first four semesters teaching, through the NC State Education Scholars program, a partnership between NC State and Johnston County Public Schools, as well as a few other districts in North Carolina with extreme teacher shortages.



Fostering the Conditions for Strong Rural **Transfer Pathways**

The three rural transfer pathways in this brief are strong examples of how institutional leaders can design educational experiences that connect more rural students to bachelor's degrees and, in turn, to job opportunities in their communities linked to those degrees. This list of recommendations provides some steps that can be taken within rural community colleges and in partnership with other colleges, four-year schools, and community partners to provide the foundation for these transfer pathways. By following these recommendations, rural communities can better align transfer programs to their labor market, ensure students have the supports they need to complete their degrees, and provide incentives to ensure students stay in the community or return home after earning their bachelor's degrees.

At the Community College

- Prioritize labor market-aligned transfer paths at the highest level of the college. Ideally, this prioritization stems from the president. Some colleges have also created cabinet-level positions to focus on workforce, economic, and community development and incorporated these priorities into their mission statements.
- Use labor market data to map transfer paths to local workforce needs. This analysis is commonly done-if not required-for terminal career and technical education programs, but could be applied to transfer pathways in humanities, social sciences, and STEM fields as well.³³ Even better, share data on job openings and average salaries with students so they can make smart choices about their program selection and career goals. For example, Wytheville Community College's pathways explorer site incorporates some of this labor market data into a student-facing tool.
- Build pathways that start early, including through dual enrollment. Some community colleges, like Indian River State College on Florida's Treasure Coast, are building clear program maps for dually enrolled students that incorporate their high school requirements and college courses and path them to a bachelor's degree that, in turn, prepares them for indemand jobs.³⁴ Another potential early point of connection are local or state college promise programs.
- Consider forming rural college consortia to create a unified voice for the rural colleges and/ or tribal colleges within the state and increase bargaining power, develop interchanges that support availability of resource-intensive or highly specialized courses, coordinate transfer pathways with four-year schools, and purchase contracts for labor market data tools.

Across the Rural Community

- Coordinate across the region, such as the regional collective impact approach of North State Together. Partners to consider include workforce development organizations, economic development organizations, other local community-based organizations, chambers of commerce, local employers, and local government authorities.
- Require internships and other work-based experiences to occur in students' home regions, regardless of the mode of delivery of coursework (at the community college, at the four-year, online). This training grounds the transfer pathway in a real job opportunity in the community.
- Make the necessary community investments, including reliable Internet access and cell service, good public schools, affordable housing, public transportation, childcare, and other services that will make rural communities enticing destinations for young people and families.
- Create financial incentive programs to return home. Some states and regions, like Vermont and West Virginia, a region in southwestern Virginia, and the city of Tulsa, Oklahoma, have created relocation incentive programs to attract remote workers. The financial incentive can come in the form of up-front cash payments, monthly stipends, tax rebates, rebates for building or buying houses, and reimbursements for relocation costs and office equipment.

Conclusion

Rural community colleges and tribal colleges and their four-year partners across the United States have an opportunity to build transfer pathways that meet the unique needs of their students, communities, and economies. To maintain population levels and meet the workforce needs of rural communities, transfer pathways from these regions must align to the occupational needs of rural communities and students' career goals, address geographic constraints, and provide convenient and affordable programs. The three transfer pathways in this brief provide examples for how rural community colleges can increase bachelor's degrees attainment in rural America while also combating outmigration and strengthening rural communities.



To maintain population levels and meet the workforce needs of rural communities. transfer pathways from these regions must align to the occupational needs of rural communities and students' career goals, address geographic constraints, and provide convenient and affordable programs.

Endnotes

- 1 The three-year averages of the college enrollment rate in the first fall after high school graduation for the graduating classes of 2019, 2018, and 2017 are 62 percent for rural schools, 62 percent for urban schools, and 67 percent for suburban schools. The two-year average of the college enrollment in the first year after high school graduation for the graduating classes of 2018 and 2017 are 65 percent for rural schools, 67 percent for urban schools, and 72 percent for suburban schools. We averaged data for the years preceding the COVID-19 pandemic as college enrollment rates declined for all students in 2020 due to the pandemic. See Appendix B of the National Student Clearinghouse High School Benchmarks Report 2020.
- 2 Six-year completion rates for the graduating classes of 2013, 2012, and 2011 are 41 percent for rural schools, 36 percent for urban schools, and 47 percent for suburban schools. These data include completion of an associate, bachelor's, or advanced degree. See the National Student Clearinghouse High School Benchmarks Report for 2020, 2019, and 2018.
- 3 Davis Jenkins and John Fink, Tracking Transfer: New Measures of Institutional and State Effective in Helping Community College Students Attain Bachelor's Degrees, (New York: Community College Research Center, January 2016).
- 4 Rural Education At A Glance, 2017 Edition, U.S. Department of Agriculture.
- 5 Eleanor Krause and Richard V. Reeves. Rural dreams: Upward mobility in America's countryside. (Washington, DC: Center on Children and Families at Brookings, September 2017).
- 6 Olugbenga Ajilore and Zoe Willingham, "The Path to Rural Resilience in America," Center for American Progress, September 21, 2020.
- 7 Olugbenga Ajilore and Zoe Willingham, "Redefining Rural America," Center for American Progress, July 17, 2019.
- 8 Tanvi Misra, "A Complex Portrait of Rural America," City Lab, December 8, 2016.
- 9 State of Remote Work, Owl Labs, 2020.
- 10 Authors' calculation of the three-year average from the latest National Student Clearinghouse reports.
- 11 Other organizations have tried to define rural counties or communities more specifically. For example, the American Communities Project has defined nine types of rural communities. See Dante Chinni and Ari Pinkus, "A New Portrait of Rural America," American Communities Project, September 25, 2019.

- 12 "Defining What It Means to Be a Rural-Serving Postsecondary Institution," Alliance for Research on Regional Colleges, February 23, 2021.
- 13 Aspen analysis of IPEDS data of the total annual unduplicated headcounts for the 2016 academic
- 14 Kim Parker, et al., "What Unites and Divides Urban, Suburban and Rural Communities," Pew Research Center, May 28, 2018.
- 15 Ibid
- 16 Olugbenga Ajilore and Zoe Willingham, "Redefining Rural America," Center for American Progress, July 17, 2019; "Racial and Ethnic Diversity is Increasing in Rural America," U.S. Department of Agriculture; "American Indians remain disproportionally rural," U.S. Department of Agriculture, December 23, 2014.
- 17 Rural America at a Glance: 2018 Edition, U.S. Department of Agriculture.
- 18 Kim Parker, et al., "What Unites and Divides Urban, Suburban and Rural Communities," Pew Research Center, May 28, 2018.
- 19 John Cromartie, et al., Rural America at a Glance 2020, U.S Department of Agriculture
- 20 Community Strategies Group, Rural Development Hubs: Strengthening America's Rural Innovation Infrastructure, (Washington, DC: The Aspen Institute, 2019).
- 21 Nick Hillman's analysis shows that 171 community colleges are the only broad-access institution in their communities. Hillman defines education deserts as "commuting zones with zero or one public broad-access institution nearby." See Nick Hillman, "Place Matters: A Closer Look at Education Deserts," Third Way, May 21, 2019.
- 22 Kim Parker, et al., "What Unites and Divides Urban, Suburban and Rural Communities," Pew Research Center, May 28, 2018.
- 23 The college wage premium is also lower in rural areas. Having a bachelor's degree versus only a high school diploma increases the average salary by \$22,000 in urban areas but by less than \$14,000 in rural areas. Rural Education At A Glance, 2017 Edition, U.S. Department of Agriculture.
- 24 Ivy Love and Iris Palmer, Community College Baccalaureate Programs: A State Policy Framework, New America, June 1, 2020.
- 25 Rebecca Koenig, "What If Students Didn't Have to Leave Community Colleges to Earn Bachelor's Degrees?" EdSurge, April 13, 2021.

- 26 Casey Leins, "Rural Western States Work Together to Tackle Physician Shortages," US News, August 21, 2019.
- 27 For a full profile of the LSU Eunice and UL Lafayette on-site bachelor's degree program in elementary education, see, see Joshua Wyner, KC Dean, Davis Jenkins, and John Fink, The Transfer Playbook: Essential Practices for Two- and Four-Year Colleges, (Washington, DC: The Aspen Institute and Community College Research Center, 2016).
- 28 For more direction on how to evaluate transfer student outcomes, see William Carroll and Tania LaViolet, Evaluating Transfer Student Success and Equity: A Primer on Quantitative Data for Two- and Four-Year Institutions, (Washington, DC: The Aspen Institute, 2021).
- 29 "Building a brighter future in 'the other California," Focus, Lumina Foundation, 2019.
- 30 Rachel Rush-Marlowe, Strengthening Rural Community Colleges: Innovations and Opportunities, (Washington, DC: Association of Community College Trustees, 2021).
- 31 Emma Garcia and Elaine Weiss, "The teacher shortage is real, large and growing, and worse than we thought," Economic Policy Institute, March 26, 2018.
- 32 Greta Anderson, "Recruiting in Rural America," Inside Higher Ed, August 12, 2019.
- 33 For lessons on how to understand the regional labor market and align programs to those needs, see Brittney Davidson, et al, The Workforce Playbook: A Community College Guide to Delivering Excellent Career and Technical Education, (Washington DC: The Aspen Institute, 2019).
- 34 Gelsey Mehl, John Wyner, Elisabeth Barnett, John Fink, and Davis Jenkins, The Dual Enrollment Playbook: A Guide to Equitable Acceleration for Students, (Washington DC: The Aspen Institute and Community College Research Center, 2020).

Additional References

"A Few Things to Know About Rural America." The Aspen Institute Community Strategies Group. 2019

Anderson, Michele. "Go Home to Your 'Dying' Hometown." The New York Times. March 8, 2019.

Ashford, Elli, and Matthew Dembicki. "An Oasis in Rural America." Community College Daily. November 15, 2018.

Beamer, Laura and Marshall Steinbaum. "Unequal and Uneven: The Geography of Higher Education Access." Phenomenal World. December 18, 2019.

Belsie, Laurent. "This Nebraska Republican says it's time to think big on rural investment." The Christian Science Monitor. April 30, 2019.

Blagg, Kristin, and Victoria Rosenboom. Exploring the Geography of College Opportunity. Washington, DC: The Urban Institute, April 2018.

Chang, Alvin. "Those who leave home, and those who stay." Vox. July 25. 2018.

Conway, Maureen. "Where Labor Supply Meets Labor Demand: Connecting Workforce Development to Economic Development in Local Labor Markets." Washington, DC: Workforce Strategies Initiative at the Aspen Institute, August 2011.

Crazy Bull, Cheryl and Sara Goldrick-Rab. "Tribal colleges, lifeline to rural and disenfranchised Native communities, need our help more than ever." The Hechinger Report. September 3, 2020.

Cromartie, John, Christiane von Reichert, and Ryan Arthun. Factors Affecting Former Residents' Returning to Rural Communities, ERR-185. Washington, DC: U.S. Department of Agriculture, Economic Research Service, May 2015.

Expanding Economic and Educational Opportunity in Distressed Rural Areas: A Conceptual Framework for the Rural Community College Initative. Durham: MDC, Inc., September 2001.

Fallows, James. "The Reinvention of Danville's Downtown: Part 1." The Atlantic. June 13, 2019.

Florida, Richard. "The Talent Dividend in Urban and Rural Areas." City Lab. October 31, 2018.

Fulton, Mary. Community College Bachelor's Degrees: An Update on State Activity and Policy Considerations. Denver: Education Commission of the States, February 2020.

Gordon, Larry. "Too Far Away: Distance is a barrier to bachelor's degrees for rural community college students." EdSource. December 19, 2019.

Henderson, Tim. "Rural Counties Are Making a Comeback, Census Data Shows." Pew Charitable Trusts. March 22, 2018.

Jesse, David. "60 miles from college: Lack of education, a way out of poverty, could 'kill rural America." USA Today. January 27, 2020.

Jones, Carolyn. "The long road to college from California's small towns." EdSource. December 20, 2019.

Kazis, Richard. Community Colleges and Regional Recovery: Strategies for State Action. Washington, DC: Brookings, May 2011.

Kress, Anne M. and Gerardo, E. de los Santos, editors. The Role of Community Colleges in Regional Economic Prosperity. Chandler: League for Innovation in the Community College, 2014.

Krpunick, Matt. "As jobs grow hard to fill, businesses join the drive to push rural residents toward college." The Hechinger Report. January 29, 2019.

Lim, Victoria. "It pays to live and work in these cities." Working Nation. July 24, 2019.

Marcus, Jon, and Matt Krupnick. "The Rural Higher-Education Crisis." The Atlantic. Sept 27, 2017.

McCarthy, Mary Alice and Debra Bragg. "Escaping the Transfer Trap." Washington Monthly. September/October 2019.

McClure, Kevin R, Cecilia M. Orphan, Alisa Hicklin Fryar, and Andrew Koricich. Strengthening Rural Anchor Institutions: Federal Policy Solutions for Rural Public Colleges and the Communities They Serve. Alliance for Research on Rural Colleges. January 2021.

Milligan, Susan. "Brain Drain: What States Stand to Lose." US News. June 12, 2019.

Newport, Frank. "Americans Big on Idea of Living in the Country." Gallup. December 7, 2018.

Oberhaus, Daniel. "How Smaller Cities Are Trying to Plug America's Brain Drain." Wired. August 12, 2019.

Pappano, Laura. "Colleges Discover the Rural Student." The New York Times. January 31, 2017.

Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity. U.S. Department of Agriculture. 2017.

"Rural Education." U.S. Department of Agriculture. Last updated May 28, 2020.

Strategies for Funders: Community Colleges and Rural Development. Durham: The Rural Community College Initiative and MDC Inc., 2002.

The Future of Work in America: People and places, today and tomorrow. McKinsey Global Institute. July 2019.