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# RURAL AND REMOTE REPAIR: EXAMINING WORKFORCE SHORTAGES AND SOLUTIONS WITHIN RURAL SCHOOL ENVIRONMENTS 

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#### Abstract

Rural schools are present in nearly every nation across the globe, and they face some unique challenges in their mission to educator students living in remote areas. Within this article, a definition of the geographic and population characteristics that define rural schools is offered, as is an examination of contemporary issues impacting the facilitation of effective primary and secondary education around the world. Concerns such as educator shortages, retaining quality teachers and concerns over technological capacity are discussed, as are avenues to resolve these issues in a proactive and cost-effective manner. There is some great teaching and learning taking place in rural schools around the world, but ensuring that all students have access to a quality teacher and opportunities for academic achievement continues to be a challenge in remote and rural regions of the world.


Keywords: Rural schools, global education, educator shortages

## INTRODUCTION

In nearly every corner and nation of the world, rural schools exist. In these remote environments, students learn and teachers teach in areas and regions that are inherently different than their partner institutions in the urban and suburban regions. While the process of teaching and learning still takes place - and much of the content taught mirrors that of other schools, the methods used and the challenges associated with providing quality education in these rural locations are unique.

In total, the number of students enrolled in rural schools is substantial. Today, nearly 1.3 billion students attend school around the world (UNESCO, 2016) and, as roughly $46 \%$ of the world's population lives in rural areas (United Nations, 2015), it can be estimated that there are nearly 600 million school-aged children living in rural regions. These rural students live in nearly every nation in the world (with the exception of non-rural city-states such as Singapore), and the process of educating these students in remote and rural regions is a continuing challenge for governments and ministries around the world. The obstacles to providing quality rural s has become even more vast in recent years due to teacher/educator shortages around the world, as rural schools are often the first types of educational institutions impacted by a diminishing labor pool.

## Defining Rural Schools

We tend to think of rural schools in a pastoral light with a focus on those institutions serving farming or agricultural-based communities, but this is often not the case (Greenough and Nelson, 2015). In many situations, rural schools exist in areas of remote geographic locations such as high alpine mountains where farming may be replaced with an expanding tourist or energy industry. In my own part of the world, numerous rural regions are centers of the ski and winter sports recreation industries, both of which are very dissimilar in their focus and structure to more traditional farming-based communities. With this in mind, there is a need to understand the distinctive nature of rural schools and rural locations in order to identify and begin to solve some of the ongoing concerns that impact the quality and accessibility of education for children in rural areas (Schafft, 2016). A viewpoint that encompasses a diverse environment

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of rural schools is an important initial step, and one that assists in the supporting a working definition of rural schools.

Many different organizations take great pains to define the term "rural school." In the United States, the National Center of Education Statistics examines the distance a school is from an urbanized center (NCES, 2006). In Sweden and part of Finland, the geographic distance needed to travel for students to attend school is a component of defining rural schools (Lind \& Stjernstrom, 2015) and in contemporary Mongolia, nearly everyone living outside three main cities are considered rural residents (UNDP, 2003). This creates a need to clearly define the term "rural" and "rural education" in a simplistic and transparent fashion. Under this umbrella, the following definitions of these terms, for the purposes of this article will be:

- "rural school" - any school that is located more than 40 driving-miles ( 65 kilometers) from an urban or suburban location. This may include locations that are in proximity to urban/suburban locations but are inaccessible due to the driving distances.
The use of this general definition may be problematic in some instances (e.g. locations where river travel is used to transport students), and it should be seen as a flexible definition that can be modified as needed when examining or focusing on schools outside of urban and suburban locations.

There are other key characteristics of rural schools that also need to be taken into account. A defining feature relates to the size of the school and/or the total number of students enrolled in rural school. While physical school size and total student population may vary, a general rule for these purposes associates rural schools to a total number of students enrolled in a k-12 (ages 5-17) school as less than 6000 (Colorado Department of Education, 2016). Further delineations have been used to define "small rural school", those with less than 1000 students between 5-17 - but for the purposes of this paper, the 6000student maximum enrollment is a general qualifying trait.

The unique nature of every rural school makes it difficult to expound on generalities associated with education in remote and rural areas. To be certain, every school has considerable strengths, and areas of needed development, but in almost all instances these components are distinct between each school even those in close proximity. While it is impossible to develop and expand upon concepts that apply to every school and every educational institution, there are some larger, more general, concerns experienced by a majority of rural schools around the world. The need to address and resolve these issues is one area of commonality that can generally be applied to all rural education environments.

## Finding Educators for Rural Schools

One significant issue found in remote and rural schools around the world is being able to find quality teachers and educators to support student learning (Mukeredzi, 2016). This issue has become pervasive in rural schools and has presented unique challenges for administrators, education ministers and parents in nearly all regions of the globe. This problem has been exacerbated in recent years as the total number of individuals interested in pursuing careers in education has been in decline throughout the last decade (Sutcher, Darling-Hammond, \& Carver-Thomas, 2016). This decline in the total number of educators entering the profession has significantly impacted rural schools - as they are frequently the first locations to experience teacher and educator shortages. Even in more developed nations, schools are often forced to forgo key academic personnel because they are unable to find anyone interested in applying for a specific teaching position. In one school in the central United States, for example, school leadership was unable to locate and employ a secondary math teacher for a period of four years - a limitation not caused by

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financial shortfalls (as may be the case in some locations), but rather due to the limited (i.e. zero) applicants interested in applying for the position (Garcia, 2017).

The reasons for the reduction in individuals interested in careers in education vary and frequently include critiques about the low pay of teachers, the long hours and the external perception of the profession (Dupriez, Delvaux, \& Lothaire, 2016). Within rural schools, these factors are exacerbated as the pay in rural schools is frequently less than jobs in cities or other neighboring towns (Fowles, 2016). In some regions of the United States, teachers are paid far below the cost-of-living for their particular region, requiring many educators to receive government support for food and housing. Combined with the concern that the hours required to be an effective educator in rural schools may exceed the time requirements found in urban/suburban regions (as many teachers have to prepare for five, six or even seven different classes every day as they provide instruction for multiple grade levels and, frequently, across multiple academic disciplines), the attractiveness of a career in a rural school may be very limited.

One of the major drivers for the diminishing interest young people have in entering a career in education is the perception by many believe that the job is difficult, not rewarding (financially or otherwise) and generally unappreciated. These perceptions are observed daily by the students themselves as they are exposed to the oft-harried nature of many of today's educators. As they observe their teachers being asked to work harder with fewer resources and little external support, many students dismiss any interest to pursuing careers as a teacher or educator. To many, the stress and limited rewards associated with a career in education are too daunting to explore the idea of becoming a teacher (Solochek, 2013). It is this trend that continues to impact the ongoing educator shortages throughout the world and there is little evidence that this trend is slowing.

## Retaining Rural Teachers

With this identified concern about attracting new teachers to careers in education, it becomes even more important for schools to concentrate efforts on retaining the current educators within their schools and ensuring that they remain in the classroom and working with students for as many years as possible. Still, patterns show high numbers of educators electing to leave the classroom, if not the entire education sector, to pursue other opportunities outside of the school structure (Donitsa-Schmidt \& Zuzovsky, 2016). As each veteran educator departs, it becomes more difficult to recruit new teachers to take their place oftentimes leading to the combining of classes into very large groups or extended periods of time where a qualified teacher is not present or available to students in rural schools.

For experienced educators, a leading reason why they elect to leave a school or the profession completely relates to the leadership within an individual school. For those teachers who work under a difficult principal, headmaster or dean - they are much more likely to leave their position and find other employment than those who believe they have a supportive or collaborative leader to work (Player et al, 2017). If significant efforts and resources were dedicated to ensuring that school leaders are effective managers and supervisors of teachers, it is believed that a significant number of educators who leave a school would be retained.

The costs associated with replacing teachers who have moved to other opportunities is also a significant concern. In the United States, it can cost thousands of dollars to recruit and hire a teacher to replace an educator that may have left the school (Watlington et al, 2010). When compounded year after year, as teacher mobility rates are projected to rise due to the ongoing teacher shortages, these costs will surely have a significant impact on school resources and funding - two elements that are frequently in short supply in rural schools.

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Another factor impacting teacher retention centers around population demographics - especially throughout North America and Europe. As the "baby boomer" generation (those born between 19461964) approach the end of their working years and begin retirement, it is expected that additional vacancies in classrooms will expand. Nearly one-third of educators in some regions are expected to retire within the next ten years, putting additional strains on the limited teacher pipelines into rural schools around the world (Aaronson \& Meckel, 2009). Several initiatives have started to try to convince these veteran-teachers in rural schools to delay retirement and continue teaching, but the impact of these efforts have not been fully determined.


## Ongoing and Pervasive Rural School Problems

It would be negligent to not highlight the concerns between the disparity of funding between rural schools and their urban/suburban counterparts. In general, rural schools are funded at a lower level than other schools within the same country - despite the additional operating costs inherent within rural schools (Zhang, Sheu, \& Wu, 2016). A prime example of this concern centers on transportation costs for students, staff and faculty within a rural school location. The costs associated with any travel, whether it be to a professional development opportunity, or sporting competition or a meeting of administrators, in rural regions often surpass the costs found within a city location due not only to the distance travelled, but the need for specialized (often larger) vehicles that can navigate difficult roads. This is but one example of the increased costs inherent within rural school operations, but it represents a larger foundational issue that centers on the need to fund rural schools at a higher level than urban/suburban schools. Unfortunately, this practice is often reversed as rural schools are frequently provided funding levels that fall below the levels of their urban/suburban counterparts.

The availability and accessibility to educational technology also impacts many rural schools throughout the world. While viable, and speedy, internet connections may be available in portions of eastern Saudi Arabia, for example, this access is extremely limited in the southwestern or more remote regions of the Kingdom. Much of this disparity of access is due to the development of telecommunications networks and rural schools continue to struggle with access to high-speed internet connections and consistent availability of other technological platforms that can help support effective education (Clifford, 2016). These access problems are even more evident in regions of the world impacted by political or economic restrictions (e.g. contemporary Iran under international sanctions on technology) where access to simplistic web-based content such as streaming video is not viable due to very slow internet access speeds.

Finally, a historic practice related to educator quality continues to impact rural schools and students throughout the world. Too often, those individuals seeking employment as a teacher or educator, who are unable to secure a job in their desired location, are placed within teaching environments that they are neither prepared nor personally invested (Kelly \& Fogarty, 2015). In some cases, teachers are placed in a remote or rural school that they do not want to be located. Even worse, teachers who are deemed "unhireable" by urban/suburban districts are provided employment opportunities in rural or remote locations. Often times, these teachers possess limited teaching experience or marginal pedagogical skills - that make them ineffective educators and ultimately have a negative impact on their students' academic achievement (Lindenberg, Henderson \& Durán, 2016).

This process of moving the least-proficient teachers to rural and remote locations is problematic at best, and unethical at a larger level. Students who are located in rural regions are often exposed to teachers who are not of the highest quality and are frequently interested in moving to another, more desirable, location

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as soon as possible. The frequency at which outstanding educators are moved to rural locations (either by their choice or as a condition of employment) is rare as the highest-quality educators tend to be housed and employed in the most prestigious and/or desirable schools in any particular region - despite the need for high-quality educators in all locations, including rural schools.

## Fixing the problem

To be certain, these issues are significant and there are no easy solutions to the complex issues related to educator shortages and the impact on rural schools. Still, there are emerging strategies that are being attempted in an effort to ensure that students enrolled in rural schools have access to strong teachers - the primary factor related to individual academic achievement (Sanders \& Rivers, 1996). Some of these strategies as outlined are viable at the individual school level, but many of them require the assistance or support of educational administrators at the state or national level. Through these combined efforts, significant shifts in the quality and access of rural educators can be developed.

One emerging technique being used to support teacher recruitment and retention for rural schools is a method of identifying those individuals with experience living in remote locations and recruiting them for potential careers in the rural schools starting at a very young age. For many new teachers coming from an urban/suburban background, the idea of moving to a remote or rural school is daunting and not especially appealing. As a result, many of these teachers are unwilling to accept a position at these rural schools or they seek employment elsewhere at the first possible opportunity (Mtyuda \& Okeke, 2016). As a remedy, several proactive schools and school districts have decided to identify current students in their schools, primarily at the lower secondary level, and begin to support them and encourage them to become educators in the hope that they will return to their school as a rural teacher. This process is commonly termed as a "grown your own" strategy, as schools are seeking to build up their teaching force with individuals who know what it is like to live and attend school in a rural location (Gagnon \& Mattingly, 2015).

With the "grow your own" approach, some schools have encountered complications related to having a graduate of their school return to teach in that same environment. Having a younger teacher who used to be a student, now return as a colleague to more established teachers, has been identified as a potential problem. Another concern centers on a limited knowledge base a rural teacher may have if he/she grew up in a rural environment and now lives and works in that same type of location. This limited perspective could have a detrimental impact on the education provided to the students in the rural school.

A key component that is also impacting teacher numbers and retention, especially in rural schools, centers around teacher compensation. Historically, many nations have typically paid educators below the median salary for worker with a similar background and education level (Rickman, Wang \& Winters, 2017). With increased professional opportunities for university graduates, fewer workers are willing to accept positions with limited salaries and benefits. Coupled with the increasing expenses of a university education and the various costs associated with living in rural areas - the role of appropriate compensation in recruiting and retaining teachers cannot be understated.

An apparent simple solution would seem to be to increase pay levels for teachers, but like many sweeping solutions, it is also problematic. Aside from the limited funds most governments have to pay teachers and other governmental workers, the dramatic increase in teachers' salaries may have other unintended consequences such as increasing economic disparity in rural regions and/or a shift of labor from other sectors into primary or secondary education. The university sector could be impacted as many of the skills

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used and refined by college professors and instructors can be transferred to the primary or secondary classroom. If there is a significant increase in the salary levels of primary/secondary teachers, it could be expected that a new shortage of labor at the university level could emerge.

A final strategy that has been pushed forward, and in some cases enacted upon, is to eliminate rural schools and shift resources to offering educational opportunities to these former rural students in urban/suburban locations. As seen in China in the early $21^{\text {st }}$ Century, many schools in the rural regions were shuttered and the students moved to boarding schools in urban centers where teachers are in greater supply and educator retention a lesser concern (Zhao \& Barakat, 2015). And while this may resolve the problems associated with rural schools (e.g. rural problems being eliminated by eliminating the rural schools), the impact on student welfare and family structure seems to be a significant detriment to the students themselves. Other efforts at consolidating schools may seem viable on paper, and may even represent a cost-savings over the long-term, but the impact on students who now may have to endure a multiple-hour bus ride to get to school would seem to offset these benefits.

## Conclusion

There are little doubt that rural and remote schools continue to be challenged by a limited labor pool interested in becoming teachers. The barriers are significant and the economic realities of living in a relatively high-cost area while earning a low-wage seems daunting to many teachers and educators in the rural regions of the world. Despite these challenges, however, these smaller, rural schools continue to provide quality educational opportunities to millions of students every day.

These schools operate and support student learning on a very limited basis in some locations. Students in some rural schools often have older textbooks, limited access to technology and less-effective teachers than their peers in suburban and urban schools. The opportunities provided to these students are simply not equivalent to those educational offerings provided to other students in more affluent or more central locations. This duality of educational opportunities seems, and is, both unfair and in many cases unethical.

The solutions to the rural-urban/suburban divide are equally complex - and do not necessarily equate to increased funding to the rural schools in any given nation or location. Above all, creative and new approaches need to be made to transform rural schools into places where both teachers and students want to attend and where academic expectations match, or even exceed, those provided to all students within a nation - regardless of the location of their school. It is hoped that the search for viable solutions continue as we look for ways to support optimal student learning in all types of schools. It is not only the primary mission for all educational institutions, but is also the conduit where all students have the opportunity to meet and exceed their own expectations - even in a rural school.

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