Challenges Facing Rural Schools: Implications for Gifted Students

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In this paper, we discuss the implications for gifted students of challenges facing rural schools. We explore 4 challenges with particular relevance to rural schools: (a) declining population, (b) persistent poverty, (c) changing demographics, and (d) ongoing accountability requirements. Recommendations positioned to address these challenges include providing special instruction using distance education, making use of broad definitions of giftedness, making use of various acceleration strategies, and encouraging talented students to plan for meaningful careers in their home communities.

Introduction

The purpose of this paper is to review relevant literature—particularly literature published in the past 5 years—that helps explain how challenges facing rural schools impact gifted students. These challenges are not new, and they certainly have an impact on many students in these schools, not just those who are gifted. Nevertheless, we believe that the challenges and schools' responses to them have different ramifications for gifted children than for other, nongifted peers.

Arguably these challenges give educators opportunities to explore creative alternatives, but challenges often elicit restricted and conventional responses (e.g., see DiMaggio & Powell, 1983). For example, in many rural schools, educators persist in using age-based grouping even when students of various ages are placed in the same multiage classroom. And often, rural districts ask teachers of the gifted to travel to several small schools—an approach that not only

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contributes to teacher burnout but also consigns students to special instruction that tends to be both time-limited and superficial.

Furthermore, even creative responses are likely to have different impacts on different groups of students. Approaches selected by rural schools—even those with a great deal of promise for most students—may or may not provide particular benefits to gifted students. In addition, only some school districts address challenges strategically. Many take a reactive stance, grudgingly changing to meet external demands in predictable ways (e.g., Sarason, 2002). In order to illustrate these dynamics and their likely implications for the education of gifted students, we explore four challenges with particular relevance to rural schools: (a) declining population, (b) persistent poverty, (c) changing demographics, and (d) ongoing accountability requirements.

Declining Population

Despite considerable variability, many rural regions of the United States, especially those that are more remote, have been losing population (McGranahan & Beale, 2002). Some commentators also talk about a related issue—the loss of the most highly educated people from rural areas, a phenomenon sometimes referred to as "brain drain" (Artz, 2003). Not only researchers, but rural residents as well are aware of the tendency for children to leave rural communities once they receive a college degree. In fact, some families discourage their children from attending college in an effort to keep them from leaving (e.g., Corbett, 2007). Their concerns, moreover, seem well founded: In general, young people who leave rural communities never return (Stricker, 2008).

Not only do families and communities suffer from out-migration, schools also experience negative consequences. Because of reduced enrollment, schools receive less funding, and, with fewer resources, they find it difficult to offer specialized courses and services. Pressures to close or consolidate schools often become intense, particularly in states where policies require school closure under certain conditions or provide incentives for increasing school size (Colangelo, Assouline, & New, 1999; Lawrence, 2001). In addition, once educators raise the possibility of consolidation, they often alienate community members

(e.g., Peshkin, 1982). Unlike the educators, whose view of consolidation is based on an interest in using resources efficiently, rural citizens think about consolidation in relationship to the survival of their communities (Peshkin, 1982; Post & Stambach, 1999).

Another option, of course, is for small rural schools to remain open. And in some districts, educators choose to augment the curriculum through the provision of distance learning opportunities (Colangelo et al., 1999; Southwick, 2003). Schools provide foreign language courses and advanced courses, sometimes including Advanced Placement courses, to many rural students through this mechanism (e.g., Barbour & Mulcahy, 2006; McBride & Lewis, 1993; Murphy & Coffin, 2003). Dual enrollment arrangements (e.g., between high schools and local 4-year and community colleges) provide another way for small rural schools to expand their curricular offerings (Johnson & Brophy, 2006). Interestingly, a recent initiative designed to provide early college experiences to high school students discourages the inclusion of gifted and talented students in its innovative schools and programs ("The Early College High School Initiative," 2008).

Consequences for Gifted Students

In many rural schools, gifted students, particularly those whose achievement reflects their ability, are likely to be identified by their teachers as "college material" (C. B. Howley, A. Howley, & C. W. Howley, 2006). In addition, according to Colangelo and colleagues (1999), the messages communicated through gifted education programs may predispose bright students to look beyond their communities for meaningful career opportunities. Parents of some of these students also expect their children to attend college, and they may even accept as inevitable that their children will leave the community in order to obtain suitable employment (Corbett, 2007). Other parents expect their children to remain in the community, and the difference between their expectations and those of the school may seem confusing or distressing to their children (Woodrum, 2004).

One hopeful resolution of these conflicting expectations occurs when capable students decide to seek or create employment opportunities for themselves in their rural communities, whether or not

they pursue a college degree (Lawrence, 2001; Woodrum, 2004). Clearly, the choice to invest their energies locally would add to their communities' resources, and such investment is likely, therefore, to improve their communities' prospects (Lawrence, 2001). Likewise, the idea of "giving back to the community" is consonant with the values that many rural families impart (A. Howley, C. Howley, Burgess, & Pusateri, 2008).

In the not-too-distant past, high school graduates from agricultural communities routinely left home to attend college and then returned to their home communities to farm or to work as professionals in nearby towns (e.g., Lyson, 1979). With the consolidation of family farms into very large commercial enterprises, however, fewer and fewer of these opportunities now exist (e.g., Hoppe, MacDonald, & Banker, 2006). Nevertheless, some educators and community organizers are expanding entrepreneurship opportunities by offering schools programs that prepare graduates to establish or work in local businesses (C. B. Howley & A. Howley, 2008).

Even if rural schools do not explicitly tie instructional programs to community economic development, they can use a variety of strategies to bring advanced instruction to their students. Some of the approaches that rural schools are using, in fact, seem particularly well-suited to the needs of the gifted. For example, several research teams have reported on gifted students' success and satisfaction with advanced courses offered through teleconferencing and other distance education arrangements (Adams & Cross, 1999–2000; Gilbert-Macmillan, 2000; Olszewski-Kubilius, & Lee, 2004). As well, dual enrollment, which is increasingly gaining popularity as a remedy for dysfunctional high schools and as a way to encourage college persistence, was originally used to provide accelerated instruction to gifted students (Karp, Calcagno, Hughes, Jeong, & Bailey, 2007; Klein, 2007). Because this approach has been reframed as an option primarily for disaffected students, gifted educators might find it necessary to draw on the research about the benefits of acceleration as a way to convince colleagues that the approach is still especially helpful to gifted students.

Interestingly, there is some evidence suggesting that small schools are better able than larger schools to accommodate individual needs, such as those of gifted and talented students (e.g., A. Howley & C.

Howley, 2006). Although no one would welcome depopulation of rural communities as a way to keep schools small, students in these communities would be well-served if policy makers ceased to view school consolidation as the only viable strategy for dealing with declines in enrollment. Rather, policy makers should think about providing incentives to rural schools in order to encourage them to make use of distance learning and dual enrollment arrangements on behalf of all students who might benefit from these options.

Persistent Poverty

Although current data reveal improvements in the economic conditions in some rural locales, many rural places still experience persistent poverty. In fact, according to U.S. Census (2006) information, from the 1960s until the present, poverty rates in nonmetro areas have exceeded poverty rates in metro areas. During the 1990s, however, the percentage of impoverished children in rural areas decreased to just above that of their urban counterparts (Economic Research Service, 2004). In addition, some evidence suggests that the number of highly concentrated nonmetro "pockets" of poverty is declining, even though rural poverty still remains geographically concentrated (Lichter & Johnson, 2007). Despite evident improvement, "persistent poverty" rates among rural populations remain disproportionately high; of the 386 counties that have sustained poverty rates of 20% or higher since 1970, 95% are rural (Murray & Schaefer, 2006). Likewise, rural minorities continue to reside in areas of exceptionally high poverty (Economic Research Service, 2004).

Below-average funding—a condition associated with low income and low wealth—is a serious problem for many rural schools in impoverished regions (e.g., Maiden & Stearns, 2007). Funding problems are particularly severe in states where local property taxes contribute heavily to school funding (Dayton, 1998). But even with regard to federal allocations, rural places do not fare as well as urban and suburban locales. According to information from the 2007 Congressional budget, urban and suburban school districts receive $5.5 billion more each year than rural districts, evidence according to advocates that "rural people and places have suffered a differential

federal funding disadvantage for some time" (Rural Policy Research Institute, 2006, p. 4).

Low levels of funding also contribute to rural districts' difficulty in attracting and retaining qualified teachers (National Center for Education Statistics, 2007). As Jimerson (2003) noted, "Across the county, rural teachers are paid less than teachers in other locales. This is true for beginning salary, average salary, *and* highest salary on the pay scale" (p. 8). Also, rural districts have a more difficult time than many other districts in finding teachers to work in high-need areas such as mathematics, science, and special education (Hammer, Hughes, McClure, Reeves, & Salgado, 2005; Paul, 2005; Rosenkoetter, Irwin, & Saceda, 2004). These conditions have produced a teaching force in rural districts that tends to be less experienced and less well educated than the teaching force in districts in other locales (Monk, 2007).

The impact of poverty on rural schools is exacerbated by the No Child Left Behind Act (NCLB; 2008) with its focus on inflexible standards of teacher quality and increased reliance on standardized testing. Rural districts experiencing persistent poverty are forced to use already limited funds to expand their assessment systems as well as to initiate and sustain special remediation programs positioned to improve students' test scores (National Association for Gifted Children, 2005). Because of the relatively strong association between poverty and low academic achievement, poor rural districts may find themselves devoting far more attention to remedial education than to enrichment of any sort (e.g., Booher-Jennings, 2006; Reeves, 2003).

Consequences for Gifted Students

Without question, the effects of persistent poverty on the lives and education of gifted youth in rural communities can be extremely deleterious. Living in poverty contributes to a broad range and widely recognized set of stressors (Evans & English, 2002). In fact, poverty influences every part of children's lives—their nutrition, housing, health care, safety, psychological adjustment, cognitive development, and material well-being (Evans & English, 2002).

With regard to education in particular, various conditions in rural schools serving low-income communities—distance to programs and services, accessibility to resources, transportation to extracurric-

ular activities, and limited interaction with other high-achieving students—hamper opportunities for gifted students (Cross & Burney, 2005). As a result of these conditions, gifted students may not receive the critical academic stimulation and enrichment needed to support their full cognitive, social, and academic development.

As well, in low-funded districts, the need to use human resources in the most efficient ways possible may limit the extent to which special personnel can be assigned to work with gifted students (Collins, 1999; Lewis & Hafer, 2007). Additionally, because resource limitations require that priority be given to meeting the needs of as many students as possible, principals may be reluctant to ask already overburdened teachers to take on the extra work associated with differentiating instruction for gifted students. In contrast to suburban and urban counterparts, teachers in rural schools typically must assume many different roles (Hammer et al., 2005).

Not only does persistent poverty severely constrain the educational opportunities available to gifted students, it also fosters a sense of hopelessness and reinforces the notion that these students have little choice but to leave their rural communities upon graduation (PBS, 2005). Parental and community support are critical to ensuring that the academic, social, and emotional needs of gifted students are met; and numerous studies show how poverty keeps many adults from having either the time or the resources to provide effective forms of support (e.g., Lareau, 1989). In addition, parents are unlikely to support what they do not understand or value. For example, according to Cross and Burney (2005), rural parents are not likely to support student involvement in gifted programs that take place in the evenings or on the weekends and that therefore interfere with taking care of family responsibilities. Care of siblings, household chores, work to help support the family, or work in family businesses all may limit the time available for participation in opportunities designed to promote the academic success of gifted students.

Another set of problems confronting gifted students in impoverished rural schools relate to their identification. Even when teachers in these schools are well-acquainted with the characteristics of gifted children in general, they may not recognize the characteristics of high-ability students from economically disadvantaged or culturally diverse backgrounds. Training in culturally appropriate methods for

identifying rural, economically disadvantaged gifted students enables educators to recognize very bright students who might otherwise be overlooked (Spicker & Poling, 1993). Underfunded districts, however, may lack the resources to provide the kinds of professional development needed to help teachers learn more about the characteristics of gifted children from different kinds of backgrounds.

Finally, limited funding and difficulty in finding teachers with specialized training may constrain rural districts from providing advanced course work. Whereas gifted students can be appropriately served in upper level mathematics and science classes or Advanced Placement classes, such options may be relatively rare in poorly funded rural districts (e.g., Zarate & Pachon, 2006).

Although poverty imposes some major barriers to the education of gifted students in rural school districts, reports from projects in some such districts provide hope. Several research studies, for example, demonstrate the effectiveness of using technology, such as teleconferencing, interactive video, and e-classes, to provide advanced coursework to bright students, even in districts serving low-income students (Barbour & Mulcahy, 2006; Lewis & Hafer, 2007). And a variety of acceleration strategies—often imposing no additional costs whatsoever—can be used to good advantage in impoverished rural districts (A. Howley, 2002).

Changing Demographics

Rural areas across the country are experiencing rapid demographic changes, the result of which is markedly increased diversity in rural school and communities. From 1995 to 2004, rural schools in the United States reported a 55% increase in minority students. Twenty-three percent of rural students, that is, more than 2 million of them, are now classified as minorities. Several states, including Hawaii, New Mexico, Alaska, Arizona, and California, report that minorities make up more than 50% of their rural student population. Whereas these states have traditionally had large numbers of minority students, the states with the largest percentage of growth in their rural minority populations are those that in the past have had smaller percentages of minority students. Illinois, for example, has experienced

the greatest change, with a 135% increase in rural minority students over the past 10 years (Rural School and Community Trust, 2007).

Increased diversity in America's schools has changed the ways in which educators and policy makers view the academic achievement of students from minority groups. Notably, the No Child Left Behind Act of 2002 holds school leaders and teachers accountable for all students' academic achievement, regardless of race, socioeconomic status, or disability status. Changing demographics paired with pressure from the federal government to meet all students' academic needs have encouraged educators to address diversity in their schools.

Rapid changes in student populations, however, present challenges to schools and communities. These challenges can be particularly intense in schools and communities, such as those in many rural places, where traditional beliefs and practices are valued highly (A. Howley, Woodrum, & Pendarvis, 2005). In addition, demographic changes often create tension between new and long-term community members over conflicting cultural values (Chavez, 2005). Complicating diversity itself are the instabilities associated with a transitory workforce—an increasingly common labor pattern in rural communities with economies based in large-scale agriculture and food-processing (Grey, 1997). According to some writers, schools struggle to meet the academic needs of diverse students because of those students' limited proficiency with English, their cultural differences, and their transience (Dorfman, 2000).

Educators can easily find themselves overwhelmed by these issues, and many feel ill-prepared to meet the needs of their increasingly diverse student bodies (McCray, Wright, & Beachum, 2004; Williams & Portin, 1997). Despite the difficulties, however, some rural schools are finding ways to address issues associated with diversity. For example, Williams (2003) described efforts in three rural schools to use place-based education as a way to increase the achievement of students from minority groups. As rural schools look for educational practices to meet the needs of their diverse students, they may receive help from educational service centers (Harmon, 2003). These regional agencies provide relevant professional development, multicultural curriculum materials, and, in some cases, direct services to English Language Learners (ELL) and migrant students.

Consequences for Gifted Students

Gifted educators across the country have expressed concern over the small numbers of culturally diverse students who are identified as gifted (Baldwin, 2004; Briggs, Reis, & Sullivan, 2008). In 2004, 7.9% of White students and 11.9% of Asian students were identified as gifted in comparison to 3.5% of Black and 4.3% of Hispanic students (National Center for Education Statistics, 2007). As rural areas experience increased diversity, teachers who once served primarily homogenous populations are now faced with the challenge of identifying and nurturing giftedness in students from many different cultural backgrounds. Doing so is not likely to be any easier in rural schools than in schools in other locales in the United States.

Minority students, for example, are excluded from gifted programs across the United States for several reasons. First, educators continue to rely more heavily on IQ tests than on other methods to identify gifted students, even though limited English proficiency and cultural differences can adversely influence standardized test scores such as those obtained on IQ and achievement tests (Baldwin, 2004; Lockwood, 1998). Second, ELLs are often misplaced in remedial classes either because of their incomplete fluency with English or because of their teachers' cultural biases. This circumstance greatly limits their chances of being considered for placement in gifted programs. Finally, as the previous discussion suggested, poverty also limits minority students' involvement in gifted programs. Although poverty is prevalent among rural residents in general, it is even more prevalent for those rural residents who belong to minority groups (Hébert & Beardsley, 2001; Lockwood, 1998).

Because rural schools, like those in other locales, have the responsibility to identify and serve *all* gifted students, they should make the sorts of changes that enable educators to identify more minority gifted students and serve them in special programs. Foremost, school personnel must make a commitment to include diverse students in these programs (Hébert & Beardsley, 2001). This commitment might then lead them to make policy changes, provide professional development to teachers, and increase staffing—efforts contributing to more appropriate strategies for identifying and serving minority gifted students. For example, some writers suggest that a broader

definition of giftedness, such as one that values Howard Gardner's multiple intelligences or one that views bilingualism as a special talent, enables educators to locate more gifted children from minority backgrounds (Baldwin, 2004; Lockwood, 1998).

Schools can also make changes to better serve minority students once they are identified. Staffing can be particularly challenging in rural schools, where there are lower percentages of teachers with special expertise. One way to overcome this problem is to encourage collaboration between teachers. For example, a gifted teacher might collaborate with an ELL teacher to design a program that provides bilingual learning to all of the students in a school (Lockwood, 1998). Another strategy is to use technology to provide special instruction to diverse gifted students. Some rural schools already use video conferencing to offer Advanced Placement courses. The same technology might be used to connect rural bilingual students to other gifted students around the world (Hébert & Beardsley, 2001).

As rural America becomes more diverse, schools must make a commitment to identify and serve gifted students from all population groups. Their efforts might include developing a more inclusive definition of giftedness, adopting new identification procedures that reduce cultural bias, and finding creative ways to connect rural gifted students with caring and knowledgeable teachers.

Ongoing Accountability Requirements

During the late 1980s and early 1990s, following the publication of *A Nation at Risk*, state governments became concerned about schools' academic performance, and they instituted legislation and policies intended to hold schools and districts accountable for student achievement (Evers & Walberg, 2002; Thomas & Brady, 2005). These state efforts, moreover, intensified with the 2002 reauthorization of the Elementary and Secondary Education Act, also known as No Child Left Behind (Rakow, 2008; Thomas & Brady, 2005). Associated with the accountability requirements, first at the state and later at the federal level, were incentive systems that provided rewards, sanctions, or both to schools and districts on the basis of

their annual academic performance (Nichols, Glass, & Berliner, 2006; Popham, 2005).

Educators in many rural schools and districts, especially those with high rates of poverty, appeared to respond to the increasingly stringent systems of accountability with some defensiveness (A. Howley, Larson, Andrianaivo, Rhodes, & M. Howley, 2007). In part these educators recognized that their districts' performance did not meet the standards their states were requiring (A. Howley et al., 2007). But, in part, they also realized that in schools with few students, apparent increases and decreases in performance are likely to result from chance rather than from actual changes in student performance (Jimerson, 2005).

Whatever their reactions, rural educators joined colleagues across locales in responding to accountability regulations by narrowing the curriculum, returning to direct instructional methods, and explicitly teaching to the test (e.g., Lamb, 2007; Smyth, 2008). Furthermore, they often resorted to *educational triage*, the practice of rationing instruction primarily to students whose scores are likely, as a result of extra help, to move from below the required "cut score" to above that score (Booher-Jennings, 2006). As Booher-Jennings noted, this approach hurts students whose performance is either above or below a certain critical range: "If schools adopt the practices of educational triage in response to NCLB [No Child Left Behind], the consequence may be suboptimal outcomes for students 'below the bubble,' as well as for their peers who are mid-level and high-achieving students" (p. 760).

Consequences for Gifted Students

Gifted students in rural schools are likely to suffer—perhaps even more than other students—from the kinds of changes to curriculum and instruction that educators adopt out of fear of accountability sanctions. As Rakow (2008) notes, "A broad-based, thematically rich, and challenging curriculum is the heart of education for the gifted" (p. 45). In fact, the preponderance of evidence supports the use of advanced curriculum and inquiry methods to promote the higher level thinking of gifted students (Rogers, 2007; VanTassel-Baska & Brown, 2007). But, despite claims to the contrary, standards-based

curricula keyed to accountability tests are not sufficiently rigorous or deep to capture the interest and expand the horizons of gifted students (Rakow, 2008).

In fact, the types of traditional instruction that teachers use in service of test preparation are far less challenging than the active and investigatory approaches to instruction that serve gifted students so well (Rakow, 2008; Rogers, 2007). Even before the pressure of accountability testing, curriculum and instruction tended to be too didactic and slow-paced for many talented students, as numerous researchers have argued (e.g., Delisle, 1993; A. Howley, C. Howley, & Pendarvis, 1986; Sisk, 1988). In rural schools, where traditional methods of instruction tend to be the norm (A. Howley, 2003), teachers also have shown reluctance to differentiate instruction for gifted students (Lewis, 2000). Also, across locales, educators rarely seek to accelerate such students, despite parents' support for the practice and the robust body of empirical evidence demonstrating its effectiveness (e.g., Merlin, 1997; Sankar-DeLeeuw, 2002).

Added to these negative consequences for gifted students are the damaging effects of the educational triage that Booher-Jennings (2006) described. Clearly, when educators focus on just one group of students, such as those "on the bubble," other groups suffer. Interestingly, however, in states that are adopting value-added methods of assessment, educators are beginning to pay more attention to the performance of gifted students (Battelle for Kids, 2006). This change in focus occurs because value-added models measure performance in terms of the achievement gains of all students rather than in terms of overall attainment of a particular standard of performance. In the absence of appropriate instruction, gifted students are more likely to perform up to the minimum standard than they are to make gains. Value-added assessment thus removes the incentive, which is endemic in typical accountability models, for teachers to attend to the learning needs of only some of their students.

Implications

As the discussion above suggests, several conditions facing rural schools add to the challenges of finding effective ways to identify and

serve gifted students. Moreover, in some rural communities, parents are suspicious of efforts to locate and provide special services to these students. Sometimes their suspicion reflects the fear that their children will be encouraged to leave the community; sometimes their suspicion results from cultural values that focus on collective rather than individual accomplishments. Because gifted programs often single out individuals and encourage them to pursue advanced degrees and professional careers, these programs do seem to embed a mainstream bias.

The paths to a fulfilling life, however, are many; and extraordinary accomplishment comes in many varieties. Arguably, in fact, the most gifted individuals in any group point the way to new paths rather than simply demonstrating high achievement in the already well-defined domains of accomplishment. We are not suggesting, of course, that rural schools ought to overlook high achievement in the traditional academic domains. But we do believe, along with many authors whose work we have reviewed, that rural communities would benefit from a broader definition of talent and a broader perspective on desirable life choices for talented individuals.

Furthermore, we see pressing challenges in rural communities that would benefit from the critical thinking and sustained efforts of gifted youth and young adults. Rural communities need to find ways to attract new residents and retain current ones, stimulate economic development, combine cultures while preserving cultural diversity, and support educational institutions that shape and sustain democratic engagement. In face of the forces working against such developments, we see a tremendous need for leadership in rural America. Helping talented students understand the value of contributing as leaders to their own communities would be a worthy aim for gifted programs in rural places. Ironically, with the variety of educational strategies already available to them (e.g., distance learning, acceleration, early college options, and so on), educators may find that providing these students with a rich educational experience in preparation for community leadership is a less daunting challenge than changing their own views about which accomplishments represent success and which life choices represent meaningful opportunities for gifted students.

References

Adams, C. M., & Cross, T. L. (1999–2000). Distance learning opportunities for academically gifted students. *Journal of Secondary Gifted Education, 11,* 88–96.

Artz, G. (2003). Rural area brain drain: Is it a reality? *Choices: The Magazine of Food, Farm & Resource Issues, 18*(4), 11–16.

Baldwin, A. Y. (2004). Introduction to culturally diverse and underserved populations of gifted students. In A. Y. Baldwin (Ed.), *Culturally diverse and underserved populations of gifted students* (pp. xxiii–xxxi). Thousand Oaks, CA: Sage.

Barbour, M., & Mulcahy, D. (2006). An inquiry into retention and achievement differences in campus based and web based AP courses. *Rural Educator, 27*(3), 8–12.

Battelle for Kids. (2006). *Frequently asked questions about value-added analysis and the gifted community.* Retrieved July 6, 2008, from http://ohiorc.org/orc_documents/orc/value-added/documents/Gifted_FAQs.pdf

Booher-Jennings, J. (2006). Rationing education in an era of accountability. *Phi Delta Kappan, 87,* 756–761.

Briggs, C. J., Reis, S. M., & Sullivan, E. E. (2008). A national view of promising programs and practices for culturally, linguistically, and ethnically diverse gifted and talented students. *Gifted Child Quarterly, 52,* 131–145.

Chavez, S. (2005). Community, ethnicity, and class in a changing rural California town. *Rural Sociology, 70,* 314–335.

Colangelo, N., Assouline, S. G., & New, J. K. (1999). *Gifted education in rural schools: A national assessment.* Iowa City: University of Iowa. (ERIC Document Reproduction No. ED430766)

Collins, T. (1999). *Attracting and retaining teachers in rural areas*. Retrieved June 17, 2008, from http://www.ericdigests.org/2000-4/rural.htm

Corbett, M. (2007). *Learning to leave: The irony of schooling in a coastal community.* Black Point, Nova Scotia, Canada: Fernwood.

Cross, T., & Burney, V. (2005). High ability, rural, and poor: Lessons from Project Aspire and implications for school counselors. *Journal of Secondary Gifted Education, 16,* 148–156.

Dayton, J. (1998). Rural school funding inequities: An analysis of legal, political, and fiscal issues. *Journal of Research in Rural Education, 14,* 142–148.

Delisle, J. R. (1993). Halfway there: A retrospective of a career in progress. *Journal of Secondary Gifted Education, 5,* 14–17.

DiMaggio, P. J., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48,* 147–160.

Dorfman, D. (2000). *We built it and they came: A case study of Wahluke High School, Mattawa, Washington* (RIK65325). Portland, OR: Northwest Regional Educational Lab.

Economic Research Service. (2004). *Rural income, poverty, and welfare: Rural poverty*. Retrieved June 30, 2008, from http://www.ers.usda.gov/briefing/IncomePovertyWelfare/ruralpoverty

Evans, G. W., & English, K. (2002). The environment of poverty: Multiple stressor exposure, psychophysiological stress, and socioemotional adjustment. *Child Development, 73,* 1238–1248.

Evers, C. M., & Walberg, H. J. (Eds.). (2002). *School accountability.* Stanford, CA: Hoover Institution Press.

Gilbert-Macmillan, K. (2000). Computer-based distance learning for gifted students: The EPGY experience. *Understanding Our Gifted, 12*(3), 17–20.

Grey, M. A. (1997). Secondary labor in the meatpacking industry: Demographic change and student mobility in rural Iowa schools. *Journal of Research in Rural Education, 13,* 153–164.

Hammer, P. C., Hughes, G., McClure, C., Reeves, C., & Salgado, D. (2005). *Rural teacher recruitment and retention practices: A review of the research literature, national survey of rural superintendents, and case studies of programs in Virginia.* Charleston, WV: Edvantia. (ERIC Document Reproduction Service No. ED489143)

Harmon, H. L. (2003). Opportunities for ESAs serving rural school districts. *Perspectives: A Journal of Research and Opinion about Educational Service Agencies, 9,* 5–12.

Hébert, T. P., & Beardsley, T. M. (2001). Jermaine: A critical case study of a gifted Black child living in rural poverty. *Gifted Child Quarterly, 45,* 85–103.

Hoppe, R. A., MacDonald, J. M., & Banker, D. E. (2006). *America's diverse family farms: Structure and finances.* Washington, DC: U.S. Department of Agriculture, Economic Research Service.

Howley, A. (2002). The progress of gifted students in a rural district that emphasized acceleration strategies. *Roeper Review, 24,* 158–160. (Original work published 1989)

Howley, A. (2003). Tried and true: The rural school curriculum in the age of accountability. *Educational Forum, 68*(1), 14–23.

Howley, A., & Howley, C. (2006). Small schools and the pressure to consolidate. *Educational Policy Analysis Archives, 14*(10). Retrieved March 31, 2006, from http://epaa.asu.edu/epaa/v14n10

Howley, A., Howley, C., Burgess, L., & Pusateri, D. (2008). Social class, Amish culture, and an egalitarian ethos: Case study from a rural school serving Amish children. *Journal of Research in Rural Education, 23*(3). Retrieved May 23, 2008, from http://www.jrre.psu.edu

Howley, A., Howley, C., & Pendarvis, E. (1986). *Teaching gifted children: Principles and strategies*. Boston: Little, Brown.

Howley, A., Larson, W., Andrianaivo, S., Rhodes, M., & Howley, M. (2007). Standards-based reform of mathematics education in rural high schools. *Journal of Research in Rural Education, 22*(2). Retrieved May 18, 2007, from http://www.umaine.edu/jrre/22-2.pdf

Howley, A., Woodrum, A., & Pendarvis, E. (2005). *The rural school principalship: Promises and challenges.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Howley, C. B., & Howley, A. (2008, October). *Organizing a model of authentic, community-based education in the rural schools of Alabama.* Paper presented at the annual conference of the International Society for Educational Planning, Istanbul, Turkey.

Howley, C. B., Howley, A., & Howley, C. W. (2006, April). *Saving the children of the poor in rural schools.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Jimerson, L. (2003). *The competitive disadvantage: Teacher compensation in rural America* (Policy Brief). Washington, DC: Rural School and Community Trust.

Jimerson, L. (2005). Placism in NCLB—How rural children are left behind. *Equity and Excellence in Education, 38,* 211–219.

Johnson, T. E., & Brophy, M. (2006). Dual enrollment: Measuring factors for rural high school student participation. *Rural Educator, 28*(1), 25–32.

Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. R. (2007). *The postsecondary achievement of participants in dual enrollment: An analysis of student outcomes in two states.* New York: Columbia University, Community College Research Center. (ERIC Document Reproduction Service No. ED498661)

Klein, A. (2007). Acceleration under review. *Education Week, 26*(44), 22–24.

Lamb, J. H. (2007). The testing culture in one rural Mississippi school. *High School Journal, 90*(4), 32–43.

Lareau, A. (1989). *Home advantage: Social class and parental intervention in elementary education.* New York: Falmer Press.

Lawrence, B. K. (2001). *Effects of state policies on facilities planning and construction in rural districts*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED459970)

Lewis, J. D. (2000, March). *Rural gifted education: Enhancing service delivery.* Paper presented at the conference on Capitalizing Leadership in Rural Special Education: Making a Difference for Children and Families, Alexandria, VA. (ERIC Document Reproduction Service No. ED439874)

Lewis, J. D., & Hafer, C. (2007). The challenges of being gifted in a rural community. *The Duke Gifted Letter, 7*(2). Retrieved July 2, 2008, from http://www.dukegiftedletter.com/articles/vol7no2_feature.html

Lichter, D., & Johnson, K. (2007). The changing spatial concentration of America's rural poor population. *Rural Sociology, 72,* 331–358.

Lockwood, A. T. (1998). *Talent and diversity: The emerging world of limited English proficient students in gifted education*. Washington, DC: U.S. Department of Education.

Lyson, T. A. (1979). Going to college: An emerging rung on the agricultural ladder. *Rural Sociology, 44,* 773–790.

Maiden, J., & Stearns, R. (2007). Fiscal equity comparisons between current and capital education expenditures and between rural and nonrural schools in Oklahoma. *Journal of Education Finance, 33,* 147–169.

McBride, R. O., & Lewis, G. (1993). Sharing the resources: Electronic outreach programs. *Journal for the Education of the Gifted, 16,* 372–386.

McCray, C. R., Wright, J. V., & Beachum, F. D. (2004). An analysis of secondary school principals' perceptions of multicultural education. *Education, 125,* 111–120.

McGranahan, D. A., & Beale, C. A. (2002). Understanding rural population loss. *Rural America, 17*(4), 2–11.

Merlin, D. S. (1997). Adventures in radical acceleration: A mother's perspective. *Gifted Child Today, 20*(2), 38–41, 48–49.

Monk, D. (2007). Recruiting and retaining high-quality teachers in rural areas. *Future of Children, 17*(1), 155–174.

Murphy, E., & Coffin, G. (2003). Synchronous communication in a web-based senior high school course: Maximizing affordances and minimizing constraints of the tool. *American Journal of Distance Education, 17,* 235–246.

Murray, A., & Schaefer, V. (2006, October). *Social and academic interventions for rural schools*. Presentation at the National Rural Education Association in Kansas City, MO. Retrieved June 30, 2008, from http://www.nrcres.org/presentations/NREA_2006_Murray.ppt

National Association for Gifted Children. (2005). *State of the states 2004–2005.* Washington, DC: Author.

National Center for Education Statistics. (2007). *Percentage of gifted and talented students in public elementary schools, by sex, race/ethnicity, and state: 2002 and 2004.* Retrieved July 9, 2008, from http://nces.ed.gov/programs/digest/d07/tables/dt07_051.asp

Nichols, S. L., Glass, G. V., & Berliner, D. C. (2006). High-stakes testing and student achievement: Does accountability pressure increase student learning? *Education Policy Analysis Archives, 14*(1). Retrieved July 5, 2008, from http://epaa.asu.edu/epaa/v14n1/

No Child Left Behind Act of 2002, 20 U.S.C. §6319 (2008).

Olszewski-Kubilius, P., & Lee, S. (2004). Gifted adolescents' talent development through distance learning. *Journal for the Education of the Gifted, 28,* 7–35.

Paul, C. (2005). A proposal to address the shortage of highly qualified mathematics teachers. *Mathematics Teacher, 98,* 456–458.

PBS. (2005). *Why poverty persists in Appalachia. A Frontline interview with Cynthia Duncan for PBS.* Retrieved June 18, 2008, from http://www.pbs.org/wgbh/pages/frontline/countryboys/readings/duncan.html

Peshkin, A. (1982). *The imperfect union*. Chicago: University of Chicago Press.

Popham, W. J. (2005). AYP wriggle room running out. *Educational Leadership, 63*(1), 85–87.

Post, D., & Stambach, A. (1999). District consolidation and rural school closure: E pluribus unum? *Journal of Research in Rural Education, 15*(2). Retrieved February 26, 2009, from http://www.jrre.psu.edu/articles/v15,n2,p106-117,Post.pdf>http://www.jrre.psu.edu/articles/v15,n2,p106-117,Post.pdf

Rakow, S. R. (2008). Standards-based v. standards embedded curriculum: Not just semantics! *Gifted Child Today, 31*(1), 43–49.

Reeves, C. (2003). *Implementing the No Child Left Behind Act: Implications for rural schools and districts*. Naperville, IL: North Central Educational Lab. (ERIC Document Reproduction Service No. ED475037)

Rogers, K. B. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. *Gifted Child Quarterly, 51,* 382–396.

Rosenkoetter, S. E., Irwin, J. D., & Saceda, R. G. (2004). Addressing personnel needs for rural areas. *Teacher Education and Special Education, 27,* 276–291.

Rural Policy Research Institute. (2006).*Why rural matters II: The rural impact of the administration's FY07 budget proposal.* Retrieved June 31, 2008, from http://www.rupri.org/panelandnetworkviewer.php?id=13

Rural School and Community Trust. (2007, October). *Why rural matters 2007: The realities of rural education growth.* Retrieved July 31, 2008, from http://www.ruraledu.org/site/apps/s/link.asp?c=beJMIZOCIrH&b=3508815

Sankar-DeLeeuw, N. (2002). Gifted preschoolers: Parent and teacher views on identification, early admission, and programming. *Roeper Review, 24,* 172–177.

Sarason, S. (2002). *Educational reform: A self-scrutinizing memoir.* New York: Teachers College Press.

Sisk, D. A. (1988). The bored and disinterested gifted child: Going through school lockstep. *Journal for the Education of the Gifted, 11*(4), 5–18.

Smyth, T. S. (2008). Who is No Child Left Behind leaving behind? *Clearing House: A Journal of Educational Strategies, Issues and Ideas, 81,* 133–137.

Southwick, J. W. (2003). Distance education in the rural K–12 environment. *Computers in the Schools, 20*(3), 27–32.

Spicker, H., & Poling, S. N. (1993). *Identifying rural disadvantaged gifted students. Project SPRING: Special populations resource information network for the gifted*. Bloomington: Indiana University. (ERIC Document Reproduction Service No. ED365065)

Stricker, K. (2008, March). *Dakota diaspora: The out-migration of talented youth from one rural community*. Paper presented at the annual meeting of the American Educational Research Association, New York.

The Early College High School Initiative. (2008). Retrieved August 8, 2008, from http://www.earlycolleges.org

Thomas, J. Y., & Brady, K. P. (2005). Elementary and Secondary Education Act at 40: Equity, accountability, and the evolving federal role in public education. *Review of Research in Education, 29,* 51–68.

U.S. Census. (2006*). Fact finder*. Retrieved July 15, 2008, from http://factfinder.census.gov/

VanTassel-Baska, J., & Brown, E. F. (2007). Toward best practice: An analysis of the efficacy of curriculum models in gifted education. *Gifted Child Quarterly, 51,* 342–358.

Williams, D. T. (2003). *Closing the achievement gap: Rural schools.* Washington, DC: National Clearinghouse for Comprehensive School Reform. (ERIC Document Reproduction Service No. ED478574)

Williams, R., & Portin, B. (1997, March). *The changing role of the principal in Washington state.* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Woodrum, A. (2004). State-mandated testing and cultural resistance in Appalachian schools: Competing values and expectations. *Journal of Research in Rural Education, 19*(1). Retrieved September 16, 2007, from http://www.umaine.edu/jrre/19-1.htm

Zarate, M. E., & Pachon, H. P. (2006). *Gaining or losing ground? Equity in offering Advanced Placement courses in California high schools 1997–2003.* Los Angeles: University of Southern California, Tomas Rivera Policy Institute. (ERIC Document Reproduction Service No. ED502057)