State Policy Responses to Ensuring Excellent Educators in Rural Schools

Douglas J. Gagnon
Marybeth J. Mattingly
The Carsey School of Public Policy
University of New Hampshire

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The Excellent Educators for All initiative is the most recent federal policy effort to address unequal access to teacher quality in the United States. States were required to submit equity plans to the U.S. Department of Education that detailed how to ensure that poor and minority children do not receive instruction from less qualified teachers. States could extend their plans to include rural students, although this was not a statutory requirement. Past federal reform efforts around raising teacher quality have been widely criticized as being overly prescriptive, and ultimately failing to account for the unique contexts of rural schools. We examine the extent to which rural needs are addressed in all available state equity plans. We find that roughly half of U.S. states examine equity gaps along the urban-rural continuum, and roughly half propose rural-specific policy solutions to improve rural school staffing, although less than a third do both. States across the country employ a range of strategies in roughly equal measure, including grow your own programs, financial incentives, communities of practice, and capacity building. In addition to detailing findings and providing nuanced examples, this article also discusses implications for students and state policy.

U.S. Secretary of Education Arne Duncan announced in July 2014 that each state educational agency (SEA) must submit a plan describing the steps it will take to ensure that "poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers," as required by section 1111(b)(8)(C) of the Elementary and Secondary Education Act of 1965 (U.S. Department of Education, 2014). These plans require SEAs to identify equity gaps in access to excellent educators, and to describe the steps that will be taken to eliminate the identified equity gaps. In this study we examine how states have responded to this current federal call to action, specifically regarding the extent to which the interests of rural schools are represented in each SEA's equity plan. We use the parsimonious term "equity gap" to refer to any disparity in average teacher quality (as defined by states) across students and schools. Since there is strong evidence to suggest that teacher quality is the most important school factor in raising student achievement (Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005), this initiative could certainly have strong implications for students in U.S. public schools.

Many have criticized previous federal efforts to improve teacher quality—and federal policy more generally—as failing to fully consider the unique needs of rural schools (Eppley, 2009; Johnson & Howley, 2015; Johnson, LiBetti Mitchel, & Rotherham, 2014). We argue that federal education policy efforts have focused on a common set of priorities, and that examining critiques of relevant policy reveals that these priority areas do not sufficiently account for rural contexts. We now review germane aspects of two major federal policy moments in education: the 2001 No Child Left Behind Act (NCLB), and the 2009 American Recovery and Reinvestment Act (ARRA). Both of these packages of federal policy reform have left a considerable imprint on how the education community views teacher quality, and knowledge of this matter is crucial before reviewing the federal call for state teacher equity plans.

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All correspondence should be directed to Douglas Gagnon, The Carsey School of Public Policy, University of New Hampshire, 73 Huddleston Hall, Durham, NH 03824 (Douglas.Gagnon@unh.edu).

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Ushering the accountability era, the NCLB provision for highly qualified (HQ) teachers was initially most burdensome to smaller rural schools, where teachers are more likely to teach more than one subject and therefore need to have multiple certifications to be considered highly qualified in all classes. Flexibility provisions were added in 2004 which allowed teachers in eligible rural districts who were HQ in at least one subject area to take up to three years to become HQ in the additional subject areas that they teach. However, roughly three-quarters of rural and small town schools were ineligible for this flexibility provision, including many high-need rural schools (Rural School and Community Trust, 2004). Even if this form of flexibility were extended to all schools, one could argue that in rural schools—where community context is paramount, and teachers must often fill numerous roles for their students—more issues result from an external, homogenous determination of teacher quality (Eppley, 2009).

More recently, Race to the Top (RTTT), a $4.4 billion competitive grant program instituted as part of ARRA, was roundly criticized for having an urban/East Coast bias. States with larger rural populations were less inclined to pursue the favored reforms items in RTTT, as federal priorities such as charter schools and systems of teacher evaluation were deemed incongruent due in part to the lack of capacity and scale for such initiatives in rural communities. The Rural School and Community Trust found that roughly two-thirds of funds in the first and second rounds of RTTT were awarded to states in the lower half of the Rural Importance Gauge, an index variable based on a number of factors including the number and proportion of rural students (RSCT, 2010). In response to such criticisms, the federal government included a preference for rural status in applications for the Race to the Top District program (RTTT-D). Although this modification was an attempt to reconcile these concerns, Johnson and Howley (2015) point out that it still left many smaller rural districts behind, as it required districts either to have 2,000 students or to apply as part of a consortium.

School Improvement Grants (SIG), also part of the 2009 ARRA, channel funds into persistently low achieving schools through one of four highly prescriptive school interventions: turnaround, transformation, closure, and restart. The SIG program represents another important federal policy lever, and it too has been criticized as failing to meet rural needs for two main reasons. First, many needy schools in rural areas simply did not receive SIG funds; urban schools were four times more likely to receive SIG funds than were rural schools. Second, the effectiveness of SIG models relies on the assumption that the school receiving the grant is located in an area of high human capital (Johnson & Howley, 2015); hiring new staff, creating a new charter school, or closing an existing school represent options that are highly untenable for many small and remote rural communities. The Rural Education Achievement Program (REAP) was created to help rural districts that may lack the personnel and resources to compete for federal competitive grants or are too small to implement the intended programs effectively, and it is clearly an important effort to ameliorate some of the aforementioned concerns. However, the eligibility requirements under the two main REAP initiatives may leave many needy rural schools without adequate federal funding (Johnson, & Howley, 2015; Johnson et al., 2014).

The federal request for comprehensive educator equity plans from all SEAs represents the most recent federal reform effort in the area of teacher quality accountability. Notably, this initiative is less prescriptive than other reforms, as it is framed more as a call to action—with the U.S. Department of Education (USDOE) providing some guidelines, technical assistance, and a network of support systems—and the onus was placed on states to ensure that poor and minority students have equal access to excellent teaching. The term "excellent teaching" appears to be purposefully vague in USDOE's request, as states are very much left to define it on their own; in this article we use the term in a similar fashion. Viewed through a rural lens, one might be critical that while addressing equity gaps along lines of poverty and race are statutory requirements for this initiative, no special attention is drawn to the importance that place plays in determining opportunity gaps. After all, research has shown that students in rural schools are more likely to have novice teachers and teachers without a master's degree (Gagnon & Mattingly, 2014; Provasnik et al., 2007). However, the support systems put in place by the USDOE include the Rural Access Issues & Support Community of Practice, which aims to help states as they consider issues of access that are unique to a rural context. Overall, it is unclear whether states did, in fact, take rural circumstances into account when drafting equity plans. For this reason we ask: To what extent are rural-specific equity gaps identified and addressed in state equity plans?

Defining Rural

Rural communities are extremely diverse. A number of factors vary considerably across rurality, including proximity to urban areas, level of amenities that are attractive to outsiders (tourism), industrial composition, and in-migration of foreign-born Hispanics (Lichter & Graefe, 2011). Regional differences abound as well. Rural areas within the South and Southwest have the largest concentrations of minorities, though across rural America, the minority population is growing (Johnson, 2012). Rural population loss is most dramatic in the Central United States; conversely, rural communities in the recreational areas of the mountain West, scenic portions of New England, and the upper Great Lakes have experienced growth (Johnson,

2012). Rural school districts also differ in predictable ways, driven in part by whether district consolidation has occurred. Many small rural school districts remain in the Northeast, which contrasts with a number of Southern states, where county-wide district consolidation is the norm.

Although rural communities are extremely diverse across the country, it is still worthwhile to understand the ways in which they are similar. For instance, rural areas are more likely than metropolitan places to experience higher rates of poverty, concentrated poverty, and poverty that spans generations (Mattingly, Johnson, & Schaefer, 2011). Such poverty is caused in part by economic restructuring, which has led to the disappearance of agricultural and mining professions in many rural areas (Litchter & Graefe, 2011; Sherman, 2009). The difficult economic circumstances found in many rural areas may lead to a "brain drain," where those that have the ability to leave often do, which further handicaps the ability of rural areas to adapt to changing times (Carr & Kefalas, 2009). Overall, the dearth of good jobs and out-migration of educated rural individuals make it difficult for many rural communities to attract the new businesses necessary to improve their economic outlook (Litchter & Graefe, 2011).

Monk (2007) makes a distinction between attributes that are strongly associated with rural communities and inherent characteristics of rural communities. Small populations and low population density, geographic isolation, and limited choices are, to some extent, attributes that nearly all rural areas share, and thus can be considered inherent characteristics of all rural areas. The National Center for Education Statistics (NCES) uses U.S. Census definitions to classify the urbanicity of school districts, and thus relies largely on population density to differentiate between urban and rural schools. Specifically, all individuals living outside of urban clusters (2,500-50,000 people) and urbanized areas (50,000 or more people) are considered to be in a rural area. We find that SEAs use a similar conception of rural when considering the importance of place.

Staffing Rural Schools

The difficulty finding and retaining high-quality teachers in rural schools is well documented and discussed (Beesley, Atwill, Blair, & Barley, 2010; McClure & Reeves, 2005; Monk, 2007). A significant challenge is that rural areas produce proportionally fewer teachers than do urban areas: A smaller percentage of rural students attend college (Provasnik et al., 2007), and far fewer colleges with teacher training programs are found in rural areas. Since teachers express a preference for working in the area where they grew up (Boyd, Lankford, Loeb, & Wyckoff, 2005), one can expect lower levels of teacher supply in rural areas due to the smaller pool of potential teachers. Given these trends, it is unsurprising that research shows that rural teachers are less likely to possess numerous indicators of quality. Rural school teachers are, on average, less likely to hold a master's degree (Provasnik et al., 2007) or to have attended a selective college (Gibbs, 2000), and they are more likely to teach out-of-field (Lazarus, 2003) and to be a novice teacher (Gagnon & Mattingly, 2014). We believe that such indicators are important, if incomplete, proxies for excellent teaching, while also acknowledging that there are other important domains of teaching that might not be well captured by such indicators.

Rural schools, on average, do not exhibit higher rates of teacher turnover than other schools (Provasnik et al., 2007). However, as Monk (2007) argues, the challenge of rural school staffing should be reframed to consider hard-to-staff rural schools in particular. As is found across the urbanicity spectrum, the greatest retention issues are typically faced by schools that serve the most disadvantaged populations, and such populations are disproportionately concentrated in rural places (Mattingly, Johnson & Schaefer, 2011). Additionally, remote rural schools are further challenged by their distance from areas of high human capital. The smaller size of many rural schools means that the qualitative effect of losing a teacher may be greater than it is in larger schools. For example, the departure of a school's only science teacher leaves that school with a hard-to-staff position while also having no remaining educator in that content area to help nurture and develop a novice science teacher. Of course there are also strengths of rural areas which might better serve teachers, such as a tighter, more transparent connection between community and schools (Hill, 2014). The more important takeaway from this review is not whether rural schools are more or less disadvantaged, but rather that the unique context of rural schools requires tailored policy solutions.

Although there has been little empirical work conducted around the effectiveness of various staffing initiatives (Beesley et al., 2010), the literature is replete with suggestions of best practices around teacher staffing in rural schools. Issues with attracting, developing, and retaining quality teachers are present in many places, and many approaches to these problems could prove effective in nearly any school. However, the underlying differences found in many rural schools discussed above—primarily size, isolation, and distance from human capital—create a unique context for rural schools that necessitates tailored solutions. The favored policy responses for rural school staffing, specifically, can be categorized along four domains: "grow your own," financial incentives, communities of practice, and capacity building.

Grow your own approaches to rural school staffing, which generally enjoy widespread support, encompass a diverse set of strategies that aim to develop the existing

talent pool in rural areas (Barley & Brigham, 2008; Beesley et al., 2010; Hammer, Hughes, McClure, Reeves, & Salgado, 2005; Lowe, 2006; Monk, 2007). An underlying assumption in these cases is that individuals who grow up and have positive experiences in a rural community are more likely to stay to teach in a rural school, and there is some empirical support for the effectiveness of grow your own strategies in rural areas (Sutton, Bausmith, O'Connor, Pae, & Payne, 2014). For the purposes of this research, we consider grow your own approaches to be limited to pre-service strategies, including: creating programs to introduce education careers to promising rural high school students; partnering with universities to establish rural-specific coursework, multiple-subject certification programs, and rural student-teaching placements; and the retraining of service-oriented professionals (e.g. ex-military) and current school paraprofessionals to become classroom teachers.

The second category of strategies includes policies aimed at increasing the supply of teachers to rural areas through financial incentives. The issue of low pay for rural teachers has been documented for over a century (Houston, 1914), and currently rural teachers make nearly $10,000 less per year than their urban and suburban counterparts, once experience and degree level are accounted for (Player, 2015). Evidence suggests that there is a net migration of teachers from rural to suburban districts (Miller, 2012) and from higher poverty schools to lower poverty ones (Delaware Department of Education, 2015; Hanushek & Rivkin, 2007). Teacher pay certainly seems to be a factor in teacher employment decisions (Hanushek & Rivkin, 2007; Podgursky, Monroe, & Watson, 2004), although it seems likely, given the complexities of motivation and job satisfaction, that a strong salary is not a sufficient reason for teachers to remain in their school. Increasing the base pay of rural teachers is only one way of increasing the supply of teachers to rural schools, and in fact it is probably less common than some others due to the difficulties in changing pay structures en masse. A number of other, often more politically feasible, financial incentives have been employed to help attract and retain new teachers in rural areas, including loan forgiveness, housing stipends, and signing bonuses (particularly in high-need subject areas).

Creating rural communities of practice includes a family of approaches that help develop and retain in-service teachers. These strategies include mentoring and induction programs that might be common in many types of schools, although, again, such programs would be most effective in rural areas if they were to account for rural-specific needs. Hammer et al. (2005), in a review of rural staffing initiatives, report that in addition to being strategic, specific, and sustained, successful recruitment and retention practices are rooted in the community. A study by Adams and Woods (2015) suggest that a community-level intervention—where new teachers are developed professionally but are also encouraged to become active in the communities in which they serve—may help retain rural teachers and improve their sense of self-efficacy. To combat the problems associated with remoteness in developing teachers, school improvement networks can use technology to provide training and supports to teachers in remote areas who may not have the ability to complete more traditional forms of professional development (Hargreaves, Parsley, & Cox, 2015), and rural school partnerships can be formed (Lowe, 2006). Distance learning may also be used to expand course offerings, allowing rural schools to share teacher expertise.

Rural capacity building is a broad category that includes any initiative aimed at providing supports, resources, technical expertise, or other services to rural schools that otherwise would be too small or remote to effectively pursue a given strategy. This category encompasses any strategy deemed rural-specific that does not fall neatly into the previous three categories, and therefore defies simple generalization. Often, however, capacity building includes supports to human resource efforts in small and understaffed rural districts, which lack the time, resources, and analytic capacity to adopt more sophisticated practices of teacher recruitment and hiring.

It may be worth noting, of course, that there is no single "best practice" for all rural schools, again due to the fact that rural schools are a heterogeneous group. Miller (2012) uses the cases of New York State and Nebraska to underscore how rural school staffing issues may differ, in part as a result of how remote the rural area is. In New York State, which has 12 metropolitan statistical areas but also boasts the eighth-largest population of rural students in the nation, roughly half of rural schools are less than five miles from an urbanized area. This situation contrasts with a state such as Nebraska, where nearly three-fifths of rural schools are more than 25 miles from an urbanized area (Provasnik et al., 2007). Thus, in states such as New York, teachers have more opportunities to switch from an urban or suburban school to a rural one, without relocating, than do or teachers in states such as Nebraska. Ultimately, there is probably a greater supply of teachers in less-remote rural schools due to the accessibility of urban amenities in these locales. This arrangement likely creates greater elasticity in rural teacher markets for less remotely rural states such as New York, with teacher employment decisions being more responsive to relative changes in salary and working conditions. District size also has implications for staffing concerns, as larger districts will benefit from economies of scale while perhaps at the same time being less nimble in recruiting teachers.

Research Methods

There is a need to document the extent to which rural contexts are accounted for in state equity plans under the Excellent Educators for All initiative. In this study we determine which states examine rural equity gaps, and what strategies are proposed to address rural staffing concerns. These two elements are scrutinized because gap examination and strategy proposal represent the bulk of most state equity plans, and these elements are where meaningful variability exists across states. In addition, we also analyze how state rurality is related to these trends. We employ document analysis, uniformly applying a series of questions to all available state equity plans.[1] The states of California, Hawaii, and South Dakota did not submit equity plans, and therefore could not be included in this study. Washington, DC, was excluded from this analysis, as this SEA lacks any rural areas and therefore is not applicable. Ultimately, the following questions were applied to the 47 available state equity plans.

1. Does the plan examine equity gaps across urbanicity, or only those that are statutorily required (i.e., poverty and minority)?

2. Does the plan articulate rural-specific policy solutions intended to increase access to excellent teachers in rural schools? If so, into which of the four broad categories outlined in this study—grow your own, financial incentives, communities of practice, and capacity building—does the strategy fall?

3. If the plan does provide a rural-specific policy solution, might it serve as an exemplar to other states that wish to take a similar policy approach?

The most straightforward way for a state to analyze urbanicity gaps is to use the National Center for Education Statistics (NCES) classification system to present trends separately for city, suburb, town, and rural schools.[2] Alternatively, states may operationalize rural in other ways, such as compressing town and rural categories into one, or by examining only remote rural schools. There are two ways in which states were considered to have reported on urbanicity gaps without explicitly presenting differences between rural and non-rural schools. First, we assumed that a state is implicitly measuring rural gaps if the report documents that school rurality is correlated to the statutory requirements (poor and minority students). Second, some states (e.g., New Mexico, West Virginia) framed rural issues in isolated and/or geographical terms, which we consider to be akin to examining rural trends. However, if only anecdotal evidence was offered (e.g., claims made in stakeholder meetings that rural schools have fewer HQ teachers), states were deemed to have not analyzed equity gaps across urbanicity.

In order for a solution to be considered "articulated rural-specific," a state must present an intended course of action which has a stated or directly inferred purpose of addressing an issue faced by rural schools. Such solutions may not necessarily be presented as rural-specific, as long as the equity plan makes clear that a specific rural need exists, and a policy solution is put forth which explicitly addresses this need. For instance, if an equity plan documents that rural schools face an acute teacher shortage in particular content areas, and also proposes a strategy to produce more shortage-area teachers—even though the solution is not presented as rural-specific, per se—then this was considered to be a rural-specific policy solution. However, if an equity plan only details intentions to review and evaluate staffing policy in the future—even if it is suggested that policy solutions may differ for rural schools—we did not consider this to be an "articulated rural-specific" policy. Ultimately, we only examine current commitment as detailed in state equity plans.

Once a strategy was determined to be rural-specific, it was then categorized into at least one of the four areas described in this study: grow your own, financial incentives, rural communities of practice, and capacity building. Some strategies encompassed multiple categories, and as such were dually coded. For instance, a grow your own policy might also call for the establishment of a rural mentoring community for educators once they reach the classroom, and therefore would be considered both a grow your own and rural community of practice approach. One exception to this decision rule arose in the categorization of capacity building. Since other categories used here are, to some degree, capacity building strategies as well, only rural-specific strategies that failed to fall into one of the first three categories were deemed capacity building endeavors. Overall, we believe this to be a conservative approach to this study while still providing accurate and actionable data.

It is important to emphasize that a strategy must first be deemed "rural-specific" before it can be categorized. There are many instances where strategies are employed widely, but for which rural-specific elements are neither explicitly stated nor could be inferred from the equity plan, and therefore are not examined here. We now offer two concrete examples to illuminate this aspect of the document analysis procedure. The State of Maine proposes a number of clear rural-specific policy solutions, including certification fee

[1]SEA equity plans can be found on the USED website: http://www2.ed.gov/programs/titleiparta/resources.html

[2]Complete definitions may be found on the NCES website https://nces.ed.gov/ccd/rural_locales.asp

waivers and longevity bonuses for teachers in "isolated-small" schools (Maine Department of Education, 2015). These strategies are examples of rural-specific financial incentives, as they monetarily reward teachers in rural schools, specifically. Furthermore, these strategies were born out of prior assertions in the report that Maine's isolated-small rural schools face particular challenges related to high turnover and small applicant pools. The State of Delaware also proposes financial incentives as a strategy to increase teacher equity, namely in the form of a generous retention bonus paid out to highly effective teachers in high-need schools (Delaware Department of Education, 2015). However, although there are a number of more rural schools in Delaware that may meet eligibility requirements and ultimately rural schools may benefit from the program, rural schools are clearly not the primary benefactors of such a strategy. In addition, the theory of action behind Delaware's retention bonus strategy makes no mention of rural context. Thus, we categorize Maine as having a rural-specific financial incentive strategy, but we do not do so for Delaware.

One might expect the presence of rural-specific data and policy strategies in an equity report to be related to the rurality of the state, and we test this assumption here. We use a rural index called the Rural Importance Gauge, which was developed in an RSCT report (Johnson, Showalter, Klein, & Lester, 2014). This index variable ranks U.S. states according to five relevant factors: percent rural schools, percent small rural school districts, percent rural students, number of rural students, and percent of state education funds to rural districts. For ease of comparison, we divide the 47 states in this study into categories of high, moderate, and low rural importance based on this index.

In choosing states for exemplars, we used a number of criteria. First, we sought out clearly articulated strategies, with sufficient levels of detail, in which the rural-specific rationale of the policy was made quite explicit. That is to say, the exemplars presented here generally devoted considerably text to describing both the policy itself and the reasons why it was well-suited to rural schools. Next, selecting a variety of solutions was valued in an effort to represent the range of best practices identified through the literature review. Finally, we wanted to choose states that represent different regions and types of rurality, often where solutions were tailored to state contexts, to provide cases that could serve as useful exemplars to the greatest number of states. Admittedly, the process of choosing exemplars is inherently a more subjective exercise than other aspects of the document analysis. However, we make no claims on the effectiveness of the strategies we outline in this study. Rather, we use our exhaustive document analysis to elevate a number of strategies that are of likely interest to researchers and policymakers.

Findings

We find that roughly half of states (53%) examined teacher equity gaps by urbanicity, while a nearly identical

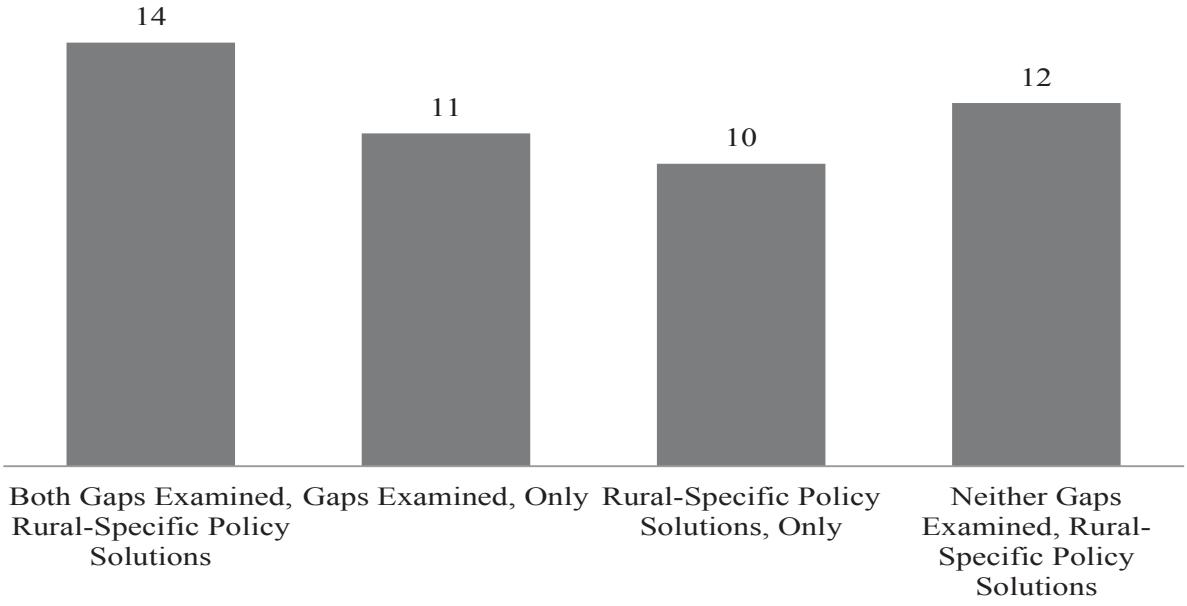
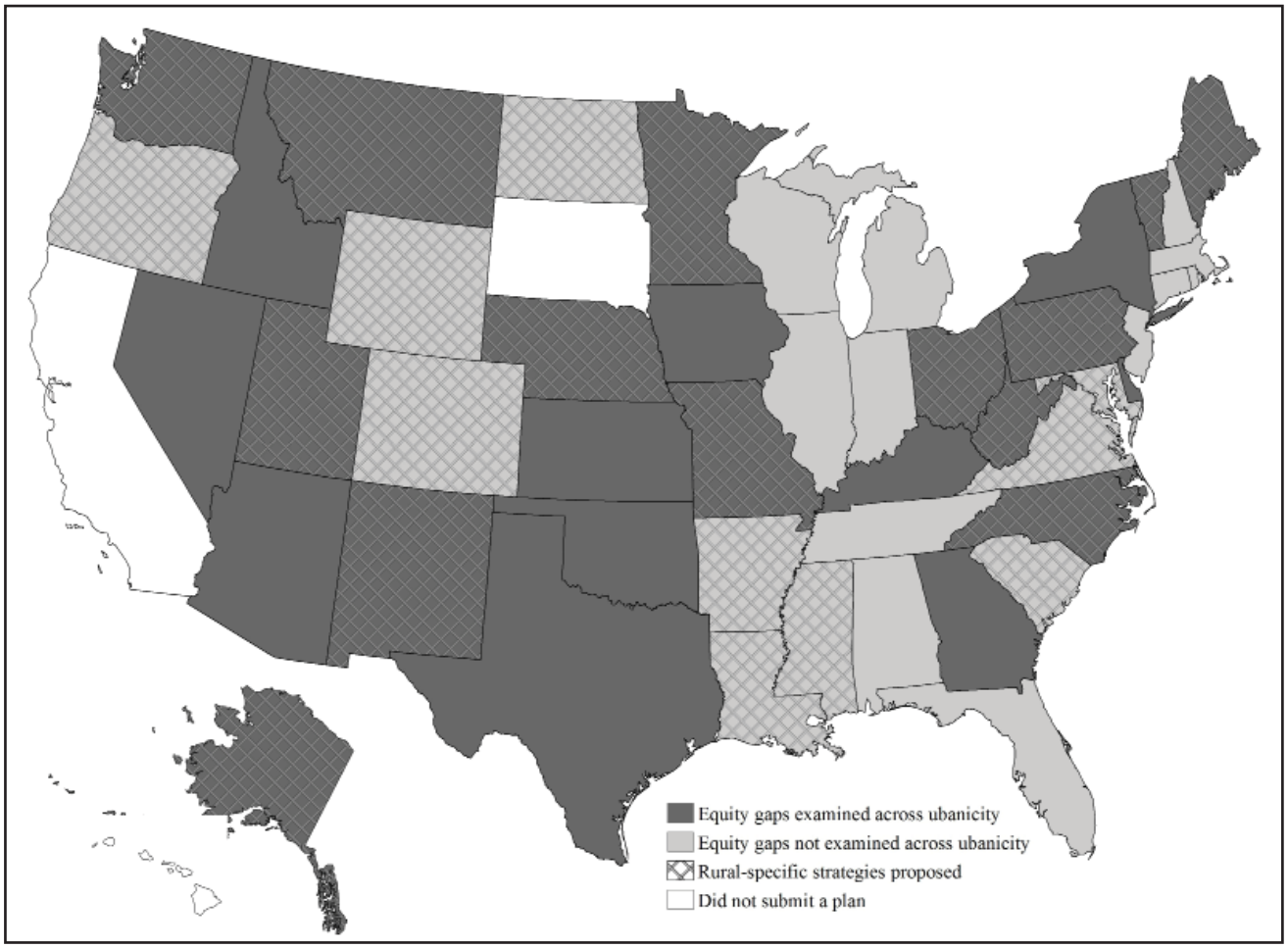


Figure 1. Number of states examining rural equity gaps and proposing rural-specific solutions in state equity plans.



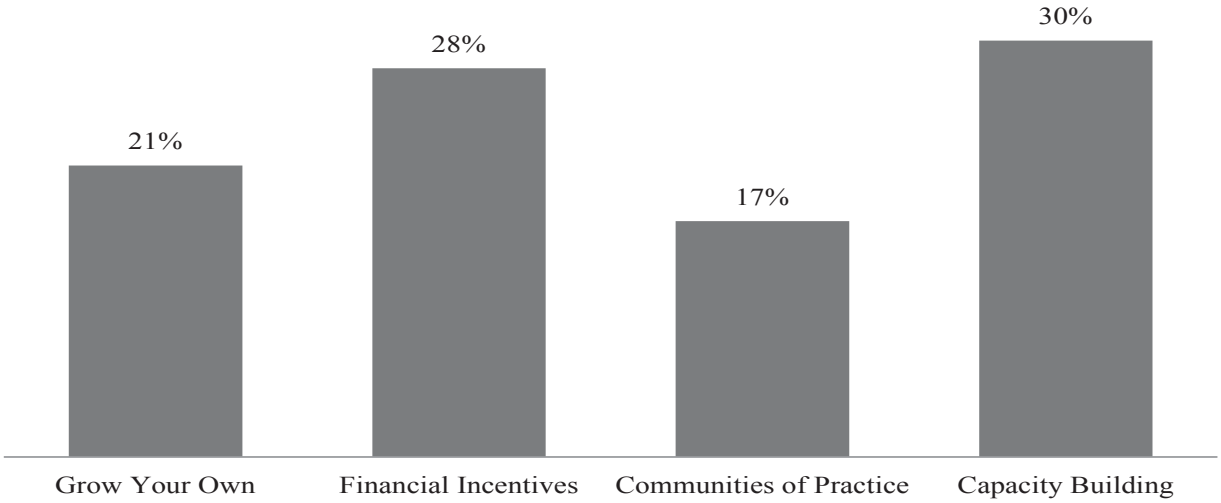


Figure 3. Percentage of states proposing grow your own, financial incentives, communities of practice, and capacity building.

Table 1

Rural Gap Examination and Policy Solutions in Teacher Equity Plans Across States of High, Moderate, and Low Rural Importance

Rural Importance	Proportion that Analyze Rural Equity Gaps	Proportion that Propose Rural-Specific Solutions
High	56%	63%
Moderate	63%	50%
Low	40%	40%
Totals	**53%**	**51%**

proportion (51%) proposed rural-specific solutions to staffing concerns. However, there is little correlation (ρ=0.11) between examining rural gaps and offering rural-specific solutions across states. Figure 1 shows that there are nearly equal numbers of states that fall into four mutually exclusive categories: examine rural equity gaps and propose rural-specific solutions, examine rural gaps only, propose rural-specific solutions only, and neither examine rural gaps nor propose rural-specific solutions. This finding is further illustrated in Figure 2, which is a map of the United States. Regional trends are present, but not stark. For instance, all 12 plan-submitting states that neither analyzed gaps nor presented solutions (light grey) may be found east of the Mississippi River, as all plan-submitting states west of the Mississippi either analyzed gaps or proposed rural solutions, or did both. However, states that both examined gaps and proposed solutions (hatched dark grey) are represented in the Northeast, Midwest, South, and West regions of the United States.

In exploring the types of rural-specific strategies employed, we find that each of the four categories outlined in this study enjoys a fair amount of support across states. Figure 3 shows that financial incentives (28%) and capacity building (30%) were proposed by nearly a third of states, while grow your own (21%) and communities of practice (17%) strategies were somewhat less common. Of the 24 states that offered rural-specific policy solutions, 17 states (71%) proposed strategies that fall into two or more categories. See the Appendix A for complete state-by-state comparisons.

Next we examined how a state's likelihood of identifying and of addressing rural gaps is related to the rural importance of that state. Table 1 shows these results across states of high, moderate, and low rural importance, illustrating two somewhat different trends. First, we see that the likelihood of a state's examining rural equity gaps bears little relationship to its rural importance. In fact, states of moderate importance are actually the most likely to analyze gaps. We do find, however, that states with very small rural populations tend to not analyze urbanicity gaps.[3] Second, table 1 shows that states of greater rural importance are more likely to propose rural-specific solutions in their state equity plan, and states of high rural importance are considerably more likely to do so as are states of low rural importance.

A number of states offered well-articulated grow your own, financial incentives, rural communities of practice, and capacity building strategies in their teacher equity plans. Here we present a sample of state approaches that meet the criteria established in the methods section. Again, we reiterate that the strategies described here are not meant to be exhaustive, neither in terms of the policy agenda for the states selected, nor of rural-specific polices throughout the country as a whole. However, we believe that eight exemplars represent a robust sample of strategies that generally align with the best practices identified in the literature: Alaska and Washington State offer grow your own strategies; Minnesota and Montana propose financial incentives; Maine and Nebraska present different initiatives aimed at improving rural communities of practice; and Colorado and Missouri offer different examples of how states are attempting to increase the capacity of rural school districts.

Grow Your Own

Alaska. Multiple grow your own initiatives are being pursued in Alaska to address the lack of teachers in more remote regions of the state. Alaska's equity plan calls for expanding Future Educators of Alaska, a statewide collaborative aimed at inspiring Native Alaskans to

[3]For instance, 5 of the 6 states with the highest proportion of urban students—New Jersey, Rhode Island, Massachusetts, Connecticut, and Florida—did not report teacher equity gaps along lines of urbanicity.

become educators, into every rural middle and high school in the state. The state also plans on partnering with three institutions of higher education to develop five rural clinical educators, placed at rural campuses or Regional Training Centers, who will seek to develop more teachers in these locations. Alaska also proposed a training program whereby paraprofessionals, who number about 1,800 in the state, may become fully-licensed teachers.

Washington. The State of Washington is also proposing to train paraprofessionals to become teachers through the Paraprofessional Pipeline program, which uses an alternative route (to certification) conditional scholarship. As part of this strategy, the state plans to establish minimum employment standards, a more formal career ladder system, targeted professional development, and an articulated pathway to teacher preparation for its paraprofessionals.

Financial Incentives

Minnesota. Minnesota has for a number of years tried to address funding disparities between high-revenue districts and low-revenue districts. The state argues that small rural school districts, which are disproportionately low-revenue districts, greatly benefitted from funding increases and policy changes passed during the 2013 legislative session. Minnesota will continue to make investments and work with stakeholders to address this issue, which will likely lead to decreased pay disparities between rural and non-rural teachers.

Montana. The equity plan submitted by Montana included multiple strategies specifically aimed at improving teacher quality in remote schools, some of which include financial incentives. For instance, the state intends to expand eligibility for the student loan forgiveness program to include elementary teachers in rural and high-poverty areas. The index for determining eligibility for this program is based on both school poverty as well as isolation. In addition, Montana will continue to use SIG funds to place additional educators in the state's Schools of Promise, all of which are persistently low achieving and found in remote areas on American Indian reservations.

Communities of Practice

Maine. Maine is working to support a system of online communities of practice for teachers in high-poverty, isolated-small, and high-risk schools and districts. Mentors will be selected from the Maine's Teachers of the Year program, National Board Certified Teachers, Presidential Awardees for Excellence in Science and Mathematics, and those identified by the state system of evaluation. The state will also work with institutions of higher education to target continuing educational opportunities and professional development for teachers in rural areas, especially in the area of special education training.

Nebraska. The BlendEd Initiative in Nebraska uses an online platform to offer instructional support and professional learning for educators, aiming to provide systematic professional development to all educators statewide—including rural teachers who may lack brick-and-mortar, subject-matter peers. BlendEd also expands the number and variety of learning opportunities available for rural students without the cost of additional staff. Nebraska's equity plan calls for an increase the number of "synchronous" classes—where teachers and students engage in real time and thus interact in a more authentic fashion than asynchronous distance learning provides—that are staffed with appropriately endorsed teachers.

Capacity Building

Colorado. The Self-Assessment for Healthy Human Capital Systems tool was created by Colorado to help district administrators think about strategic staffing decisions. The state has acknowledged that rural districts in particular lack the capacity to implement this tool effectively, and that therefore additional resources are necessary. Colorado plans to create a toolbox to support the successful implementation of human capital systems in its school districts, with examples and tools related to all practices that are identified in the self-assessment.

Missouri. To predict educator shortages and surpluses by region and certification, Missouri partnered with a number of research organizations to create a Shortage Predictor Model (SPM). Estimates from the SPM are based on historical shortage/surplus data, enrollments per teacher, and supply of new teachers from professional education programs. The use of a SPM provides more information than historical data alone, which could aid human resource efforts in school districts. However, SPM estimates may prove even more useful in testing the effects of other human capital strategies, and ultimately to help states and districts chart a path forward.

Discussion

The challenge of staffing poor and remote rural schools with excellent teachers is well-documented. Just as the average student of color or student living in poverty is more likely to have a less excellent teacher—as measured by a great number of proxies—so too are rural students disadvantaged. Numerous strategies seek to address the challenges that isolation and poverty may bring, either through attempting to increase teacher supply, developing the existing rural workforce, stemming the rate of attrition, or some combination of these approaches. Too often, the

neediest rural districts lack the resources and capacity to improve their standing; for this reason federal and state support may prove critical. The Excellent Educators for All initiative deviates, to some degree, from recent federal attempts to improve the equitable access to good teaching in that it leaves much of the policymaking details up to states. This current initiative is considerably less prescriptive than the NCLB- or ARRA-era efforts to improve teacher quality. And, although states were not required to examine and address gaps along urbanicity, such analyses were welcomed and supports for rural solutions were put in place. Overall, the criticisms usually leveled at federal policy in defense of rural schools are somewhat less applicable in this case, as it entails considerably more flexibility.

We find tremendous variation in state equity plans along the dimensions examined. Roughly half of states examine gaps in teacher qualifications or effectiveness across urbanicity. We also find that reporting and non-reporting states alike are found across the rural importance spectrum—and across the country. It may be the case that some states accurately presume the presence of, or lack of, an access gap across urbanicity. However, we argue that simply measuring gaps may produce actionable data, and that any state with a meaningful rural population should examine proxies for teacher excellence across urbanicity. States should not have to rely on anecdotal evidence to support a policy agenda. Quantifying equity gaps can help states understand where priority areas lie, as the solutions will differ depending on the paramount challenges faced by schools. For example, a state may find that rural schools face a shortage of qualified teachers in certain subject areas, but do not exhibit a retention issue; such data clearly impact the course of policy action. We find that only 14 states both measure rural equity gaps and provide rural-specific strategies, suggesting that the practice of using data to drive rural school staffing policies among state departments of education is still in its nascency. A baseline of teacher supply and qualifications data could prove invaluable in this regard.

We find that approximately half of states present rural-specific strategies in their equity plan, with a fair range of the types of strategies being proposed. It should be noted that the lack of clearly articulated rural-specific policies in equity plans does not mean that such states are not pursuing solutions which may improve teacher quality in rural schools. Nor does it mean that such states will fail to enact policies that are tailored toward rural schools in the near future; many reports highlighted how this initiative represents an ongoing, iterative process, and therefore continued policy action might be expected. However, advocates of at-risk rural students would probably argue that the Excellent Educators for All initiative represents an ideal opportunity for states to lay out such policy, in part due to the political cover that federal action gives states. Also, not all states that propose rural-specific policies do so in a completely convincing fashion. The lack of fully-articulated rural solutions found in many state equity plans—especially in states with significant rural populations—likely signals that some states are just beginning to explore policies intended to specifically address rural staffing concerns. Given the well-documented educational disparities for rural students and the unique context of rural schools, the lack of attention paid to the plight of rural students does not auger well for the equality of opportunity across place.

We are unable to capture the degree to which a state is committed to pursuing rural staffing policies as described in equity plans, nor can we assume that policy implementation will be conducted effectively, and these inabilities serve as limitations to this study. Even a well-articulated plan that offers great promise might fall short of achieving its intended goals. Alternatively, there may be some states without articulated solutions in their current equity plans that develop effective rural-specific staffing policies in the near future. Furthermore, states differ considerably in the level of flexibility in their approaches. Some states present prescriptive solutions, while others leave more discretion to districts to tailor their own policies. Researchers and policymakers should carefully observe the efforts of states in this realm. We highlight eight states that present a range of rural staffing polices that are generally aligned with best practices as described in related literature, which could serve as useful case studies. Those states with innovative policies and sufficient data systems should be studied closely in the coming years, and researchers should endeavor to evaluate the effectiveness of these strategies.

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Appendix A: Teacher Equity Reports, Rural Gap Examination and Rural-Specific Policy Solutions, U.S. States

State	Rural Rank	Were Teacher Equity Gaps Examined Across Urbanicity?	Were Rural-Specific Policy Strategies Proposed?			
			Grow Your Own	Financial Incentives	Communities of Practice	Capacity Building
ME	1	Yes	No	Yes	Yes	No
VT	2	Yes	No	No	Yes	Yes
SD	3	Did Not Submit a Plan				
OK	4	Yes	No	No	No	No
NC	5	Yes	Yes	No	No	No
MS	6	No	Yes	Yes	No	No
MT	7	Yes	No	Yes	No	Yes
ND	8	No	Yes	Yes	No	No
KY	9	Yes	No	No	No	No
TN	10	No	No	No	No	No
AL	11	No	No	No	No	No
AR	12	No	Yes	No	Yes	Yes
IA	13	Yes	No	No	No	No
SC	14	No	No	Yes	Yes	No
NH	15	No	No	No	No	No
MO	16	Yes	No	Yes	No	Yes
AK	17	Yes	Yes	No	Yes	No
GA	18	Yes	No	No	No	No
KS	19	Yes	No	No	No	No
NE	20	Yes	No	Yes	No	Yes
WV	21	Yes	No	No	No	Yes
ID	22	Yes	No	No	No	No
VA	23	No	Yes	No	Yes	Yes
OH	24	Yes	No	No	No	Yes
TX	25	Yes	No	No	No	No
MN	26	Yes	Yes	Yes	No	Yes
WY	27	No	No	No	No	Yes
IN	28	No	No	No	No	No
WI	29	No	No	No	No	No
NM	30	Yes	Yes	Yes	No	No
AZ	31	Yes	No	No	No	No
CO	32	No	No	No	No	Yes
MI	33	No	No	No	No	No
PA	34	Yes	No	Yes	Yes	No
IL	35	No	No	No	No	No
NY	36	Yes	No	No	No	No
CA	37	Did Not Submit a Plan				
LA	38	No	Yes	No	No	Yes
OR	39	No	No	Yes	No	No
WA	40	Yes	Yes	Yes	Yes	No
DE	41	Yes	No	No	No	No

Appendix A: Teacher Equity Reports, Rural Gap Examination and Rural-Specific Policy Solutions, U.S. States (continued)

State	Rural Rank	Were Teacher Equity Gaps Examined Across Urbanicity?	Were Rural-Specific Policy Strategies Proposed?			
			Grow Your Own	Financial Incentives	Communities of Practice	Capacity Building
FL	42	No	No	No	No	No
CT	43	No	No	No	No	No
NJ	44	No	No	No	No	No
NV	45	Yes	No	No	No	No
MD	46	No	No	No	No	Yes
UT	47	Yes	No	Yes	No	Yes
MA	48	No	No	No	No	No
RI	49	No	No	No	No	No
HI	n/a	Did Not Submit a Plan				