



Leading Education Innovations in Rural Schools: Reflections from i3 Grantees

A product of the i3 Improving Rural
Achievement Community

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INTRODUCTION

The Investing in Innovation (i3) Improving Rural Achievement Community, a professional learning community of grantees under the i3 program, created this document to share knowledge and experiences related to working in rural districts across the United States. Grounded in field-based experiences and lessons, it serves as a guide for researchers, non-profits, and others interested in partnering with rural districts to develop and implement innovations in K–12 schools. The i3 project directors, project teams, and project evaluators believe their experiences are important to share with the field, and hope to encourage others to pursue research opportunities in rural education. The intrinsic, professional rewards of their experiences are immeasurable, and the potential payoff of the innovation efforts for rural schools and their students in the long-term is significant. The voices of the project directors and their teams echo throughout this document; they honor the hard work of the people in the schools and districts where they were privileged to carry out their i3-funded education innovation and research.

The Investing in Innovation (i3) Fund, established under section 14007 of the *American Recovery and Reinvestment Act of 2009 (ARRA)*, provides competitive grants to expand the implementation of, and investment in, innovative practices that are demonstrated to have an impact on improving student achievement or student growth, closing achievement gaps, decreasing dropout rates, increasing high school graduation rates, or increasing college enrollment and completion rates. Funds supported development, validation, and scaling of innovative practices in K–12 schools. Grants required education entities (e.g., schools, districts, regional service agencies) to partner with the private sector, philanthropic community, and researchers.

As part of the i3 work, the U.S. Department of Education (the Department) funded a technical assistance provider (Westat and its partners) to support, among other implementation activities, the development of grantee communities focused on similar student outcomes or characteristics. The Improving Rural Achievement Community (the rural community), which created this document, is one of these national professional learning communities. Educators, non-profit and private-sector education reformers, and researchers focused on implementing innovative interventions in rural schools participated in the community that formed in 2014. Rural community members met in person once a year at the annual i3 project directors' conference and virtually on a near-monthly basis.

The rural community provided a forum for i3 project staff to share project goals, implementation and evaluation experiences, and strategies for success. Community members agreed to develop a guide that outlined recommendations, based on their collective experiences, for others who seek solutions to critical problems of practice in the rural context. Consequently, the rural community participants embraced the opportunity to contribute to the dearth of literature on how to design, implement, and evaluate innovative projects. Select participants also perceived this guide could inform those who seek to address critical rural education issues in a research agenda the National Rural Education Association¹ recently released. A total of 27 rural community participants working across 24 i3 projects (see Appendix A for full listing) contributed content as active participants in focus groups (via webinar), polls, emails, and/or in-person meetings during the guide development process.

¹Hill, J., & Turney, J. S. (2016). Rural education research: A call to action. *The Rural Educator*, 37(3), v-vii. Retrieved from <http://epubs.library.msstate.edu/index.php/ruraleducator/article/view/360/351>.

Why Innovations in Rural Districts and Schools Matter

Large-scale educational innovations in rural America have been few. Most notable are the 30 National Science Foundation's rural systemic initiatives¹ that focused on reforming mathematics and science education in high-poverty rural areas, and The Rural Challenge that focused on fundamental school-wide reform rather than individual programs and projects.^{2,3,4} Numerous reports have called for greater attention to the needs of students in rural schools,⁵⁻¹² and the unique issues of designing program interventions in rural districts.^{13,14} At issue, much of the literature about education innovation and reform tends to focus on urban areas, with little attention to rural locales. Accordingly, a Brookings Institution report described rural schools as "America's forgotten educational institutions" (p. 10).¹⁵

One could argue that capacity limitations are too numerous in rural school districts to implement meaningful educational improvements.^{7, 8, 13, 16-18} For example, Stephens (1998, p. 59)¹⁸ offered a list of common weaknesses in organizational and structural features of rural districts, including less management and support services, greater per pupil cost, greater number of teachers teaching outside of their field, less competitive salaries and benefits, and limited programs and services for special populations, among others. To add to that list, low population density, social and geographic isolation, and small-scale institutions are additional challenges for some rural communities.

One could also argue that these are the inherent capacity limitations that education innovation designers must consider when determining the feasibility of innovation, the fidelity of implementation, and the sustainability of innovation in rural places. The limitations also will likely be on the minds of education, community, and government leaders when approached to become a partner in developing or scaling up an innovation that is to have value in their rural context.

The concentration of poverty is another important contextual factor in rural areas (Farrigan 2017).¹⁹ People living in poverty are typically clustered in certain regions, counties, and neighborhoods. In rural places with high poverty, a person may face impediments beyond individual circumstances. Concentrated poverty contributes to poor housing and health conditions, higher crime and school dropout rates, and employment dislocations. As a result, economic conditions in high poverty areas can create limited opportunities for residents. Persistent poverty may become a way of life.

Although educational attainment is growing in rural America, attainment varies across demographic groups. Lower levels of educational attainment in rural areas correlates with high poverty and unemployment rates. Marré (2017, pp. 1-6)²⁰ points out:

- The rural-urban gap in college (bachelor's degree) completion is growing,
- Rural women are increasingly more educated than rural men,
- Educational attainment is generally higher for younger-age cohorts,
- Racial and ethnic minorities in rural areas lag Whites in educational attainment,
- Educational attainment relates to economic outcomes, and
- Rural counties with low levels of educational attainment have worse economic conditions.

Undeniably, designing and implementing innovations for public schools in high poverty, rural areas presents a unique challenge for researchers and education practitioners. However, creating and scaling up effective innovations for public education in rural areas remains necessary. But why?

Consider for a moment that in fall 2014, approximately 28 percent of the nation's public schools were located in rural America. More than 9 million students attended these schools, almost one-fifth (18.4 percent) of the nation's students. As such, achieving equity in educational opportunity and economic prosperity for this population is but one reason to pursue innovations in the rural context. The success of these students, their schools, and their communities is critical to the overall success of the nation's public education system, its economy, and the well-being of all who call America home.

Additionally, rural education innovation has a vital role to play in promoting the economic and social vitality of rural America²¹ as local communities transition for success in the twenty-first century.^{10, 22, 23} Partnerships and collaborations are beginning to show promise in addressing some of rural America's most pressing education challenges.^{24, 25} The experiences and lessons shared in the following sections illustrate how the i3 Development, Validation, and Scale-up innovation projects are learning and leading the way.

i3 grantees who contributed to this guide, and those funded under the rural priority, were required by the Department to partner with school districts eligible for one of two Rural Education Achievement Programs (REAP) that represent high-need rural areas: (1) the Rural and Low-Income School Program, or (2) the Small, Rural School Achievement Program. Consequently, the lessons learned and experiences shared hold important potential for those who seek to improve educational opportunities and outcomes in some of America's most impoverished settings.

Document Overview

This guide shares key recommendations for designers, implementers, and evaluators of innovation in rural areas. Although these recommendations may be appropriate for education innovation efforts in any context, i3 grantees working with rural districts experienced these as strong and important needs that required a greater focus than one might find elsewhere. The absence or neglect of one or more of these when working with rural districts might have a greater negative impact on project success than when working in other locales.

Above, the guide provided a brief overview of the rural context. In the following sections, the guide presents recommendations based on experiences in four major areas: (1) Relationship-Building with Rural Districts, (2) Establishing and Maintaining Partnerships, (3) Sustaining the Innovation, and (4) Scaling-Up the Innovation. The conclusion summarizes key points from the guide and leaves the reader with five critical questions to consider before starting a journey of innovation in rural schools and districts.

RELATIONSHIP-BUILDING WITH RURAL DISTRICTS FOR INNOVATION RESEARCH AND IMPLEMENTATION

Implementing innovation in rural districts and schools requires an initial investment of time to learn about the rural setting and to be intentional about building sincere relationships with key stakeholders and community members.

Recognize the Unique Context of Each Rural Community, District, and School

Rural districts and schools offer considerable variation in terms of geography, resources, economy, culture, and racial and ethnic makeup. Even those that appear demographically similar may be extremely different in other ways. For example, two rural districts in Northern Mississippi that the National Writing Project (NWP) partners with were “virtually the same” in terms of geography, size, poverty level, and racial make-up, “yet the culture of the communities could not have been more different. One district’s reputation in the community had to always be maintained by high scores on states tests, [while] the other district had an administration more willing to experiment and take risks” (Tom Fox, NWP). A key part of long-term success may include awareness of and planfulness around such variation.

“Every school district is unique, so don’t assume that just because all districts are rural or small they will have the same priorities, or decision-making processes.”

Susan Wandling
Sonoma State University

While it is true that rural communities share some similarities, each has its own history, experiences, strengths, challenges, and needs. Schools within the same rural district may even have different levels of “rurality” (i.e., some may be more or less rural), and therefore may have varying levels of access to faculty professional development opportunities, instructional resources, internet and other technology supports, administrative supports, jobs for graduates, etc. Kelli Thompson from Kentucky Valley Education Cooperative (KVEC), elaborates: “Within the same school district, there was one school near a central roadway which had significantly more access to community resources and services than another school located on the district border and further away from resources.”

As such, generalizations across all rural districts, or across all schools within a district, can be inappropriate. Instead, acknowledge and seek to understand the individuality and uniqueness of each school and its rural community context.

Understand That Early Stakeholder Engagement and Buy-In is Essential for Success

Gaining access to *any* district or school for the purposes of implementing innovation and conducting evaluation research requires early stakeholder engagement and buy-in. Without it, especially from the outset, it may be difficult to build a solid foundation from which to recruit for, implement, retain and/or expand an innovation—or provide evaluative evidence that the innovation has promise to produce meaningful results in the specific education context in which it is implemented.

Stakeholder engagement and buy-in may be especially significant in rural districts where stakeholders may not have previous experience in developing, validating, or scaling-up an innovation. For some stakeholders,

this “newness” requires project leaders and evaluators to be explicit about the expectations of the innovation and research. Additionally, some rural stakeholders may be cautious about allowing persons or organizations with whom they are not familiar, to have access to school, student, or community information, particularly if they have a negative impression about how the information could be used.

Before approaching stakeholders in rural districts with a proposal for an innovation, project leaders will need to establish a clear rationale for the innovation’s usefulness to the district. District and school personnel will want to know upfront the value of participation. Project leaders, with input from appropriate stakeholders, will need to be able to clearly convey the benefits to the district, its schools, and especially its students. In these early conversations, listening can be more important than talking. Engaging school leaders in conversations about their priorities for their schools provides an opportunity to integrate the benefits of the innovation with desires of school and district leaders. This is particularly important in rural communities where schools and districts may have limited resources and staff, short-lived experiences with previous innovation that provided less value than anticipated, or experiences with project leaders and/or researchers who previously abandoned the community once their work was complete. Keep in mind, though, that “value” can take on many forms, including funds, additional staff, training, professional development, licensure, and student achievement, as examples.

From the start, then, “consider thoroughly which stakeholders should be at the table” (Susan Wandling, Sonoma State University) to build a solid relationship with the community and districts, and ensure successful implementation. Some of the more obvious stakeholders include district and school leaders, teachers and other school-level staff; but other less obvious stakeholders may include influential community members such as the local clergy, retirees, and council or government officials. The Center for Supportive Schools (CSS) realized the value of involving these “less obvious stakeholders” when one of its partner schools “reached out to a local youth pastor and business professor at a local community college and invited them to join their stakeholder team. These partners [ultimately] played an important role in establishing credibility for the initiative within the school and local community” (Sherry Barr, CSS). A simple inquiry such as “can you suggest people we should talk to?” could reveal names of key people who should be members of the local project team.

“It’s really important to connect with and meet face-to-face, if possible, with all of the players who have an important role to play in a project; so the superintendent, the assistant superintendent, the principal, [and others in leadership] within the school. It’s also important to talk with some of the teachers...”

Susan Savell
Spurwink Services, Inc./BARR Center

Also keep in mind that educator support is particularly important in rural schools, given the community of teachers might be smaller and more intimate, and therefore, one influential person can sway the entire group with either positive or negative communications and unanticipated impacts. i3 grantees found that the most effective recruitment and implementation happens when both district and school leadership and school staff are included in the decision to participate in an innovation. The greater the buy-in at *both* the district and school level, the greater the chances of participation and success.

However, recognize that rural teachers are more likely to be stretched professionally, as they are tasked with multiple responsibilities and competing priorities on a daily basis. So, as a project leader or evaluator,

understanding that your priorities may not be those of the teachers at any given time is important, and inattention at a given moment does not necessarily mean that the stakeholder group is unsupportive.

Consider Community Partnerships

When project leaders and evaluators approach rural school districts, they may need to think more broadly about who the key stakeholders or potential partners are for innovation implementation. As noted earlier, they may need help and support from an array of community members, such as school board members, community organizations, local churches, local businesses, parent-teacher associations, community colleges, mental health and service providers, and local clubs and networks; support from district and school personnel may not be enough for project success. Rural communities are often close-knit, so various community members and organizations may have influential connections to the schools within a district.

When considering potential community partnerships, project leaders need to consider reasons they want a community partnership and what they want the community partners to do. Clearly define the partnership expectations, as “people are more likely to come together if they have a clear understanding of what it is they are being asked to do” (Hobart Harmon, Virginia Advanced Study Strategies, Inc.). Also, keep in mind that partners are more likely to work on behalf of the innovation if they perceive their goals and project goals or outcomes are complementary.

The Association of Alaska School Boards’ Approach to Partnership: An Exemplar

The Association of Alaska School Board’s Culturally Responsive and Embedded Social and Emotional Learning (CRESEL) program emphasizes the traditional values of the communities in which it works. As a part of the program, the grantee has conversations with community members about how CRESEL connects to traditional values, with the hope that community members will view their work not as “separate or different, but as another way to talk about what communities want for young people” (Heather Coulehan, The Association of Alaska School Board).

The grantee collaborates with First Alaskan Institute, which has existing relationships with the grantee’s target communities. In partnership with the Association of Alaska School Boards, First Alaskan Institute modified one of its existing protocols to facilitate conversations concerning racial equity, to focus instead on discussions about cultures in schools. With the protocol, each district participating in the CRESEL program is hosting a series of conversations with its respective communities about culture in school, and subsequently building relationships with the communities. School planning teams use the feedback from these conversations to guide CRESEL program efforts.

ESTABLISHING AND MAINTAINING PARTNERSHIPS WITH RURAL DISTRICTS

Once a district has agreed to take part in an innovation, formalizing the partnership facilitates a clear understanding of districts’ and schools’ needs and capacities, ensures clear communication in both directions, and maintains support and buy-in for the innovation. A formal agreement reinforces a relationship of trust and respect with the districts and schools.

Assess Rural Districts' Assets and Needs

Acknowledging the individuality of rural districts and schools lends itself to understanding the context and capacity of each. Prior to any implementation efforts in rural districts and schools, it is essential to research the districts of interest and conduct some initial assessments (e.g., needs assessments, readiness assessments) to determine whether the district has the resources and capacity to complete the work; and generally, whether the site is a good fit for the innovation. When conducting an assessment, it is important to understand both the assets as well as the needs of the community. For example, make sure to understand the existing resources, people's skill sets, and initiatives already in place to advance quality education in the rural setting. Recognize that district and school personnel are experts about their communities, districts, and schools, so talk intentionally with them about what each brings to the innovation.

“When we [won] the grant, it was very important to go in and talk to each of the superintendents in the 18 districts we were working with because they wanted to make sure we understood [the project] could not be a one-size-fits-all solution, even though we had a core thing that we were going to do. How [the project] was actually rolled out in each of the districts could be a little different based on what [the superintendents] knew about their communities.... We used the conversations with the superintendents to make sure [the intervention] was tailored to the [rural districts'] needs.”

Claudia Miner, Waterford Institute

Collaboratively, with key district personnel, assess the fit of the innovation with the overarching goals and vision of the district. Engage in conversations about alignment of the innovation with the district's needs, and identify opportunities to tailor the innovation to them. This might require the project leaders and evaluators to discuss non-negotiables and areas of flexibility in implementation of project and evaluation plans. Also, ask district leaders to discuss factors that enable or hinder implementation, such as staff capacity, availability of time, and existing initiatives or demands on time. Engage also in honest conversations about district, school, or community policies that might limit the success of the innovation. For example, policies about internet use or restrictions in the district and schools can be a barrier to successful implementation (see “Assessing Rural Districts' Capacity for Technology-Based Innovation” below). The tenor of these conversations sets a tone of respect for the work and district personnel, and contributes to the innovation's success.

Once project leaders and developers discern that a district and its schools are a good fit for an innovation, it may be necessary to conduct *another* assessment to decide where to begin the work in the district. For example, Linda Friedrich from NWP shares:

“In the first six-month period [of the project], our local sites conducted an assets and needs assessment process that varied from place to place. It involved things like sitting down in a coffee shop in the town and talking with teachers about what they were already doing, what questions they had, and those kinds of things. So [we built] relationships [and asked] very specific questions to know what people were already doing and what they hoped to get from the project.”

However, if the innovation is not a good fit for the district, or the timing of it is not optimal, project leaders should continue to engage and communicate with the district to maintain a relationship, in the event that another opportunity comes along that is better suited for the district's context and capacity.

Assessing Rural Districts' Capacity for Technology-Based Innovation

Multiple i3 rural grantees implement innovation projects that incorporate technology (e.g., tablets, web-based programs and professional development, software, etc.). However, as grantees have learned, districts', schools', and innovation participants' level of experience with technology, as well as rural districts' capacity to manage the technology, varies. Some rural communities and school districts have high-quality internet accessibility and connectivity, and the bandwidth capacity to support the use of technology. However, other districts may struggle to gain access to the internet and other technology, and do not yet have the capacity to implement a necessary technology feature of the innovation. Accordingly, i3 grantees recommend that project designers factor into their implementation plans an assessment of the participants' levels of experience with technology, and the districts' capacity to implement innovations that rely heavily on technology.

Developers might also consider piloting technology with a small group first to make sure it works, and to determine any other barriers that may hinder large-scale use of the technology. It is additionally useful to become familiar with any district or school-level policies that may hinder technology-based implementation and other "technology nuances that may need to be planned for" (John Proffit, KVEC). For example, Sonoma State University ran into the issue of each school having different policies and restrictions regarding internet use.

If an innovation requires the use of technology, and the culture of the community and district is not one of technology use, it may be difficult for personnel, teachers and school staff, and/or students to implement innovations that rely heavily on technology. If the district or school is still willing to participate in the innovation, despite a lack of technology use and experience, their involvement might require training or ongoing support on the technology, which the project team may not have initially planned to do. This is an additional consideration during initial conversations with districts/schools.

Clearly Communicate Innovation Requirements and Expectations

Once a partnership is established with rural schools and districts, it is imperative that project leaders clearly articulate expectations, and be transparent with partners about what the innovation entails, including the time commitments. It may be necessary to tailor communication so that all involved stakeholders (e.g., district personnel, school personnel, parents, and partner organizations) understand their roles and responsibilities. Remember that rural districts may have had fewer opportunities than other types of districts to participate in education reform efforts in the past; therefore, clearly communicating expectations and requirements is especially important, as it helps to build the shared understanding necessary for implementation.

District- and school-level staff should have a clear understanding of evaluation requirements and the time and effort necessary for a credible evaluation. Be sure, also, to untangle the evaluative requirements and the project's programmatic components. Schools may have the capacity to participate programmatically in an innovation but may not be able to meet the requirements of the evaluation. Clear communication and understanding of the evaluation is especially important when researchers are implementing a rigorous evaluation, such as a randomized controlled trial.

"Because we were randomizing at the district level, both the local Writing Project sites and the researchers, [as well as national staff], really talked with districts about the implications of the research early on. We worked closely with [the evaluator] to develop language that wouldn't be too [jargon-rich] and to explain why [we were randomizing and] what randomization meant. But we also had frank conversations with districts, and if a district said, 'look we cannot do this because we're under so much pressure to raise test scores, and we can't take the risk of being randomized,' we really took that seriously and moved to the next district."

Linda Friedrich, National Writing Project

Understand the Complexities of Conducting Research in Rural Communities

Conducting rigorous research in rural districts and schools can be a major challenge. Many school systems may not be familiar with experimental and quasi-experimental research designs. However, these approaches are important in educational research because they help determine whether an intervention caused the intended impact. Little research focused on rural settings is currently included in the What Works Clearinghouse (WWC) (<https://ies.ed.gov/ncee/wwc/>), a repository that rates the quality of educational research designs according to a set of publicly available, rigorous standards. Increasingly, the Department prefers these types of research methods, particularly in competitive grant projects.

Evaluators attempting such rigorous experimental and quasi-experimental research in rural districts and schools may encounter challenges such as increased costs, difficulty of randomizing in low population areas, or building trust and understanding between researchers and participating schools and districts. These challenges also make it difficult for the evaluators to conduct research that will meet the WWC design standards. Without such evaluation designs presented in the original project proposal, a project’s chances for funding may be reduced. Consequently, Table 1 presents some of the common challenges when conducting rigorous research in rural districts and some of the corresponding implications.

It is essential to clearly communicate the role of the independent evaluation and the researchers, as well as any other innovation requirements and expectations. A common way to delineate the roles and responsibilities of all involved parties is via a written partnership agreement, such as a Memorandum of Understanding (MOU). The agreement should include expectations for the innovation team, participating districts and schools, the evaluator, and any other key team members. A formal agreement signed by each partner indicates commitment and understanding from each and empowers each partner to hold the others accountable.

Table 1. Challenges in conducting rigorous research in rural districts and schools

	Challenge	Implications and considerations of the rural context
Design Challenges Faced Primarily By Rural Schools	<ul style="list-style-type: none"> • Too few schools, teachers, or students in a district to randomize at these levels 	Consider randomization at the district level as a potential solution, while recognizing that costs may be higher.
	<ul style="list-style-type: none"> • Distance to and between study sites increases costs 	Traveling to rural and rural remote locations costs more and increases the time associated with conducting the research.

Table 1. Challenges in conducting rigorous research in rural districts and schools—continued

	Challenge	Implications and considerations of the rural context
Common Design Challenges with an Additional Degree of Difficulty in Rural Communities	<ul style="list-style-type: none"> Superintendents/ education leaders can be reluctant to allow randomization within district and/or within the school 	<p>While this challenge is not uncommon in education research, superintendents’ and education leaders’ approval for randomization within districts and schools can be more complex because of close community ties.</p> <p>Although such pressure occurs across both rural and non-rural districts/schools, the rural setting is uniquely challenging because of the close community and personal connections of the teachers, leaders, and parents/community. The appearance of selecting some grades/students/teachers/schools over others in a rural setting can present public relations and political difficulties that manifest in a more profound way.</p>
	<ul style="list-style-type: none"> Teacher turnover 	<p>While this is challenging in education research in general, teacher turnover in the rural setting may mean that a higher percentage of participants (e.g., teachers participating in a professional learning intervention) in a multi-year study may leave, thereby reducing its potential impact and increasing attrition, which could undermine the quality of the inferences that can be drawn. Under such circumstances, researchers may have to start over, thus complicating the likelihood of demonstrating impact. Consider planning for teacher turnover from the outset and identify mitigation strategies to minimize negative impacts for the project.</p> <p>In larger settings, researchers may be able to conduct analyses to test how teacher turnover affects the intervention; but with small numbers of teachers, such analyses may not be meaningful.</p>
Common Design Challenges with an Additional Degree of Difficulty in Rural Communities (continued)	<ul style="list-style-type: none"> Recruitment challenges and heavier investment in information-sharing/educational campaign 	<p>Rural districts are less likely to have participated in research studies in the past. They may be less familiar with the positive aspects of participation and/or may be unduly intimidated by the prospects of participation. Further, rural districts are less likely to have designated personnel experienced in research owing to less funding within the district; as a result, researchers need to spend more time explaining the research study, its processes, and the importance of fidelity throughout the project.</p>
	<ul style="list-style-type: none"> Internal stakeholder support is essential for success 	<p>Close-knit communities are a trademark of rural areas. Although this is one strength associated with rural communities, it can potentially be a barrier to participation in research. Researchers often need one or more local advocates or team members in order to recruit districts and maintain commitment throughout the project.</p>
Design Challenges Not Distinctly Rural	<ul style="list-style-type: none"> School governance systems (federal, state, district, school) 	<p>Decisions at any level can affect the research. However, projects working in rural districts may be dealing with several districts and schools, perhaps spread across multiple states. Dealing with increased numbers of governance structures increases time and costs required for project recruitment, management, and implementation. Knowing this in advance allows researchers to plan ahead and identify strategies for how to minimize costs.</p>

Maintain Support and Buy-In for the Innovation

Early support and buy-in is critical for project success, but maintaining that support and buy-in is just as important. As such, stakeholder engagement and communication are ongoing efforts. Continual, predictable engagement and communication, such as monthly check-ins, keep project participants not only informed, but also in touch with and committed to the innovation.

Ongoing engagement is also beneficial in the event of turnover of district and administrative staff and educators, which can be a challenge in some rural districts. To elaborate, Lynn Cominsky from Sonoma State University shared that administrative turnover was a significant challenge for the project, and advises that “it takes continual effort to bring new administrators up to speed, especially since it’s hard for them to embrace something introduced in the previous administration. That effort includes insistence on face-to-face meetings, and bringing all stakeholders to the table for each district, including teachers and counselors.”

One of the fundamental ways to maintain support and buy-in is by being transparent about implementation progress, successes, and challenges. Communication might include meaningful updates on progress toward the goals of the innovation, early evaluative research findings, survey results, benefits to the district and schools, etc. It is important to present these items in an understandable way for all stakeholders. It is also important that the researchers conducting the independent evaluation welcome feedback and input of stakeholders, particularly because “working with [districts and] schools to implement a multi-layered program and also [to] participate in rigorous evaluation is a lot to ask of schools” (Sherry Barr, CSS). Sherry Barr further explains that for CSS, “regular check-in conversations, both in-person and by phone, with a CSS program consultant, school administrator, and the evaluator have helped ensure that key information is communicated in a timely way, while not overwhelming schools partners with too many details. These regular check-ins enable CSS to provide technical assistance and coaching when there are implementation challenges and have contributed to strong working relationships among project partners.”

In addition to maintaining relationships with existing stakeholders, project leadership and evaluators should consider new stakeholders to engage as the project develops. Often groups or persons emerge as stakeholders during the project implementation.

It may also be useful to identify liaisons or champions, with ties to or established relationships with districts and schools, who can advocate locally for implementation of the innovation (See some examples in “i3 Grantees Rely on Program Liaisons and Champions to Engage Stakeholders” below). Especially at the school level, the person serving in this role should be well respected by school staff, and a genuine champion of the innovation. School administrators and superintendents may be especially valuable champions, particularly in rural districts where the communities are smaller and interdependent, as they may have greater influence both inside and outside of the district and school setting.

“We hold quarterly leadership team meetings to discuss implementation of the project. Topics include successes, challenges, new developments in the intervention, and the evaluation. Agenda items also include a follow-up on school/teacher needs or ongoing issues from the prior meeting. Regional representatives speak on behalf of the schools and their leadership, the intervention developer, and representatives from the evaluation team.”

Dessie Bowling, KVEC

Additionally, a key way to retain districts, schools, and educators in an innovation is to bring them together to make professional connections and build relationships. These connections are particularly important in rural districts because “often ... [rural] people feel disconnected” (Heather Coulehan, Association of Alaska School Boards) from the larger state and national conversations. Some of the ways to facilitate these connections are through regional or national gatherings and professional learning activities. As an example:

- The CRESEL districts and statewide partners participate in a professional learning community that meets regularly to learn from each other as they co-create culturally responsive SEL with their communities.
- Sonoma State University facilitates five 1-day institutes, rotating through various high schools each year, which allows teachers to connect and see each other’s schools.
- Advancement Via Individual Determination (AVID) provides opportunities for collaboration and sharing by establishing vertical teams of teachers and administrators from middle school, high school, and institutions of higher education who meet regularly to share best practices. These opportunities “helped schools [to] stop working in isolation, particularly the leadership who might have been the only middle school or high school principal in their school district” (Sarah Newman, AVID).

i3 Grantees Rely on Program Liaisons and Champions to Engage Stakeholders

The Waterford Institute provided funding to the rural districts in which it works to pay rural coordinators to represent the program and support schools. AVID trains a district representative to support schools, while the Association of Alaska School Boards has a “champion” in each of its partner districts. NWP requires each of its local affiliates to select a local site coordinator to establish relationships and support districts, while Spurwink Services, Inc. (BARR) requires each local school to designate a BARR coordinator to work directly with teacher teams and administrators.

Susan Savell from Spurwink Services, Inc./BARR Center, additionally shares:

- “The way we’ve been retaining schools—or keeping them engaged in a continuous learning experience—has been through providing national gatherings twice a year. We bring together the schools that are implementing BARR as part of our development and validation grants and provide opportunities for them to connect with each other, sharing information, strategies and hearing from key thought leaders in the fields of school transformation and social emotional learning. BARR administrators, teachers and coordinators learn from each other and have a chance to observe three of the critical components of the BARR model in action at the host school.”

Technology may also offer other means to build connections and a sense of community among educators involved in an innovation. For example, if it is not feasible (e.g., financially, geographically) to bring educators together regularly, video conferences or online communities may be a way for teachers to meet and offer each other support. However, the use of technology depends entirely on the districts’ capacity to support it.

SUSTAINING INNOVATION IN RURAL COMMUNITIES

Sustaining innovation is a challenge for all types of districts—rural, suburban, and urban alike. Sustainability in rural districts, though, may be especially difficult because many of them have fewer resources available and therefore have less flexibility to “shift resources over to cover what a grant might have been covering” (e.g., program costs, staff, materials, technical assistance, etc.) (Julie Edmunds, SERVE Center). Further, some rural districts and schools are losing student populations, which results in less funding overall. As a result, it is important to start thinking early about ways to sustain an innovation before external funding and/or organizational support ends.

Start With the End In Mind

From the beginning of an innovation, it is important to think about the structures, potential funding, and relationships and partnerships that need to be in place to continue implementing an innovation with fidelity. Sustaining innovation without external funding is particularly challenging for rural districts and schools with limited resources. Funding from the business community, which may be scattered across a large area, and philanthropic support may also be limited; so coming to rural districts with sustainability embedded in the innovation design can be especially attractive.

With this in mind, CSS’s approach to sustainability is “to identify individuals from across the school community to serve on a stakeholder team. The role of the stakeholder team is to support program implementation, troubleshoot obstacles as they arise, and begin to plan and prepare for sustainability even before implementation begins.” The CSS stakeholder team not only discusses sustainability at the beginning of a school partnership, but also “guide[s] schools through implementation decisions with an eye toward sustainability” (Sherry Barr, CSS).

Build District and School-Level Capacity

Outside of external funding, one way to sustain an innovation over time in rural districts is to equip districts, schools, and/or educators with the tools and skills to carry the innovation forward; simply put, build local capacity. Project personnel or teams might build capacity at the school sites by establishing systems and processes within the sites that educators can adopt and maintain independently after the project formally ends; making these practices “business as usual.” The teams might also support the development of school leaders to carry the innovation forward. NWP learned early on that “having teacher leaders in the school who are enthusiastic about the program is the thing that sustains the work” (Tom Fox, NWP), so local NWP sites intentionally identify and nurture teacher leaders. Program developers might also consider providing “a rich set of materials” (e.g., rubrics, professional development tools, program manuals, assessments tools, etc.), available at no cost, as a way to support sustainability. This is a practice NWP also employs to support sustainability. It makes pedagogical, professional development, and formative assessment materials publicly available to its partners.

Align the Innovation With District Priorities

Have conversations with district leaders about goals and priorities early on, not only to determine fit and alignment of the innovation, but also to work toward sustainability. An innovation that aligns well with the district's vision can be incorporated more easily into the district's strategic education plan. Additionally, be aware from the beginning of any existing and relevant district policies in place that might affect sustainability and work within that framework. While aligning the innovation with district priorities is good practice in any locale, it is especially important in rural districts where fewer resources can limit what districts can do for the long term.

Consider Adapting the Innovation

If a rural district finds value in an innovation, it might only adopt the practices or components of the innovation that are feasible for it to maintain, due to limited resources and availability. It may be necessary, then, for project leaders to consider ways that districts and schools can adapt the innovation, rather than fully adopt it, and sustain the components of the innovation that are most beneficial to the district. For example, Sonoma State University adapted its two-year Learning by Making curriculum by loosening its course requirements and allowing teachers to choose experiments that align with the field of science in which they have received certification and are most comfortable implementing.

CSS additionally demonstrates that it may be necessary to adapt an innovation to accommodate other limitations, such as time constraints. A key component of its Peer Group Connection (PGC) high school transition and peer leadership model is 45-minute group mentoring sessions. However, to accommodate this requirement, one of its school partners would have had to “dismantle their master schedule” to fit the 45-minute session into the school day. However, CSS learned that the school had a 30-minute advisory period built into its existing schedule, and worked with school staff to adapt the weekly mentoring sessions so that they were offered during two 30-minute periods. The grantee noted that by adapting a key component of its model, it “built credibility with [the school] partner and also planned ahead for long-term sustainability by integrating the program into the existing school infrastructure” (Sherry Barr, CSS).

SCALING UP INNOVATION IN RURAL COMMUNITIES

When there is clear evaluation evidence that an innovation is working in one setting, scale-up to additional sites and participants may be desirable. However, expanding an innovation does not have to be on a large scale, such as national. Scale up could mean expansion to more districts within the same state or across multiple states, or to more schools in the same district, or to more participants in the same school. Whatever the case, potential sites and partners want to ultimately know that the innovation is worthwhile and will yield better results for students and communities. Rural districts and schools, as potential sites for scaling, are no different; rural education leaders want to know that the effort has worked in other places, preferably places that are similar to them.

In January 2017, the i3 Scale-up and Sustainability community released a paper titled, “Scaling Up Evidence-Based Practices: Strategies from Investing in Innovation (i3),”²⁶ which shared reflections from nine i3

grantees, all of whom have expanded the reach of their respective innovations. Many of these grantees operate in rural contexts; in fact, two of the grantees are contributors to this guide. In the scale-up paper, the grantees' experiences suggested four strategies for scaling up evidence-based practices: (1) use multiple methods to establish buy-in; (2) build a regional and national infrastructure; (3) adapt practice based on evidence; and, (4) plan for sustainability from day one. These strategies align well with recommendations the rural community has outlined throughout this guide, yet special considerations may apply when applying these in the rural context. Considerations for sustainability in rural areas were presented in the prior section, and suggestions for using multiple methods and capitalizing on regional and national infrastructures are presented next.

Use Multiple Methods to Establish Buy-In

As noted above, stakeholder buy-in is essential at every stage of innovation implementation; rural is no different. It is the first step to establishing a partnership with any district or school, it is necessary to maintain the partnership, and it is necessary to sustain and expand partnerships. The scale-up paper emphasized that in order to establish buy-in and get to the depth of change and ownership necessary for scale-up, grantees used multiple methods to establish buy-in, including leveraging evidence of effectiveness and storytelling, two factors the rural community also identified as important.

Key stakeholders and potential sites are more likely to be willing to participate in a project if there is evidence that it works or has yielded positive results in another rural district. Accordingly, share outcome and impact data (e.g., student achievement data, cost-effectiveness, increased participation) with rural sites and stakeholders to help demonstrate the value of the innovation to the district, schools, and community. As an example, the Waterford Institute received scale-up support from its state legislature by proving that it could get rural districts to participate in its program at the same rate as non-rural districts in the state.

Initial momentum for UPSTART's innovation in rural sites was made possible by the i3 grant. When the grantee expanded its UPSTART program from 150 students to approximately 920 students the first year of the i3 grant, it shared its progress with the state legislature and provided evidence that rural schools were interested in the program. The state legislature subsequently provided the grantee additional, one-time funding (\$1 million) "to see if [the increased rates of participation] was an aberration or if we could actually continue to get that kind of participation." When rural participation persisted, the legislature enacted legislation to provide ongoing funds to continue to expand the program to more students in rural schools. Finally, in a 2017 statute, the legislature deemed "rural" student recruitment as a high priority. Statewide, the UPSTART program has gone from serving 6,000 students to over 14,500 students in the 2017–18 school year.

Sharing success stories among peers can serve as an effective scaling strategy in rural districts and schools in particular. Rural leaders want to hear evidence of effectiveness in other districts that they identify with as similar to themselves. Members of the rural community learned that peer-to-peer sharing, or word-of-mouth marketing, was an especially effective scale-up strategy in rural districts and schools. Generally, educators tend to have interest in a project or concept more readily when other educators share their experiences and validate success of the innovation; but this is especially true in the case of rural educators. A project has more credibility when "those doing the work" support and encourage others to embrace the work. Susan

Savell from Spurwink Services, Inc. (or the BARR Center) elaborates: “Hearing from peers and watching peers do the work inspires educators and gives them the courage to risk the innovation. BARR can provide the research data, but schools often don’t decide to do it until they talk with other BARR educators or see it in action.” Accordingly, it works closely with “a school, a superintendent, and two principals” to advocate their innovation by “open[ing] their schools to other educators who want to see the key components of the BARR model in action, such as teacher team meetings.”

Accordingly, project leaders should consider identifying champions who can confidently share stories both within and outside of their districts to garner buy-in and recruitment for scale-up. It might also be useful to provide materials (e.g., brochures, one-pagers) to potential district partners that include excerpts from educators who demonstrate the success and value of the innovation, as well as contact names and information of individuals who are willing to speak with potential partners.

The importance of this “word-of-mouth” advertising in rural does not mean, however, that project leaders should dismiss direct outreach to districts via phone calls or emails to key district personnel. Further, project leaders should also look into regional networks and other informal networks to establish relationships and promote the innovation.

Capitalize on Regional and National Infrastructures

Grantees who contributed to the scale-up paper reported having leveraged or established regional infrastructures (e.g., regional training centers, regional staff) to support implementation, build capacity, ensure integrity of the innovation, and adapt innovation to local context and need. Such leveraging and capacity-building is especially important in rural education, where scaling opportunities within districts are limited relative to what they are in large metropolitan areas. Generally, program developers built geographic concentration of local resources and expertise, or relied on existing networks to support expansion.

For example, NWP approaches sustainability and scale-up via university-based regional sites that provide technical assistance and professional development to schools and educators within a designated region. Thus, they establish relationships with districts of all locale types, including rural, and can build on those relationships within regions and the nation to support scaling. Additionally, KVEC leverages the regional cooperative service center structure to support and drive innovations across districts in Kentucky. This collaborative also gives teachers opportunities to connect with colleagues doing similar work in different contexts. Finally, BARR leveraged the existing network that KVEC offered to expand its work into the State of Kentucky. In looking ahead, the project directors aim to recruit districts in partnership with organizations such as the National Rural Education Association (NREA), which is a membership-driven organization that represents rural practitioners nationwide.

CONCLUSIONS

The i3 grant program serves as an example of how innovators and evaluation researchers can develop, validate, and scale-up improvement efforts that advance important educational outcomes for rural students and their communities. Achieving success may require confronting challenges of working in rural contexts such as: remote locations, high costs to implement innovation and evaluative research, inadequate human and fiscal resources, skeptical community members, and small populations living in impoverished circumstances.

The facilitated i3 rural community provided a unique opportunity for grantees to share their collective experiences, best practices, and lessons learned. It also provided close to 30 community members across 24 projects the opportunity to collaborate and contribute to this guide. The guide offers some key recommendations for the rural education field and those who seek to create innovations with meaningful value for rural schools and their communities. These include:

- Recognize that each rural community, district, and school is unique; early stakeholder engagement and buy-in is essential, and strong community partnerships are key supports for project success.
- Carefully assess a district's assets and needs. Clearly communicate the innovation's requirements and expectations, as well as the understanding that more attention may be required than expected to maintain support and buy-in for the innovation.
- Expect that sustainability of the innovation will be a huge challenge for small rural school districts, particularly if the district is losing student population, and consequently, state and or local revenue. Project leaders should embed sustainability considerations in the innovation's design. Sustainability is most feasible if the innovation aligns with existing district priorities and policies.
- Anticipate that many rural school districts with vast capacity limitations will choose to sustain key components of the innovation that are most feasible and beneficial to the district, rather than fully adopt all elements of the innovation.
- Present clear evidence that the innovation and/or its components yield meaningful positive results in any scale-up strategy. Recognize scale-up could mean expansion to more districts within the same state or across multiple states, or to more schools in the same district, or to more participants in the same school. Peer-to-peer sharing can be an effective scale-up strategy in small rural places.

These recommendations offer encouragement and caution to innovators who seek to design and implement educational innovations in rural places. Seeking to understand answers to the following five questions could help guide planners toward a successful innovation journey in a rural context:

1. How well do intended outcomes of the innovation align with needs for educational improvements in the targeted schools and school districts?
2. How does the project's implementation plan address weaknesses in school district capacity to create an effective implementation site?

3. How does the project's implementation plan and communication strategy build stakeholder involvement to include more than school system personnel as key advocates for the innovation?
4. What evidence from the project's evaluation plan will be most valuable and credible to practitioners and policymakers when asked to sustain the innovation?
5. How do project activities incentivize scale-up of the innovation in additional rural schools and communities?

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APPENDIX A: GUIDE CONTRIBUTORS IN i3 RURAL COMMUNITY

Table A-1. Guide contributors in i3 improving rural achievement community, by grantee project

Grantee & Contributors	i3 Project	Project Purpose
<p>Advancement Via Individual Determination (AVID) Center <i>Sarah Newman</i></p>	<p>AVID Central Florida Collaborative</p>	<p>The project is designed to create a collaborative of secondary schools and colleges in a rural area that integrates college readiness best practices, rigorous coursework, and student support strategies to significantly improve student achievement and success, using the AVID College Readiness System as a foundation.</p>
<p>Association of Alaska School Boards <i>Heather Coulehan</i> <i>Lori Grassgreen</i></p>	<p>Culturally Responsive and Embedded Social and Emotional Learning (CRESEL)</p>	<p>The CRESEL program aims to improve school climate, teacher practices, student social and emotional skills, and academic achievement through integrating a culturally responsive process and school-wide social-emotional learning (SEL) programming, changing teacher and staff practices, and enhancing district SEL infrastructure.</p>
<p>Center for Supportive Schools <i>Sherry Barr</i></p>	<p>Improving Educational Outcomes in High Need, Low-Income Rural High Schools in North Carolina through a High School Transition and Cross-Age Peer Mentoring Model</p>	<p>The Center for Supportive Schools (CSS) is partnering with high schools in rural North Carolina communities to implement and rigorously evaluate a school-based, high school transition and cross-age peer mentoring program known as Peer Group Connection (PGC). PGC taps into the power of high school juniors and seniors to create a nurturing environment for incoming freshmen. PGC is designed to improve student's social and emotional learning skills and increase student engagement/connectedness as pathways for improving student achievement.</p>

Table A-1. Guide contributors in i3 improving rural achievement community, by grantee project—continued

Grantee & Contributors	i3 Project	Project Purpose
Jacksonville State University <i>Lynn Garner</i>	Validating the Collaborative Regional Education (CORE) Comprehensive Model: Technology in Rural Classrooms	The project is designed to expand project-based learning and technology in rural classrooms to improve the college and career readiness of eighth-grade and high school students. To do so, the project provides professional development to teachers and dual-enrollment scholarships to students.
	Validating the Collaborative Regional Education (CORE) Comprehensive Model in Rural High Schools	CORE supports teachers and administrators in transforming classrooms and schools by integrating technology and active learning methods in classrooms. In addition, the CORE model provides classroom support, partnership building, college readiness, and change-management support.
Kentucky Valley Educational Cooperative <i>Andie Phillips</i> <i>Dessie Bowling</i> <i>Kelli Thompson</i> <i>John Proffit</i>	Career and College Readiness Transformations	The project provides innovative services addressing enhanced STEM education for rural students. These services will increase college access and success for all students, including those with disabilities and limited English proficiency.
KnowledgeWorks <i>Courtenay Nantz</i>	Creating a Corridor of Innovation: Changing the Equations of Success in Rural, High-Need High Schools	The project is designed to establish two STEM-focused New Tech Network schools in high-need RLIS-eligible high schools in high-minority, high-poverty, economically underdeveloped rural communities in the I-95 corridor of South Carolina.
Montgomery County Schools, NC <i>Beth Lancaster</i>	ACCESS: A Culture Creating Effective Systems for Success	The project is designed to implement a districtwide redesign of educational practices by embedding a culture of technology-based education by providing high-quality teaching and learning resources to engage students and allow access to support anytime, anywhere, by expanding the reach of effective teachers through connected teaching, instruction redesign, high-quality professional learning, and creating a systematic process for real-time teacher and student access to online assessment data to improve instruction and monitor progress in meeting college- and career-ready standards.

Table A-1. Guide contributors in i3 improving rural achievement community, by grantee project—continued

Grantee & Contributors	i3 Project	Project Purpose
National Writing Project <i>Linda Friedrich</i> <i>Tom Fox</i>	The National Writing Project (NWP) College – Ready Writers Program	The project is designed to offer professional development for rural middle- and high school teachers to implement writing instruction aligned with the Common Core standards.
	Scaling Up the National Writing Project’s College-Ready Writers Program: Expanding Access, Reach, and Leadership for Ongoing Improvement	The project will offer professional development, instructional resources, and formative assessment tools focused on improving source-based argument writing to rural English Language Arts teachers in grades 4-10.
Northwest Colorado BOCES <i>Paul McCarty</i>	System for Educator Effectiveness Development (SEED)	The System for Educator Effectiveness Development (SEED) project is designed to ensure that teachers get valuable professional learning opportunities that are linked to the teacher evaluation system. SEED includes an interactive online bank of resources and semester-long teacher learning communities that are delivered using a blended format.
SERVE Center <i>Julie Edmunds, Evaluator</i>	<ul style="list-style-type: none"> • North Carolina Investing in Rural Innovative Schools • Early College Expansion Project • STEM Early College Expansion Project • Early College Strategies for All • Central Ohio Career and College Readiness Partnership 	
Sonoma State University <i>Lynn Cominsky</i> <i>Susan Wandling</i>	Learning by Making: STEM Success for Mendocino County	The project is designed to develop a 2-year science-driven, computational-thinking, integrated-based science, technology, engineering, and mathematics curriculum that improves mathematical and science proficiency.

Table A-1. Guide contributors in i3 improving rural achievement community, by grantee project—continued

Grantee & Contributors	i3 Project	Project Purpose
Spurwink Services, Inc./BARR Center <i>Susan Savell</i>	Building Assets Reducing Risks: A Proven Strategy to Increase Student Achievement by Improving Teacher Effectiveness	The project is supporting 11 randomized controlled trials of the BARR model in rural, urban, and suburban schools across the country, and BARR implementation in an additional 35 schools. The project will impact at least 17,000 students and over 800 teachers, the majority of whom are from rural locations, and test a broad adoption strategy for the BARR model.
	Same Students. Same Teachers. Better Results. Scaling-Up the Validated BARR Model	The project is supporting a randomized controlled trial study of the BARR model in 66 schools, and BARR implementation in an additional 50 schools (116 total), impacting an estimated 146,250 students and 11,600 teachers. This growth will occur through establishing infrastructure and staffing in regional centers to serve as hubs for expansion across the country to schools that need it the most.
The Ohio State University <i>Emily Rodgers</i> <i>Jerry D'Agostino</i>	Reading Recovery: Scaling Up What Works	The project is designed to scale to struggling schools an evidence-based short-term literacy intervention for early readers. Teachers in rural, suburban, and urban settings are supported to implement the intervention with fidelity, and first-grade students are supported to succeed academically in later years.
	Improving Literacy Outcomes for Beginning Readers with Disabilities	The project is designed to create a model enabling students in rural, suburban, and urban settings with learning disabilities, ages 6-9, to be transitioned to regular classrooms instead of receiving reading instruction in restrictive settings.

Table A-1. Guide contributors in i3 improving rural achievement community, by grantee project—continued

Grantee & Contributors	i3 Project	Project Purpose
Virginia Advanced Study Strategies, Inc. <i>Hobart Harmon</i> <i>Jennifer Stevens</i> <i>Sandy Wilborn</i> <i>Sue Adams</i> <i>Veronica Tate</i>	Rural Math Excel Partnership	To develop and implement a model of shared responsibility among families, teachers, and communities in rural areas to prepare students to be successful in advanced high school and postsecondary STEM studies.
	Rural Math Innovation Network	To develop a process using a networked improvement community (NIC) of pre-Algebra and Algebra I teachers in high-need rural school environments to incorporate non-cognitive, SEL factors of academic self-efficacy and growth mindset into lesson plans for teaching math competencies used by technicians in STEM-H occupations.
Waterford Institute <i>Claudia Miner</i> <i>Rich Stombres</i>	Working with Utah’s Rural School Districts to Expand and Enhance UPSTART	The project is designed to improve school readiness preparation and reading development using UPSTART, a home-based technology-delivered pre-K program.

APPENDIX B: METHODS

At the annual i3 conference in July 2016, members of the i3 Rural Community workgroup proposed developing a summary for the field that catalogued lessons learned throughout their grant lifecycles. Data collection occurred in four ways: (1) conversations during regularly scheduled i3 rural community webinars, (2) an informal poll posted on the rural community webpage, (3) personal emails to community members, and (4) an in-person meeting in spring 2017. A subcommittee worked together to create and revise drafts, and gathered input for key sections from community participants.