NURTURING THE RURAL TEACHER EXPERIENCE: LESSONS FROM THE UNITED STATES

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ABSTRACT

Rural places and schools are diverse, presenting challenges for teaching and for understanding the needs of rural teachers. The recent NCES Report on Status of Education in Rural America indicates "no measurable differences" in rural and non-rural education. However, the voices of rural teachers tell us a different story. How can we understand the needs of rural teachers? How do we nurture them, so they can give their best to teaching rural children and youth? Some answers include: accepting and supporting them and their families, supporting their efforts at all levels of school and community, educating rural community members beyond schools, reaching out and reaching in with professional development opportunities, and creating and supporting professional communities of practice. This paper views the needs of rural teachers from both broad and close-up views, considers issues of recruiting and retaining high quality teachers, and includes the perspectives of teachers from across the US.

Keywords: ***Rural Teachers, Rural Schools, United States***

1. INTRODUCTION

Rural places in the US are as diverse as the American landscape. They include majestic redwood forests of the West Coast and scrub forests of the rural Midwest, moss-hung neverlands of the Southern everglades and picturesque, painted plateaus of the Southwest. Rural America is built on long, dusty rural roads that are home to wealthy, established families, to deeply traditional and spiritual peoples dedicated to living simply, to dealers of crack cocaine and methamphetamines, and to poor migrant workers struggling to survive. Rural areas are where the annual increase in immigrants doubles populations annually, and where families steeped in generations of old ways must adjust quickly to face new challenges in the twenty-first century. These snapshots are just a fraction of the diversity of rural America.

In such places, teachers are needed who will meet a stunning array of needs, manage the challenges of governmental demands, teach to a range of subject-areas and life skills, juggle a host of extracurricular and community roles, and fuel the life aspirations of diverse children. Rural education and teachers are diverse, like the land they live and work in. Just as we cannot understand that land by mixing all of its colors and structures together, we cannot understand rural education by washing all of its contrasts to grey.

By their own admission, rural school districts often experience difficulty attracting and retaining high quality teachers. With children and families geographically and socially isolated from many other education-related resources, the strength and stability of local teaching staff is critical to educational development. Education and development are, in turn, critical to individual and community health and well-being. Given the importance of recruiting and retaining highly qualified teachers, how do we attract and develop rural teachers at all levels?

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What helps? What stands in our way? What can we do to problem-solve for these issues? These are the questions I will tackle in this address.

2. STATUS OF RURAL EDUCATION?

The US government's recent report, Status of Education in Rural America (NCES, 2007), reflects a wide-angle view and is very optimistic on demographics and outcomes. To read its summary and highlights, one would assume that rural education is in great shape. Yet many studies focused in local areas underscore needs that are inconsistent with this broad perspective, and will be missed if we all merely nod appreciatively at the USDE report and decide that the work has been done.

This report is based on the 2006 NCES urban-centered locale categories (NCES, 2006). The reclassification affected about 6% of districts, but overall produced just a 1% increase overall in districts classified as rural. In this categorization system a remote town (inside an urban cluster) may be farther from services and be characterized by the same geographic and social isolation as a rural area. Yet the two are presented as distinct groups in the NCES classifications. The range of fringe-to-remote "towns" and fringe-to-remote rural areas takes in an amazing range of areas and may mask rural differences, contrasts that are then washed out to no difference in the summary statistics of the NCES report. Overall, about half of operating districts and a third of all US schools are in rural areas, a portion that would seem to demand more attention than it gets in educational policy, until you recognize that these many schools educate only about one fourth of the students in the nation, and are located farther from government centers where their voices could be heard. Even so, some benefits have been initiated out of this report, including that the federal government now requires 30% of research done by government-funded research laboratories to address rural needs. This should mean that more research is done attending to the reality of rural issues and the needs and experiences of rural teachers; the danger, of course, is that it may still recede to shades of grey.

Even with the new classifications, the 2007 report tells us little that is surprising about rural teachers compared to non-rural teachers. They teach in smaller schools than non-rural teachers, yet the ratio of students-to-staff is not much less. Pay is lower for rural teachers, even after adjusting for cost of living, though they have similar education and experience to their non-rural counterparts. They report fewer serious behavioral problems from students and say that they are more satisfied with their resources and support from administration and parents than do their non-rural peers. According to the report, rural students face less abject poverty than most other areas, and dropout is only in the middle range, at 11% (higher than suburbs, but lower than cities). The terms "no measurable difference" occurs over and over, and anyone who spends time in rural schools and communities must ask, "Is there really no important difference, or is the diversity in fact so wide-ranging that it must be addressed locally, with a microscope rather than with this wide-angle lens?" I argue the latter.

In the diversity of rural America lie its greatest strengths and its greatest challenges. Rural is not homogeneous, though most rural places share some characteristics implicit in their classification as rural. Yet the power of rural communities to attract and retain high-quality teachers lies in their very diversity, the uniqueness of place, of culture, of personality. The challenge in research and policy is to recognize the strength and diversity of rural schools and teachers, not letting their contrasts fade to a uniform grey.

3. NEEDS OF RURAL TEACHERS

Getting teachers to come to any area, and to rural areas in particular, requires that the school district and community provide for their needs. These include jobs for spouses, safe places to raise families, quality educations for their own children, adequate salaries and compensation, and acceptance as part of the local community. In talking with hundreds of rural teachers, I have never heard one say, "I do this job for the money", and never seen that reason quoted in the research of others. Though they need to live and support themselves and their families, money is not primarily what drives rural teachers. What they say brings them is their drive to make a difference, to see youth learn and succeed, and to find a place to matter.

Keeping teachers in any area requires, in addition to what draws them, available resources to do their jobs well, ongoing opportunities for good professional development and personal growth, and positive work environments. They need current textbooks and access to supplements, activities, and the ideas of others to draw on. This access to resources is even more important for rural teachers than for their non-rural peers, as a rural teacher may be the only one teaching math or science, history or social studies in the school or the entire district, and have no proximate subject area colleagues with whom to share ideas. Teachers need to keep learning, for continued licensure and for personal growth, and finding themselves remote can challenge their professional development. In the rural North Central US, remoteness is a ten-hour drive each way to workshops, and in the Pacific Islands it is two days of island-hopping on small boats to a professional event.

4. PROFESSIONAL DEVELOPMENT

If qualified teachers are hired, even if (as the NCES Report says) rural teacher positions are no more difficult to fill, then we face challenges of inservice, ongoing professional development. One strategy for reaching rural teachers with professional development is to reach out and take it to them, such as in online and distance learning formats via technology initiatives, which are feasible if their technology infrastructure and support are adequate. Another strategy is to bring them out, to gather with peers, equip them with tools, and infuse them with ideas to take back, implement and share. This latter type of experience is the goal of many federally-funded programs for inservice teachers, which support bringing teachers from rural schools to university campuses for multi-week resident immersion programs, with training and workshops in subject area expertise and teaching strategies, peer collaboration and expert mentoring relevant to their needs and interests. Both types of professional development present challenges, and both can be expensive investments, at different levels and for different reasons.

Resident and immersion experiences are most often available in the STEM areas (science, technology, engineering and math), and have generally been found effective in situ. Yet transfer and integration to curricula are still challenges. These needs are being addressed with technology-based supports for implementation, like learning management systems (LMSs) used to support ongoing communication, mentoring, community-building and accountability goals. Generally such programs are reporting success, and the key seems to be reaching out, bringing them together, and then using the technology to sustain the intellectual energy and social connections forged on-site, on through initial transfer and implementation of learned skills, and integration of those skills and strategies into the broader curriculum model. Rural teachers often feel alone, and this feeling may be even more acute after an immersion experience, so that the program needs to be proactive in sustaining connections to combat the contrast of isolation.

Related to success of integration is the issue of fit, of coherence that new ideas have with context of rural places and resources. Professional development skills and strategies need to be generalizable enough to transfer across areas, yet simple enough to be accomplished with local tools, and practical when viewed through the lens of local culture. In many rural areas teaching innovations that require purchase of expensive equipment or allocation of extensive technological resources, or which are contextualized to particular industries, may lack feasibility or utility. Those strategies that can be locally framed and recontextualized as appropriate, and which draw on existing (sometimes minimal) resources are often most useful. This is not surprising, yet not all professional development opportunities are designed with this degree of flexibility and sensitivity, another reason that implementation and integration are often challenging. More than one rural teacher has gone to a professional development event, seen a great idea and been unable to acquire the tools to bring it home and use it. Rural teachers who were part of an immersion experience developed extensive plans for classroom applications, only to find that they could not get the necessary equipment, so they abandoned the project and defaulted to old methods. Teachers attending a national workshop loved the new ideas, but found them difficult to make meaningful in the local context and had no help to translate them, so they tried once, felt like failures, and finally set those innovations aside. Rural teachers need tools and strategies from professional development that are flexibly adaptive to the rural context, feasible with available resources, and locally meaningful. Nurturing them through professional development opportunities includes not just getting them to the events, but framing activities and providing resources in ways they can take home and use effectively.

5. GROWING RURAL TEACHERS: ORIGINS AND SELECTION

One familiar solution to the outmigration of rural talent and the lack of qualified rural teachers is to raise locally-grown teachers, to identify them early, promote a vision of themselves as educators, and encourage them to come back and give back as the next generation of rural educators. The other side of this argument is that it can produce an egocentric and in-bred community that limits rather than enhances students' exposure to diverse others. Some rural administrators have a policy of not hiring their own graduates until they have taught elsewhere for at least three years, so they bring new ideas and different perspectives back to the school, even beyond their collegiate experiences.

Growing up rural is not necessarily cause to love rural (nor to hate it), but researchers are finding that more home-grown teachers fit with their own similar rural cultures. Some administrators worry that grow-our-own will produce a closed community, but believe that attracting those from similar places who have seen the larger world creates balance. This means that teachers in Anywhere, America need not be from Anywhere, but it often helps if they are from a place like it. Teachers raised in rural areas may more easily recognize the assets of local values and work within the local environment to leverage its benefits for teaching. Linking to and integrating the local area into teaching can be a powerful asset, as arguably the single most powerful factor predicting learning and development across contexts is relevance. Relevance makes the content matter, as it is connected to students' current experience and knowledge, to their personal and professional interests, and to their future goals, making school meaningful and important, rather than separate and esoteric. This requires connecting learning to students' prior knowledge and their contexts of understanding, the worlds they know, whether agriculture or petroleum, meat-packing or forestry, then reaching out with that understanding into a broader world. Linking teaching and learning to local area and culture can transform what may at first seem to be limitations into enablements for learning, and those who understand the culture and place may do that more easily than those foreign to it. Alternately, a wise teacher who does not

understand the local culture can make a point to learn about it and then leverage that knowledge in the classroom and beyond it.

Being from within the region means that teachers know how to survive the weather and the often-long rural commute to shopping and other services. In the Northern states of the US, they are not intimidated by ice and snow, in the Southwest by tornadoes and perishing heat, and in the West by earthquakes. It can also mean a familiarity with local people groups and their cultures, often critical in education, linking needs to family and community.

Being from an area of similar size within the region may enable teachers to accept the local rural culture more easily, its expectations, unwritten rules, and local rituals. Outsiders may question them more, and need to negotiate understanding. One teacher from a Western suburban area, teaching in the rural Midwest had difficulty getting used to youth gathering for socials around bonfires. She had seen a news story about unsupervised youth in another area dealing crack cocaine, and she worried that similar activity was possible here. Wisely, she inquired, satisfied her concerns, and finally accepted the tradition. Another new teacher from an urban area, teaching in the rural Southwest was initially judged as uncaring for not attending after-school sports and extracurricular activities. He had no responsibility for sports or related activities, so why should he go? The students and families expected all teachers to attend such events at least sometimes, and support the youth at all of their activities. He-who-did-not-go must not really care about the kids. This expectation was not in the teacher's job description, yet it was very real and had important implications for his credibility and effectiveness as a teacher in that school and community. Making these kinds of personal and social rules and expectations clear to new teachers from the outset is one strategy that helps them start strongly and avoid misunderstandings. Mentoring by administrators or by experienced teachers is important for more than just classroom strategy and management, and extends into learning to manage the culture of place that is rural America.

Preparing teachers who are not from rural origins to work within rural areas can also be accomplished with university courses and programs that address rural diversity, culture and community. Beyond coursework the intentional placement of student teachers in rural places that match their interests and background can facilitate their choice to teach in rural places after graduation. Many rural teachers say essentially what one teacher told me recently, "I came to a rural school by accident, but I stayed by choice." Many teachers tend to fall in love with rural schools, students and families if they are exposed to each other in positive ways that promote understanding and acceptance on both sides. That understanding carries them past a host of issues to achieve fit in the local community and to develop the desire to stay.

6. LIVING AS RURAL TEACHERS

A related issue is whether to live inside or outside of the community. Some teachers live outside the school community due to feelings of constraint or some particular elements of the community dynamic. One teacher told me in an interview that everyone in the small town where she lived and taught was expected to go to church on Sunday morning. Not being comfortable with the only car still in the driveway on Sundays, she went to a neighboring town and met a friend for a weekly breakfast. She had avoided looking the heathen, but was considering moving slightly farther away and commuting in. Others may choose to live outside because of the employment needs of their spouses or lifestyle choices for their families. No matter how much a teacher wants to reach rural children, practical needs exist. One rural teacher shared that while she would like to live closer to school, her husband's job and child's doctors kept her resident in a town over an hour away. This made it hard to come early, stay

late and connect with students' families as her colleagues did, and the commute in Midwest winters was beginning to wear on her. It was only her dedication to her students that had kept her hanging on for four years. For these teachers, nurturing consists of being accepted and supported in the community, accepted for who they are. If they are accepted and supported, these teachers can devote more time and attention to teaching well, a winning outcome for the whole community.

Another type of community important for rural teachers is the professional community of learning and practice. Teachers in rural schools often lack peers in teaching. Mrs. Smith is the only science teacher in her rural secondary school, and teaches every course from 7th grade Basic Science to Advanced Chemistry and Physics. She yearns to bounce ideas off someone else doing the same work, but has no one locally. She can go to the publisher's resources or the Internet for ideas and finds those useful and relevant for professional development, but she would be nurtured by having a community of colleagues to learn with and from. The cohort-based immersion programs and state subject area workshops are helpful here, for teachers to link up and share. Some teachers sustain these linkages and continue sharing after they go home, by phone, email or other methods, but only a few teachers can invest the time to participate in these opportunities. But more intentionally scaffolded communities of practice could promote nurturing for teachers like Mrs. Smith, and could reach a larger group than she might meet at any given on-site event. Recently virtual and digital communities are emerging, options that some teachers will take advantage of, but others will not.

7. RURAL PLACES AND RESOURCES

We have not yet adequately defined rural places in the US to the satisfaction of researchers, policymakers and local stakeholders. We do have the old and new definitions and classifications at various levels of government. Yet experts in rural research point out that no simple definition is adequate to capture the concept and reality of rural places in America (Coladarci, 2007; Flora, Flora & Fey, 2003; Hardré, 2007). Instead, they call for expansion of our conceptualization and documentation of what constitutes rurality. Other long-time rural researchers exhort us to include local values and cultures more fully into how we understand rurality. What is clear in this debate is that how we define and classify rural places has everything to do with how we understand them, the people who live and work in them, and the education that takes place there. We recognize that across a range of rural communities in the nation, schools often become social as well as educational centerpieces of their communities, and as such they gain identity and potential to transform social life and values, to the extent they have resources to invest in such efforts.

Many rural places still lack resources for teaching and for teacher learning. Professional development and continuing education are improving, through reaching in and reaching out; these have improved but smooth transitions are still effortful. Technology in teaching has improved, with better connectivity through federal grants and state-level commitments to funding infrastructure and networks. In-house tools are improved in many places, largely through grants and funded programs, but also through innovative business-school partnerships in many communities. In addition to funding school needs, partnering with community leaders and businesses opens up opportunities for students, such as exposure to careers they may not have considered, and the ability to work with professional role models.

Even with grants and partnership opportunities available, money is still a problem for many rural schools. For some the hard part is writing the grant, with no staff grant writers (which larger, urban and suburban districts have increasingly), no funds to attract them, and isolation

from higher education partners that may assist urban and suburban schools on grants. Sometimes funds are allocated, but schools are unable to access them. This circumstance, in the words of one rural teacher, "leaves us like hungry people looking at a feast just out of reach." State agencies are initiating efforts to bridge these gaps, working with State Regents who have responsibility to support and facilitate access to postsecondary education for all students, regional education labs and Centers, offering training and development on grant-writing, and partnering on grant-funded resources, to help rural schools reach the feast. However, once again the isolation of rural teachers makes it harder for them to travel to and take advantage of these events and opportunities. Technology is playing a role here also, with the caveat that a lack of technology access may still be a deficit in rural schools. Rural places are also more able to retain teachers if they have educational and community resources to meet the needs of the teacher's family. Many teachers have a heart for rural kids, but also harbor concerns about the appropriateness of this environment and peer group for their own offspring.

8. RESEARCH TRENDS

Like research on other marginalized subgroups, rural research has moved from somewhat simplistic stereotyping to more realistic recognition of authentic diversity. More research is acknowledging the complexity of local needs, and larger studies are no longer treating rural subgroups just as "country cousins" but as legitimately different. Researchers are recognizing that it is more than size or population, geographic remoteness and poverty that characterizes rural places. In addition there are a host of more complex and localized factors with important implications for education. These shifts to broader perspectives give me hope about the future of rural education research, especially with the inclusion of closer attention to teachers' needs, perceptions and experiences.

Important developments to support research continue to include what we understand as rural, how we fund and support rural research, and how we prepare the next generation of rural educators and researchers. It is necessary to continue working to refine our understanding of rurality, not just in the parameters of the NCES or governmental documents, but as a community of rural researchers. It is encouraging that the federal funding allocation shifted to rural, such as the requirement that 30% of research done by research centers must be allocated to rural needs, but attention must still be given to how that allocation is managed and that it provides information useful in supporting the nurture of rural teachers. Universities around the country are developing special programs addressing rural needs, preparing teachers for rural areas, including rural concerns and specializations in educational leadership to prepare rural administrators.

More research is being done that focuses on the experiences of rural teachers, and this trend needs to continue and expand. Researchers are demonstrating sensitivity to the balance of local specificity and greater rural extension and application, attending to how their findings make sense at home, and also how they may add value and meaning for other rural schools, teachers and communities. This balance has been an historical problem and perennial challenge of rural research. What we learn from research on the best and worst experiences of rural teachers in Anywhere, America, should help us frame efforts, programs, initial education and inservice professional development to nurture rural teachers elsewhere. This is a tremendous promise of these positive current trends in rural research.

9. LEARNING THAT GOES BOTH WAYS

In addition to learning to meet the needs of rural students, families and communities, we need to educate rural communities, parents and leaders about the needs of teachers and schools. This includes respecting their intelligence and acknowledging their interest in students' success, or as needed intervening in cases of true ignorance or lack of home support. Support from parents is an often-cited critical element of school success, and teachers who know that parents back them up are more confident in doing their jobs. Federal programs allocate millions of dollars annually to whole–system education, to facilitating change efforts that reach more than students. Systemic programs acknowledge that while educating students and teachers is good, including parents and community leaders offers potential for much deeper reaching and longer-lasting change that resonates through communities. In one US state an ethnically German community boasts great stability of teaching staff, with an average of over 20 years, and very little turnover. Asked why they stay, teachers unanimously cited parental support. Whatever teachers decide is necessary for students to do to learn and be successful in school, parents back them 100%. Teachers with this level of parental support and commensurate student respect and compliance are not likely to go elsewhere. Bringing parents and community members into the educational effort helps offload what is too often a sole burden for teachers, and schools have been surprised to find that some parents were waiting, willing and wanting to help, but needing to understand how.

Positive effects for students can also have a residual positive effect on teacher confidence and satisfaction. Put simply, as teachers see students succeed, they see their labor bearing fruit, gain confidence, are energized, and continue to put forth effort. Rural teachers are not often in the job for the money, but for the difference they believe they can make. As they make that difference, they invest and persist, experience energy instead of frustration and fatigue that lead to giving up. This reciprocal effect of success occurs through renewal of perceived effectiveness and competence, and nurtures teachers in a dynamic way. Whether it is a winning academic team, improved test scores, or just one student gaining interest and doing homework, seeing and celebrating success nurtures teachers. A school climate where successes are shared and mutually celebrated can promote confidence and renewal, especially if it includes small as well as great moments. For the teacher who is celebrating, it's a triumph, and for colleagues it can be a model and inspiration. This element of nurturing falls under the control of administrators, who can take responsibility for celebrating successes in their schools.

Mentoring is an important component of teaching success and support. In small rural schools the match of mentors may be more challenging than in larger schools, but innovative matching can yield great benefits. Mentors, as more experienced in teaching overall and in the community, can help a new teacher find resources for success, make judgments about how to communicate with families, and negotiate local cultural challenges. One-to-one mentoring utilizes the human side of the rural dynamic, can reduce isolation, confusion, and frustration, and help new teachers settle in and see success sooner. Perhaps even more than in non-rural settings, a good mentor in the rural school is a treasure, and an investment in mentoring can keep good teachers energized, and promote retention when without the interpersonal connection they may have gone elsewhere.

10. CLOSING THOUGHTS

My examples here have come from articles and research projects, mine and others', done largely in the US, but these lessons don't end there. Based on the time I have spent with teachers and

administrators from the rural US, Russia, China, Taiwan, Kenya, Tanzania, South Africa and Mexico, it is clear that many of these principles are shared across national and cultural lines. Rural teachers in many places feel isolated, lack instructional resources that their urban and suburban counterparts have, feel remote from similarly-minded colleagues, and yearn for innovative ideas and professional development opportunities. These needs may not surprise us, but they should concern us. We need to act on the ways we already know to nurture rural teachers and make their lives better. And we need to keep working at research that continues to reveal more ways to nurture them, support, develop and encourage them, so they can invest 100% in the education of our rural children and youth.

RELATED ARTICLES

Ballou, D. & Podgursky, M. (1995). Rural schools: Fewer trained teachers and special programs, but better learning environment. *Rural Development Perspectives, 10*, 6-16.

Barley, Z. A., & Beesley, A. D. (2007, January 10). Rural school success: What can we learn? *Journal of Research in Rural Education, 22*(1). Retrieved 5/25/07 from http://www.umaine.edu/jrre/22-1.pdf.

Coladarci, T. (2007, May 24). Improving the yield of rural education research: an editor's swan song. *Journal of Research in Rural Education, 22*(3). Retrieved 5/25/07 from http://www.umaine.edu/jrre/22-3.pdf.

Coladarci, T. & Cobb, C. D. (1996). Extracurricular participation, school size, achievement, and self-esteem among high school students: A national look. *Journal of Research in Rural Education, 12*(2), 92-103.

Colangelo, N. Assouline, S.G., & New, J. K. (1999). *Gifted education in rural schools: A national assessment.* Iowa City, IA.: University of Iowa Press.

D'Amico, J., Matthes, W., Sankar, A., Merchant, B., & Zurita, M. (1996). Young voices from the rural Midwest. *Journal of Research in Rural Education, 12*, 142-149.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum.

Flora, C. B., Flora, J. L. & Fey, S. (2003). *Rural communities: Legacy and change* (2nd ed.) Boulder, CO: Westview Press.

Fowler, Jr., W. J., & Walberg, H. J. (1991). School size, characteristics, and outcomes. *Educational Evaluation and Policy Analysis, 13,* 189-202.

Gándara, P. Gutiérrez, D. & O'Hara, S. (2001). Planning for the future in rural and urban high schools. *Journal of Education for Students Placed At-Risk, 6*(1), 73-93.

Hardré, P. L. (2008). Taking on the motivating challenge: Rural high school teachers' perceptions and practice. *Teacher Education and Practice, 21* (1), [Sept 08]

Hardré, P. L. (2007). Preventing motivational dropout: A systemic analysis in four rural high schools. *Leadership and Policy in Schools, 6* (3), 231-265.

Hardré, P. L., Crowson, H. M., DeBacker, T., & White, D. (2007). Predicting the academic motivation of rural high school students. *Journal of Experimental Education ,75* (4), 247-269.

Hardré, P. L, & Sullivan, D. (2008). Teachers' Perceptions and Individual Differences: How they Influence Teachers' Motivating Strategies. *Journal of Teaching and Teacher Education, 24* (8), 2059-2075.

Hardré, P. L. & Sullivan, D. (in press, 2008). Student Differences and Environment Perceptions: How they Contribute to Student Motivation in Rural High Schools. *Learning and Individual Differences.*

Hardré, P. L., Sullivan, D. W., & Roberts, N. (2008). Rural High School Teachers' Best Motivating Practices. *The Rural Educator, 30* (1), 19-31.

Holloway, D. L. (2002). Using research to ensure quality teaching in rural schools. *Journal of Research in Rural Education, 17*(3), 138-153.

Howley, C. B., Theobald, P., & Howley, A. A. (2005). What rural education research is of most worth? A reply to Arnold, Newman, Gaddy, and Dean. *Journal of Research in Rural Education, 20*(8). Retrieved 5/21/07 from http://www.umaine.edu/jrre/20-18.pdf.

Jacobs, J. E., Finken, L. L.,Griffin, N. L. & Wright, J. D. (1998). The career plans of science-talented rural adolescent girls. *American Educational Research Journal, 35*, 4, 681-704.

Kao, G. & Tienda, M. (1998). Educational aspirations of minority youth. *American Journal of Education, 106*, 349-384.

Khattri, N., Riley, K. W. & Kane, M. B. (1997). Students at risk in poor, rural areas: A review of the research. *Journal of Research in Rural Education, 13*(2), 79-100.

Lemke, J. C. (1994). Teacher induction in rural and small school districts, in Rural partnerships: Working together, D. Montgomery (Ed.). Proceedings of the annual National Conference of the American Council on Rural Special Education, Austin, TX. (ERIC Document Reproduction Service No. ED 369 589).

Maehr, M. L. (1991). The "psychological environment" of the school: A focus for school leadership. In P. Thurston & P. Zodhiates (Eds.), *Advances in educational administration* (Vol. 2, pp. 51-81). Greenwich, CT: JAI.

Maehr, M. L. & Midgley, C. (1996). *Transforming school culture*. Boulder, CO: Westview Press.

National Center for Educational Statistics (2001). NCES Website, "What's Rural?" Accessed 22 February, 2001. Available at: http://nces.ed.gov/surveys/ruraled/definitions.asp

National Research Council (1993). *Losing generations: Adolescents in high-risk settings.* Washington, DC: National Research Council Panel on High Risk Youth, National Academy of Sciences.

Regional Educational Laboratory at AEL (2003). Recruiting and retaining high-quality teachers in rural areas. AEL Policy Brief. Charleston, WV: AEL.

Stern, J. D. (Ed.) (1994). *The condition of education in rural schools.* Washington, D.C.: OERI, United States Department of Education.