IN RURAL SCHOOLS:

A National Assessment

The Connie Belin
& Jacqueline N. Blank
International Center
for Gifted Education
and Talent Development

THE UNIVERSITY OF IOWA

GIFTED EDUCATION IN RURAL SCHOOLS:

A National Assessment

The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development

Nicholas Colangelo, Ph.D., Director, Belin-Blank Center, and Myron & Jacqueline Blank Professor of Gifted Education

Susan G. Assouline, Ph.D., Associate Director, Belin-Blank Center

Jennifer K. New, M.A., Special Projects, Belin-Blank Center

THE UNIVERSITY OF IOWA

State Historical Society of Iowa

We find it interesting that many of the hallmarks of rural schooling, including mixed-age classes and a high degree of community-school interaction, are again in vogue. It is time to listen to the wisdom of rural schools.

Library of Congress

1. Introduction

American schools on the brink of the next millennium are obviously different places than their 19th century counterparts. The introduction of computer labs, the racial integration of schools, and the grouping of classrooms by age comprise some of the most radical changes our schools have undergone in the last century. But as every kindergarten teacher or professor of education knows, many facets of our schools have stayed the same and many so-called innovations have come full circle. The common school movement of the mid-1800s, itself a reaction to industrialization, created a model of schooling that continues to be very much in use to this day, with relatively large classes of students working in rows, waiting for a bell to sound, and moving from one distinct subject area to the next.

A first step in this process is to take the current pulse of gifted education in rural schools. That is the aim of this report. While gifted education has made great strides in the latter half of the 20th century, focusing attention on the barriers of race, gender, and poverty in identifying and providing opportunities to gifted students, little attention has been paid to geographical barriers. Today, we have a much better idea of what is happening to serve our most able inner-city students, and we have models of successful programming for these students. Nothing on a similar scale, however, is available for those educators and parents working to improve the schooling experience of gifted rural students. While we know that rural schools are dedicated to helping gifted students, there has been little attempt at providing ample assistance or developing a national network to serve these students.

One important lesson learned from inner-city gifted programs is that the culture of the participants must be taken into consideration in order to achieve success. A curriculum that has worked for suburban children cannot be dropped whole onto an urban school and be expected to flourish. Likewise, a major challenge for identifying and providing for gifted students in rural schools is to respect and maintain the strengths of the rural school and its surrounding community; a fluid integration is our goal. Consolidation efforts, started more than a century ago and ongoing today, have aimed largely at standardizing rural schools and "suburbanizing" out their unique qualities. We do not view such homogeneity as a desirable or appropriate goal. Rather, we find it interesting that many of the hallmarks of rural schooling, including mixed-age classes and a high degree of community-school interaction, are again in vogue. It is time to listen to the wisdom of rural schools.

In addition to this report, which strives to provide a readable, comprehensive documentation of gifted education in rural schools, we will also host the first Wallace Family National Conference on Gifted Education in Rural Schools. This conference, held on May 21-22, 1999, at The University of Iowa, will bring together experts from both rural education and gifted education to articulate the challenges and needs of future work in this field. Together, the conference and report will begin to delineate a map to follow as we work to improve both our understanding of and our services to the ablest students in America's smallest communities.

II. Rural Education

Rural schools have a complex history. For many small and isolated communities they have been a focal point of activity, serving not only as a place for the education of children, but also as a meeting space for political and social affairs. Townships have traditionally taken pride in and felt a strong ownership of their schools, viewing them as a defining and shared centerpiece. Like many facets of education, rural schools have been victim to cyclical schools of thought. At the end of the 20th century, for example, many of the mainstays of small schools are being heralded by the education establishment; smaller class size, mixed grades, and the community as classroom are all popular methods today. At other times, however, small and rural schools have come under attack, facing accusations of being backwards and insufficiently rigorous. In the name of modernization and industrialization, many rural schools have been closed in favor of larger, consolidated buildings. While critics have sometimes been right about the deficiencies of these schools, they have more often been shortsighted and unconcerned with the best form of education for rural students.

State Historical Society of Iowa

The common school movement ran parallel to and was much influenced by the increasing industrialization of America. Standardization, the hallmark of industry, became a central tenet of education reformers. Because students, especially in large, urban schools, began to be grouped more frequently by age and ability rather than being taught together in multi-age groupings, it became necessary to formalize a set curriculum. By the mid-1800s, for example, Chicago's schools had gone to a graded system (although year-long classes strictly separated by age as we know them today were not the norm until the early part of the 1900s). The city's superintendent created a forerunner to today's scope and sequences, *A Graded Course of Instruction*, anticipating the need to neither repeat nor omit material from year to year.

Eventually, standardization made its way to rural schools as well. *The McGuffey Reader*, a popular standby and one of the most widely owned books throughout the less populated parts of the country (more than 122 million copies were distributed between 1836 and the 1920s), fell into disrepute. As Andrew Gulliford notes in *America's Country Schools*, many reformers "criticized country schools as being out of step with the 20th century," even though they excelled at achieving some of the goals that reform heralded, such as the development of teamwork and job skills. Contemporary scholars and historians have criticized the standardization and consolidation movements, arguing that rural students lost connection to their communities as a result. Just as revisionists now view the "Americanization" of immigrants during approximately the same period in history as a forced stripping of their heritage, Gulliford and others believe that "the standardization of country schools destroyed local community autonomy and students' understanding of their own indigenous regional backgrounds."

17th and 18th centuries

According to Calvinist doctrine, children are believed to be inherently evil and born into sin. This thought prevails until the teachings of Rousseau (1712-1779) and other Enlightenment thinkers become popular. These latter thinkers view children as blank slates who are shaped by their environments.

1784

The Land Ordinance provides a legal framework for education in the Northwest Territory.

1800-30

So-called "monitorial schools," popular in urban areas, are the first American schools modeled after factories.

WORK PREPARATION AMONG THE DOUGLAS FIRS: CAREER CONNECTIONS

Located east of the Cascade mountain range in Washington State, the Tonasket School District, is preparing its 1,248 students for 21st century careers. The town of Tonasket itself has a population of just under 1,000, and more than half of the district's enrollment is eligible for participation in the federal free and reduced lunch program. It is truly an isolated district, just 20 miles from the Canadian border, with its closest "big" neighbor being the town of Omak (pop. 4,435) more than half an hour away. Still, Tonasket has creatively found ways to challenge its students and to present them with new experiences.

Foremost in this effort is the Career Connections program that exposes academically talented students to career opportunities. Kate Hagen, the program's coordinator, explains that students shadow a member of the school staff in order to prove their commitment and responsibility before being assigned to a job shadowing internship opportunity in the community. They also work with school staff to assess their abilities and interests, and to identify careers that could be a good match for their skills. For their job shadowing, students have worked in such areas as law enforcement, medicine, and journalism. One student who hopes to enter veterinarian school, says Hagen, has split her time between a vet's office and a radiology laboratory at the hospital. At the end of a Career Connections experience, students share their portfolios with a panel from the community and participate in mock job interviews.

Jessica Anderson, a Tonasket senior, has been working in the local hospital in preparation for studying health care in college. Describing the work she does as a nursing assistant in an email to the authors of this report, she wrote, "I have observed the removal of a cancerous growth, a fibroid biopsy, and an extremely bloody emergency room procedure involving a man with a ruptured artery." A member of the National Honors Society, Jessica says that the experience has expanded her "narrow visions of a nice little nurse in white to someone who is deep in the middle of all the action." She has clearly been challenged by the experience and widened the scope of her future goals as a result of this creative, community-centered program.

1836

McGuffey's Readers are first published. One of the first widely popular, mass marketed textbook series, they are especially significant to country schools with few other resources.

1837

Horace Mann (1796-1859) publishes the first of his 12 annual reports that he wrote as Secretary of the Massachusetts Board of Education. The reports covered almost every aspect of schooling and education, including Mann's blueprint for the Common School.

known breed self-respect, encourage hard work, and allow for special attention." And those factors count for a lot, especially in the battle to overcome the effects of poverty and other socioeconomic disadvantages. As one small school's motto proudly proclaims: "What we lack in size, we gain in pride."

Rural Roadmaps

Rural schools and students rarely attract significant national attention, especially when compared to inner-city education. Think for example of the number of television shows or movies with a rural setting and theme as compared to those with an urban focus. This same phenomenon plays out in research as well, where rural education topics are largely overshadowed by their city counterparts.

In 1994, however, the Office of Educational Research and Improvement issued a major report: *The Condition of Education in Rural Schools.* This 140-page report details not only who attends these schools, who teaches in them, and who administers them, but it also explores the connections between rural poverty, the "health" of rural communities, and the effect of national reform policy on these schools. Although the report does not focus on gifted education, it is an important tool for those of us trying to gain the fullest sense of what is happening in our nation's small and rural schools. Another report published two years earlier by the Children's Defense Fund, *Falling by the Wayside: Children in Rural America,* is also a significant work. Its focus includes issues other than education (although one chapter is devoted to K-12 education), and it details the poverty in which many rural children live.

Sources for this Section

Button, H. W., and Provenzo, E. F. Jr. (1983). *History of education & culture in America.* Englewood Cliffs, NJ: Prentice-Hall.

Cotton, K. (1996). *Affective and social benefits of small-scale schooling.* Charleston, WV: Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. EDO-RC-96-5)

Cotton, K. (1996). School size, school climate, and student performance. *Close-Up #20.* Portland, OR: Northwest Regional Educational Laboratory.

Gulliford, A. (1996). *America's country schools.* Niwot, CO: University Press of Colorado.

Gutek, G.L. (1986). *Education in the United States:* An historical perspective. Englewood Cliffs, NJ: Prentice-Hall.

Meier, D. (1995). *The power of their ideas: Lessons for America from a small school in Harlem.* Boston: Beacon Press.

National Center for Education Statistics (1997). *Digest of education statistics 1997.* Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

Sherman, A. (1992). *Falling by the wayside: Children in rural America.* Washington, DC: The Children's Defense Fund.

Stern, J. (Ed.). (1994). *The condition of education in rural schools.* Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

Strange, M. (1997, Fall) Large schools work against poor students. *rualmatters: The Rural Challenge News, 1.*

Strange, M. (1998, Spring). Does consolidation deny rural kids equal access? *rualmatters: The Rural Challenge News, 1.*

Sullivan, D. P. (1994). *William Holmes McGuffey: Schoolmaster to the nation.* London: Associated University Presses.

1852	1855	1855
Massachusetts passes the country's first compulsory school attendance law. By 1918, all states have passed a similar law.	*Brown University is one of the first universities in the country to offer education courses.*	*Henry Barnard, a Progressive, begins to publish the* American Journal of Education. *It is the most widely circulated, comprehensive, and influential educational journal of its day.*

III. Gifted Education

As with rural education, gifted education has experienced a see-saw effect of interest and disinterest on the part of the educational establishment. Whether gifted students are viewed as an invaluable commodity that should be well-funded and nourished, or as an elitist group draining money from other projects, there has often been a strong reaction to gifted education in the United States. Writing in 1976, one expert in the field, T. Ernest Newland, summarized nicely what a number of more recent researchers continue to believe: "Society's perceptions of the gifted have varied with the ways in which it perceives its needs."

more rigorous program helped to bolster the efforts of advocates of the gifted. Furthermore, larger high schools with a greater population of top students and well-trained teachers were more able to offer advanced coursework.

What really spurred gifted education in the 1950s, however, was an event that occurred on the other side of the globe: the successful launching in 1957 of the Soviet satellite *Sputnik*. The United States lagged far behind the Soviets in aeronautical ingenuity at the time, and the launch of Sputnik underlined the shortcomings in American education, especially in math and science. Almost immediately an effort was made to identify and better educate the country's brightest students. Acceleration and ability grouping became much more prevalent, and college-level courses were more available in high schools. The amount of research on giftedness and creativity also increased dramatically, with the professional literature on the subject as much as tripling.

1950s "duck and cover" drill.

Unfortunately, much of the progress from the programming initiated during the Sputnik period eroded in the 1960s. The civil rights movement and attempts to alleviate the shortcomings of services to inner-city and minority youth dominated educational funding during this period. Gifted programs, which traditionally had not served many children of color, were condemned as discriminatory and were allowed to languish, as opposed to being expanded to serve a greater diversity of students.

Another backlash against gifted education came in the guise of campus riots. Especially in the case of the University of California-Berkeley in the early 1960s, students protested being viewed as raw material to be mined and shaped by the educational system. As Abraham Tannenbaum wrote in 1972, "Large numbers of gifted students resent being groomed to service the critical requirements of a state they consider guilty of aggression abroad and oppression at home." This notion of students as human resources, which was promoted in the 1983 *Nation At Risk* report, is much alive today and seems embedded in the American view of the purpose of education.

Trailblazers

Over the years, various research has served to increase the awareness of and interest in gifted education. Looking back to the 19th century, some of the first research into intelligence was carried out by Sir Francis Galton, a younger cousin to Charles Darwin. Galton is most remembered as the founder of the now obsolete science of eugenics. However, his work focusing on the link between heredity and intelligence was a benefit to early research on giftedness and creativity. Especially noteworthy was his 1869 book *Hereditary Genius*.

1869	1870	1873
Sir Francis Galton publishes Hereditary Genius.	*St. Louis schools develop the first tracking system in the country.*	*The kindergarten movement, led largely by Elizabeth Peabody (whose sisters Mary and Sophia were married, respectively, to Horace Mann and Nathanial Hawthorne) is in its first stages. There are now 12 kindergartens in the United States. Twenty-five years later, there will be 4,363.*

A LEG UP IN OKLAHOMA: PROJECT LEAP

During the 1920s there was an oil drilling bonanza in northeastern Oklahoma. Towns seemingly sprouted and doubled overnight. The town of Shidler boasted a population of more than 10,000 and, along with the surrounding area, was home to 23 schools. Now, some 70 years later, only the Shidler School is left. Its 238 students (K-12) live in a 437 square-mile radius of the school, meaning that there are .5 students per every mile. Relatively nearby (by Oklahoma standards) is the consolidated Woodland School District boasting 572 students. Unlike Shidler, Woodland Hill students do not yet have access to the Internet. Some bizarre quirks of rural living have kept technological progress just outside their reach. Five different phone companies operate in the district, which has two area codes. A call between the middle school and the high school is long distance.

These two districts are joined by some of the difficulties that isolated, rural communities without a booming economy often experience. Along with two other districts, they are learning to overcome such odds while also working to serve and appreciate their communities' heritage. Project LEAP (Leadership, Excellence, Achievement, and Performance) is a three-year program started through a Jacob K. Javits Gifted & Talented Students Educational Grant in 1996. The four districts have worked together through the Osage County Interlocal Cooperative in order to establish a model program for gifted and talented students, especially those who are economically disadvantaged and Native American. A report written by LEAP's coordinators notes that the average Native American population for the four districts is 54%. In addition, 62% of all students qualify for free and reduced lunch benefits.

The project's leadership curriculum is based on six areas of study: research skills, with an emphasis on technology and learning styles; writing skills; motivation/self-esteem, including student-initiated community service projects, such as car seat safety checks and home smoke detector installation; pre-college orientation; career education; and Native American heritage, emphasizing avenues for positive cultural identity. The educators working with the students are all of Native American descent and are familiar with the communities in which they live and work. More than 100 students have been identified and served by Project LEAP, which also has a strong parent-education component.

The most powerful model is the Talent Search Model which has effectively identified hundreds of thousands of students each year and has allowed for programming for these students. Founded by Julian Stanley in the early 1970s, this model has been the basis of university-based programs focusing on the development of specific academic talents. The identification of students via the Talent Search Model is based on the use of standardized tests. Typically, participants are given above-level tests (a method established

1889	1889	1891	1894
Jane Addams (1860-1935) founds Hull House, a settlement house in Chicago providing welfare services for the poor and recent immigrants.	*Columbia Teachers College is established.*	*Cambridge, Massachusetts implements the Double Track Plan in which classes could cover six years of work in four years.*	*John Dewey (1858-1952) opens the Lab School at the University of Chicago. The school's motto is "learning by doing." He is responsible for a shift to student-centered education.*

Delisle. Piechowski, for example, is a leading scholar of the emotional development of gifted individuals. He has done much to bring Dabrowski's Theory of Positive Disintegration, a unique theory that focuses on the emotional development of gifted children and adults, into the educational arena. The recent publication of Daniel Goleman's book, *Emotional Intelligence,* has also given increased exposure to the importance of non-cognitive factors in academic settings.

Setting a Course

In the latter half of the 20th century, a series of national reports impacted views about and support for gifted education. In 1972, in response to a Congressional mandate, the U.S. Commissioner of Education, S.P. Marland, issued *Education of the Gifted and Talented.* Commonly referred to as the Marland Report, its most lasting contribution to gifted education has been to establish a national definition of giftedness that is still used today. (A modified and extended definition offered by Joseph Renzulli in 1978, however, has eclipsed it.) The effects of the Marland Report were nearly immediate and are ongoing today. Not only was funding and programming increased soon after publication of the Marland Report, but a federal office for gifted education was established. Many states have turned to the Marland definition for guidance in establishing standards and benchmarks for gifted education.

In 1983, the watershed *A Nation At Risk* report served as a wake-up call to American education. Although its focus was not specifically on the gifted, its effect was similar to that of Sputnik a generation earlier. The overall message was that American education was woefully inadequate and was quickly being overshadowed by superior educational systems in other countries. "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today," stated the report, "we might well have viewed it as an act of war." It went on to call for more rigorous standards and improved teacher training, among other remedies.

Despite the widespread attention drawn by the report, the Reagan administration, which had been responsible for its publication, was simultaneously engaged in withdrawing funding for many educational programs, including those for the gifted. In 1981, for example, the newly established federal office for gifted education was dismantled.

Appearing a decade later was *National Excellence: A Case for Developing America's Talent.* Produced by the Office of Educational Research and Improvement in 1993, the report called attention not only to the lack of challenge faced by many American students, but especially to the lack of educational opportunities available to "economically

The Marland Definition: Public Law 91-230 (or, the six kinds of giftedness as described by the Marland Report)

Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities, are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. general intellectual ability
2. specific academic aptitude
3. creative or productive thinking
4. leadership ability
5. visual and performing arts ability
6. psychomotor ability*

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5% of the school population.

**The category of psychomotor ability was later deleted.*

1904	1905	1908
Charles Spearman proposes a general capacity of mind, which he called "General Intelligence," or the "G" Factor.	*Simon and Binet publish their first intelligence test in Paris, France.*	*The National Commission on Rural Life is formed to study, among other issues, "the rural school problem."*

Two current trends also contribute to a more "balanced" view of gifted students. One is the number of voices clamoring for increased rigor in the K–12 curriculum, a curriculum that has been deemed underchallenging by a wide range of experts. The recognition of these deficiencies makes it intuitively obvious that students of high ability must be "losing out" if the curriculum is not even sufficiently rigorous for the general population. The other trend has involved a number of international comparisons (e.g., TIMSS) resulting in sobering reports that America's students do not match well with students in other countries. This has led to the perception that we may have short-changed some of our top students.

As we enter the new millennium, the public is beginning to realize that there is nothing to be gained by ignoring the needs of gifted students. There is greater acceptance that many of these needs can be met in school settings without jeopardizing the education of other students. In addition, it is being recognized that efforts on behalf of gifted students can actually improve the curriculum as a whole, which contradicts the notion that by fostering the needs of gifted students we abandon general students to a "lower-track" curriculum. With regard to gifted students in rural schools, there is more awareness and a greater commitment to not let the "luck" of geography dictate the opportunities to identify and enhance talent.

Historically, gifted education has been sabotaged by myths and stereotypes, e.g., gifted kids are generally social isolates. Many of these myths have been dispelled; however, two new general myths are emerging:

1. **Raising the general level of the curriculum will address the needs of the gifted, and, therefore, there will not be a need for special programs.** Whereas it is true that improving the curriculum for all students will improve the plight of the gifted student, general improvements will not by any means address the specific individual cognitive and affective learning needs of gifted students. These needs have now been well documented.
2. **Technology will "equalize" opportunities for the gifted, especially those in rural schools.** Technology will play an ever-increasingly large role in the lives of all people. It will clearly enhance quantitative and qualitative opportunities for gifted students, and gifted students in rural schools may especially benefit from its impact. However, technology cannot serve as a substitute for peer interaction and collective work. Rather, it can play only a limited role in providing for the affective needs of gifted students in rural areas.

It will be important to be vigilant in our thinking and not be convinced that general improvements are equivalent to comprehensive programs.

Sources for this section

Colangelo, N. & Davis, G. (1997). *Handbook of gifted education.* (2nd ed.). Needham Heights, MA: Allyn & Bacon.

Cornell, D., Callahan, C., Bassin, L., & Ramsay, S. (1991). Affective development in accelerated students. In J. Borland (Series Ed.), & T. Southern, & E. Jones (Vol. Eds.), *Education and psychology of the gifted series: The academic acceleration of gifted children.* (pp. 74-101). New York: Teachers College Press.

Education Week, *In Context: Gifted and Talented Education.* Retrieved January 18, 1999 from the World Wide Web : http://www.edweek.org/context/topics/gat.htm

Hollingworth, H. L. (1990). *Leta Stetter Hollingworth: A biography.* Boston: Anker Publishing Co.

Howley, C., Howley, A., Pendarvis, E. (1995). *Out of our minds: Anti-intellectualism and talent development in American schooling.* New York: Teachers College Press.

Newland, T. E. (1976). *The gifted in socio-educational perspective.* Englewood Cliffs, NJ: Prentice-Hall.

Piirto, J. (1994). *Talented children and adults: Their development and education.* New York: Macmillan College Publishing Co.

Tannenbaum, A. (1975). A backward and forward glance at the gifted. In W. Barbe & J. Renzulli (eds.) *Psychology and education of the gifted* (pp. 21-31). New York: Irvington Publishers, Inc.

U.S. Department of Education, (1983). *A nation at risk: The imperative for educational reform.* Washington, DC: Author.

U.S. Department of Education, (1993). *National excellence: A case for developing America's talent.* Washington, DC: Author.

U.S. Department of Health, Education, and Welfare, (1972). *Education of the gifted and talented.* Washington, DC: Author.

1920s	1920	1922	1925
Progressive Education Movement takes hold and developmental concerns become a focus.	*U.S. population = 106.5 million Children in public schools = 21.6 million.*	*Leta Hollingworth establishes a school for gifted students in New York City that will eventually be known as the Speyer School project.*	*Lewis Terman publishes the first of four volumes of* Genetic Studies of Genius, *the first longitudinal study of giftedness.*

IV. Gifted Education in Rural Areas

Unlike the comprehensive reports and histories that have been written about both gifted and rural education, respectively, there are no such roadmaps for us to follow on the topic of how our most academically able and talented students are being served by America's small and rural schools. Relatively little has been written on the combined topics. In 1976, T. Ernest Newland wrote that the condition of the gifted in rural areas "seems to have been little studied." He proceeded to allot one chapter to the obstacles in providing challenge to gifted students in rural areas and outlined some alternatives. Almost two decades later, Jane Piirto also briefly addressed the needs of rural and gifted youth, very much echoing the observations of Newland, her earlier colleague; the only significant difference between the two is the increased attention by the latter author given to technology as a potential delivery system.

make it difficult to initiate new offerings for the special needs of gifted students.") would probably be met with little interest, or even derision, by rural educators.

Likewise, an article published in the Winter 1989-90 issue of *Rural Educator*, "Planning a Gifted Program," does not take into consideration any possible differences between urban and rural gifted students. Rather, it provides an introduction to gifted education practices to a readership first and foremost interested in rural education. And, similar to the previous article, it offers no new knowledge to anyone with a basic exposure to gifted issues and methodologies.

The result of this phenomenon is that very little information of any depth is published regarding rural and gifted education. The book *Recommended Practices in Gifted Education* makes the following recommendations for further research into gifted education in rural areas: program evaluations highlighting those components that are more effective for rural programs; investigation of assumptions about rural gifted youth; study of the availability of and access to resources by these students; evaluation of student outcome variables, "especially with regard to an important consideration: Does gifted education serve rural communities or create a 'brain drain'?"

We concur with all of these recommendations. The Belin-Blank Center intends to become a clearinghouse for such studies and statistics regarding the status of rural gifted youth. As our review of the literature proves, there has been a need for such a service for some time.

MAKING DISCOVERIES IN NORTH CAROLINA: CLARKTON SCHOOL OF DISCOVERY

"I've been in education for 19 years," says Jim Coleman, "and my time with the Clarkton School of Discovery has been by far the most exciting." Coleman is the principal of a unique magnet school that serves rural Bladen County in North Carolina. The middle school is open to all students in the county but has a special program within the school called Project Challenge that is especially for gifted and talented students.

Like all students at Clarkton School of Discovery, the gifted and talented students spend their mornings working on core courses. (They work entirely with teachers certified in gifted education.) Afternoons are reserved for elective classes in which Project Challenge students participate side by side with other Clarkton classmates. Every quarter, students sign up for new electives, some of which are deemed "core-related" and others of which are "enrichment/exploratory." Class subjects range from regional ghost stories to environmental science to mime.

The school, which opened its doors in 1994, is built on the theory that practices commonly applied to gifted and talented students can benefit all children. In 1997-98, the school had about 350 students, nearly 20% of whom were part of Project Challenge. The school has been so popular that some students travel by school bus for nearly two hours in order to attend.

SOURCES FOR THIS SECTION:

Howley, C. & Howley, A. (1995). The power of babble: Technology and rural education. *Phi Delta Kappan, 77*(2), 126-131.

Newland, T. E. (1976). *The gifted in socio-educational perspective*. Englewood Cliffs, NJ: Prentice-Hall.

Piirto, J. (1994). *Talented children and adults: Their development and education*. New York: Macmillan College Publishing Co.

Shore, B., Cornell, D.G., & Ward, V. S. (1991). *Recommended practices in gifted education : A critical analysis* (Education and Psychology of the Gifted Series). New York: Teachers College Press.

Singleton, H. W. (1989-1990). Planning a gifted program: The decision grid. *Rural Educator, 11* (2), 23-25.

Spicker, H., Southern, T., Davis, B. (1987). The rural gifted child. *Gifted Child Quarterly, 31*(4), 155-157.

Tannenbaum, A. (1975). A backward and forward glance at the gifted. In W. Barbe & J. Renzulli (eds.) *Psychology and education of the gifted* (pp. 21-31). New York: Irvington Publishers, Inc.

V. Definitions of Rural

Establishing a definition of *rural* sounds simple enough. We have found it, however, to be the most complicated task of this report. Most reports on rural subjects contain an explanation of how the authors have grappled with this definition. Even the federal government and its myriad of offices—to which we turned for precedence—does not use a single definition. Rather, respective federal offices use multiple meanings and often eschew the term altogether in favor of the less precise *nonmetropolitan*. Instead of defining what rural is, this all-too-convenient latter term lumps together everything it is *not*. Thus, our frustration over the elusive nature of this word puts us in good company.

RURAL: A CONCEPT IN TRANSITION

It may be the Southwest ear or some remnant of a speech impairment I carry, but I find that not many people hear and understand me when I say "rural." "World?" they ask, "Whirl?" No, I explain, rural—as in "out in the country."

I have learned that many people from out in the country have a shortage of rural pride and rural self-awareness; they simply see themselves as "not urban," "not suburban." Little communities are "out there"—say, 200 miles west of San Antonio. Defining yourself by what you are not creates a vacuum in a community. But beyond that, and for many reasons, I sense a growing feeling that "rural" may be too pure a word for many people's experience of the part of the country where they find themselves. Some rural areas are changing quickly. I ask myself every day, is this rural?

In Oklahoma, for example, I visited a district perched on a busy two-lane highway. Everybody seemed to be going somewhere else in a hurry. In honor of my visit the superintendent went down to the little grocery at the side of the road and asked if anyone knew how the settlement got its name. Someone thought it was named after a woman, but no one was quite sure. Everyone I met at the community meeting had moved there from somewhere else, most often to retire.

In Texas I visited a district where almost all the parents commute at least 45 minutes to jobs in a plastics factory in a small city on the interstate. People thought long and hard before they could name a family that still earns a living from agriculture. Just 10 years ago, they told me, most families farmed at least enough to contribute substantially to the family's income. Only a few of the teachers live in this district.

Rural means something slightly different when the children attending the schools are not from the surrounding country.

Shifts in the economic base have eaten away at the identity and cohesiveness of many rural areas. In one central Texas county all five school districts were staying open, if not thriving, due to a boom in the foster care business. Unable to support themselves, former ranch families were now selling home care in a safer white middle-class environment for hundreds of foster children sent from Dallas and Houston. Foster children made up more than 25% of one district's enrollment.

For such places "rural" is less reality than it is heritage, in the sense that Navajo speak of their language as a heritage language—ignored, forgotten, and not handed down through generations. Rural means something slightly different when the children attending the schools are not from the surrounding country, or when their parents are recent ex-urbanites who work and shop in cities. Or when none of the teachers or administrators grew up there or live there.

Where do you start when no one seems to know much about the place—its history, ecology, culture? I have come to believe that you start from where you are with people who have the capacity and desire to learn. You have to reclaim the knowledge of the place.

This is excerpted from an article by Belle Zars that appeared in the Rural Challenge newsletter, ruralmatters, *Winter 1998. It is reprinted with permission of both the author and the Rural Challenge. Zars wrote this while working as a Rural Challenge steward in several southern states.*

BREATHE EASY IN IOWA: THE ENVIRONMENTAL HEALTH SCIENCES INSTITUTE FOR RURAL YOUTH

Come see the Inhalation Toxicology Facility! Learn about Pulmonary Biology! Discover Immunogenetics! These are just some of the topics that students in the Environmental Health Sciences Institute for Rural Youth will encounter during their one-week of study on The University of Iowa campus. This program, a partnership between the Belin-Blank Center and the University's Environmental Health Sciences Research Center is designed for gifted youth from Iowa communities of 2,500 or less. The residential program exposes students to issues, research, and problem-solving approaches dealing with the environment, agricultural occupations, and human health in rural areas of the state.

One of the program's originators, Dr. James Merchant, says, "The fact that these high school students are from rural communities is particularly important because they have a special stake in agricultural and rural environmental issues." The students, all of whom are between their freshmen and sophomore years in high school, develop presentations about some aspect of environmental health to present to both a community group and a school group when they return home. Project coordinators say that the growth they've witnessed in students during the week of on-campus study and during their hometown presentations has been impressive.

One complication in using a district-based definition is that districts are not determined nationally but rather state-by-state, with many different systems. *The Condition of Education in Rural Schools* notes that, "While nearly all rural districts have fewer than 2,500 students, the pattern is divided geographically. In New England and the Mountain states, nearly 70% of the rural districts have fewer than 300 students. In the Mid-Atlantic and Midwest, about 20% of the districts are that small; most have enrollments between 300 and 2,500. In the southern regions, where many states organize school districts along county boundaries, districts with under 300 students are rare. There, districts with 300 to 2,500 students are most common, and about one of three rural districts have enrollments exceeding 2,500 students."

This difference is well illustrated by comparing Florida and Oklahoma. Although Florida has nearly twice as many students as Oklahoma, it has just 67 school districts, with only four of them falling under the 2,000 mark. By contrast, Oklahoma has a total of 548 districts, and 495 of those have fewer than 2,000 students.

Despite the fact that not every state neatly fits the less-than-2000 rule as it corresponds to rurality, we believe that we've captured the essence of rural for the purpose of this report. Specifically, we want to describe the educational topography, emphasizing how giftedness is served in rural areas.

SOURCES FOR THIS SECTION:

Hobbs, D. (1994). The rural context for education: Adjusting the images. In G. Karim & N. Weate (Eds.), *Toward the 21st century: Rural education anthology. Rural school development outreach project. Vol. 4* (pp. 5-22). (ERIC Document Reproduction Service No. ED 401 023).

National Center for Education Statistics (1997). *Digest of education statistics 1997*. Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

Stern, J. (Ed.) (1994). *The condition of education in rural schools*. Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

1950	1951	1954	1954
U.S. population = 152.3 million Children in public schools = 25.1 million	*The American Association for Gifted Children publishes* The Gifted Child *by Paul Witty.*	*Brown v. Board of Education begins the process of desegregation in American schools.*	*The National Association for Gifted children is established.*

VI. Qualities of Rural Schools

Many analysts have commented on how the cultural gap between rural and metropolitan areas has diminished as a result of such factors as commuting, cable television, and regional shopping malls. Still, schools in rural areas possess some unique qualities. For example, they are relatively isolated, situated geographically far apart from resources such as cultural centers, universities, large libraries, and even other schools. Teachers in these areas don't have ready access to institutions that would allow them to augment their training, nor are materials near at hand to research or expand curriculum. Students have less exposure to a range of professions than their suburban peers. Being part of small classes also limits the chance that a student with special needs will have a classmate with similar aptitude or interests.

LIFELONG FRIENDS IN WILLA CATHER COUNTRY: THE SUMMER HONORS PROGRAM

"Certainly my longest lasting friendships came about from the Summer Honors Program," recalls Marc Loy in an email to the authors of this report. "Here was a collection of 60 students interested in learning. That was a tremendous boost to my self-esteem." Loy, who now owns a computer training company, says that he was often bored in regular school and tried to help other students as often as possible in order to give himself something to do. The Summer Honors Program (SHP), however, allowed him to see a world outside his hometown of Alma, Nebraska (pop. 1,300).

Started in 1978 by the Educational Service Unit #11 in Holdrege, Nebraska, SHP was triggered by research indicating that rural students were at a disadvantage when entering college as compared to their suburban and urban peers. Since all of the districts served by the Service Unit are small and rural, with the largest district having 1,100 students today, the program made sense. SHP brings master teachers from across the country to Holdrege, says the program's director Tim Burke, so that students are exposed to as many expert teachers and geographic backgrounds as possible. Students are selected for the program after being nominated by their high school teachers. Once in Holdrege, they cover about a semester's worth of work in two weeks.

While providing gifted students from rural communities with opportunities for advanced study is one of SHP's primary goals, another one is equally as important: To bring together students with similar interests and concerns. The peer group established among SHP participants and graduates is significant. It is bolstered by the fact that many students enroll in the program for several years during their high school career and try to maintain contact during the academic year (a task made easier by email). Mike Lewis, who grew up in Beaver City, a town of 700, and who now works for the Nebraska Legislature, says, "Most of my best friends today are people I met at SHP. There was an atmosphere in which your social status was determined by how interested you were in learning and how creative you were." While Lewis greatly values his small school/small town experience, he does so with a caveat: "Of course I was lucky to have SHP. Most rural kids in this country don't have such an opportunity."

Although poverty's hold on rural America has gradually loosened during the last century, rural children continue to bear the brunt of existing economic difficulties. And every farm crisis or timber cutback is especially hard on this segment of the population. In 1993, for example, more than one-third of the rural Americans who were in poverty were children under the age of 18.

This poverty in rural areas is due in part to the instability of employment in these areas, a situation that is not significantly better than that found in many inner-cities. Although overall unemployment is lower in rural areas than in inner-cities, jobs are often short-term, seasonal, and part-time in nature. Such work not only undermines stability, it also limits a family's benefits, including health insurance for children, access to

1959	1960s	1960	1962
James Conant's pro-consolidation study The American High School Today *is published.*	*Little focus is given to gifted education during periods of civil rights expansion and the Viet Nam war.*	*U.S. population = 180.7 million Children in public schools = 36.1 million*	*Project Talent is established at Columbia University under the direction of Harry Passow.*

service. Indeed, urban schools are now copying some of the most successful elements of their rural counterparts. Ironically, many of these positive features have been diminished by consolidation, a process that has forced rural schools to grow bigger and to lose their ties to local communities.

From our survey sent to rural educators, we received many responses demonstrating the benefits of small schools. Teachers, superintendents, parents, students, and association presidents all stressed the following benefits of small schools:

- a higher level of child-adult contact,
- more individualized learning,
- learning through community involvement,
- participation in multiple school events.

These benefits are the norm, not the exception. As Kathleen Cotton reports, "...in small schools, everyone is needed to populate teams, offices, and clubs; thus, even shy and less able students are encouraged to participate and made to feel they belong. As schools grow larger, opportunities for participation also grow—but not proportionately: a twenty-fold increase in population produces only a five-fold increase in participation opportunities.

Students in smaller schools also have an increased sense of belonging. Among the teachers and administrators we interviewed, many of them commented on the ease they had in discussing a particular student's progress with other faculty, sometimes creating individualized plans for students with special needs and interests. Such spontaneous and flexible planning isn't as possible in a larger school where the bureaucracy is usually more rigid and the larger enrollment simply means less time per student.

Many of the gifted students we talked to commented on the benefits of both a small school and a small town. Will Nedved, from Garner, Iowa, said that his senior year independent study project on opera was possible because all of the teachers in the building knew and trusted him. "I set up a plan for my project and presented it to my teachers," said Will. "Because they knew I could work well on my own, they didn't hesitate to let me go for it. It was the most exciting, challenging thing I did in high school." Nedved eventually won a $5,000 Scholastic Art and Writing Award and was invited to Washington, D.C. to present his opera. Likewise, Tom Skuzinski, a National Merit Finalist from Reed City, Michigan, said that he really appreciated the support and security offered by his small community: "I sometimes received congratulatory notes from people in town who I didn't even know," he recalled fondly. While these students may have profited from a wider range of peers and greater academic offerings in a larger school, they clearly enjoyed the advantages of their small schools.

SOURCES FOR THIS SECTION:

Cotton, K. (1996). *Affective and Social Benefits of Small-Scale Schooling.* Charleston, WV: Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. EDO-RC-96-5).

Hobbs, D. (1994). The rural context for education: Adjusting the images. In G. Karim & N. Weate (Eds.), *Toward the 21st century: A rural education anthology. Rural school development outreach project: Vol. 4* (pp. 5-22). (ERIC Document Reproduction Service No. ED 401 073).

Ronan Herzog, M.J. & Pittman, R.B. (1995). Home, family, and community: Ingredients in the rural education equation. *Phi Delta Kappan, 77*(2), 113-118.

Nachtigal, P. (1994). Rural education in a period of transition: Are the public schools up to the task? In G. Karim & N. Weate (Eds.), *Toward the 21st century: A rural education anthology. Rural school development outreach project: Vol. 4* (pp. 23-25)." (ERIC Document Reproduction Service No. ED 401 073).

Stern, J. (Ed.) (1994). *The Condition of Education in Rural Schools.* Washington, DC: U.S. Department of Education Office of Educational Research and Improvement.

1971	1972	1975
The Study of Mathematically Precocious Youth (SMPY) is established by Julian Stanley at Johns Hopkins University; this represents the start of the Talent Search Model of Identification and Programming.	*A report by Commissioner of Education, S.P. Marland, on the state of gifted education is published.*	*The Federal Office of Gifted and Talented is established.*

VII. Survey of State Departments of Education: The Top-Twenty Rural States

In order to learn more about the state of gifted education in rural schools, we surveyed two groups. First, we surveyed those people responsible for gifted education in state departments of education. Second, we surveyed rural educators. (Copies of both surveys can be found in Appendix A.) We will discuss the findings of the second survey in Section VIII.

We focused our survey retrieval efforts on these 20 states, calling all of those who had not responded. Eventually, we received data from every state except Montana. Some of the responses we received, such as those in regards to items "C" and "E," did not always correspond with the numbers available from NCES. Thus, whenever federally procured statistics were available, we used those numbers in lieu of those from our survey. Unfortunately, many questions, especially those pertaining to AP classes and the allocation of funding to gifted students in various sized districts, could not be answered with the available data.

We were, however, able to obtain data from 19 of the 20 states with regard to the number of school districts and students in each of the three district size categories

COLLEGE CREDIT IN MICHIGAN: MATH/SCIENCE/TECHNOLOGY CENTER

Tom Skuzinki is seen as a renaissance man in his hometown of Reed City, Michigan (pop. 2,800). The National Merit Scholar finalist won the Michigan Spelling Bee and placed 22nd in the national Scripps-Howard Spelling Bee; he presented his research, "The Effects of Sound and Light Stimuli on Memory," at the National Student Research Symposium in Washington, D.C.; and he was a four-time recipient of a high school Division I rating for piano solo, while also playing in his school band and orchestra. Tom did all of this while also earning 20 hours of college credit from nearby Ferris State University.

As a student in the Math/Science/Technology Center in Big Rapids, Michigan, Tom was able to take classes in subjects such as calculus, chemistry, and pre-pharmacy. The Math/Science/Technology Center was started in 1992 to provide accelerated programming for gifted and talented students such as Tom. Students from eight middle schools are recruited from the small towns and rural areas near the Mecota-Osceola Intermediate School District, where the Center is located. A class of 26 9th graders start the program every fall. The students spend half the day in their regular school, concentrating on non-math and science coursework; the other half is spent at the Center where, for the first two years, they do a compacted high school schedule. During their final two years, they enroll in classes at Ferris State University.

Paul Bigford, the Center's director, told us in an interview that it took some convincing to let nearby schools release their top students for the program. "A lot of schools won't hesitate to send away their lower-end kids, but they're less willing to send national honors students outside the school. By pooling our resources, however, we've been able to get enough students to offer them accelerated classes and the kinds of opportunities that students in larger districts have." The students are challenged by the level of research that is demanded of them in the program. They also seem to flourish by being with peers of like-ability. "There's a synergistic effect of getting all these kids together," says Bigford.

Program graduates are being accepted at top colleges and universities. This includes Tom who is now attending the honors college at The University of Oklahoma on a $50,000 scholarship. He is working towards a B.A. in music, and plans to follow that with graduate study in either law or engineering. A good combination for a renaissance man!

students, while South Carolina has 77% of its students in districts of this size. The numbers flip, of course, in the third category (districts greater than 5,000 students) with Alaska counting in at 71% and South Carolina at just 4%. As with other discrepancies between states, this one has a sensible explanation: Alaska has a few major population centers in which they've organized large districts, whereas South Carolina is without many sizable metropolitan areas and has organized smaller districts. This example harks back to our description earlier in this report of school districts in Florida and Oklahoma and reminds us of the results of an educational system that is state directed as opposed to federally mandated.

Table 4 show us that rural areas are less diverse than their metropolitan counterparts. According to the 1993-94 SASS, just 18.8% of small towns/rural areas public school students are minorities. But to stereotype rural areas as being predominantly white misses some very important patterns. Indeed, the rural areas of New England, the Midwest, and mountain states are predominantly white. However, the South, Southwest, and Alaska look very different. Mississippi and South Carolina, for example, have two of the highest national averages of minority public school students, students who are almost entirely African Americans. But in Alaska, which also tops the national average, nearly one quarter of the students are Alaskan Native. And in New Mexico (which only misses our 20-state list by a single place) nearly half of the students are Hispanic and another 10th are American Indian; at 65.1%, the state has the second highest percentage of minority public school students in small towns/rural areas. As in other community types, people of color tend to be poorer than their white neighbors: "The prevalence in rural areas of low incomes and poverty, as well as less educational attainment, is even greater among [minority] population groups" (Stern, *The Condition of Education in Rural Schools*).

Table 4
Percentage of public school students who are minority

	Percentage distribution by state 1993-94	Percentage distribution by race or ethnicity Fall 1995				
		White	Black	Hispanic	Asian or Pacific Islander	American Indian/ Alaskan Native
United States	**18.8**	**64.8**	**16.8**	**13.5**	**3.7**	**1.1**
Alabama	29.1	62.1	36.0	0.5	0.6	0.7
Alaska	**38.3**	**63.7**	**4.6**	**2.7**	**4.4**	**24.5**
Arizona	50.2	56.9	4.3	30.0	1.7	7.2
Arkansas	**22.3**	**73.9**	**23.6**	**1.5**	**0.7**	**0.4**
California	39.7	40.4	8.8	38.7	11.2	0.9
Colorado	16.3	72.5	5.5	18.4	2.5	1.1
Connecticut	4.3	72.0	13.5	11.8	2.4	0.3
Delaware	31.0	64.7	29.4	4.0	1.7	0.2
District of Columbia	—	4.0	87.6	7.0	1.4	—
Florida	27.1	57.5	25.3	15.3	1.8	0.2
Georgia	29.4	58.2	37.8	2.2	1.6	0.1
Hawaii	67.4	22.9	2.6	4.9	69.3	0.4
Idaho	**11.4**	**88.4**	**0.6**	**8.4**	**1.2**	**1.3**
Illinois	5.1	63.6	21.1	12.2	3.0	0.1
Indiana	1.8	85.6	11.1	2.3	0.8	0.2
Iowa	**2.7**	**92.7**	**3.3**	**2.1**	**1.5**	**0.4**
Kansas	**10.3**	**82.6**	**8.5**	**6.0**	**1.8**	**1.1**
Kentucky	**4.2**	**89.1**	**9.8**	**0.4**	**0.6**	**0.1**
Louisiana	40.3	51.0	46.0	1.1	1.3	0.5
Maine	**2.1**	**97.3**	**0.8**	**0.4**	**0.9**	**0.6**
Maryland	13.5	57.5	35.0	3.3	3.8	0.3
Massachusetts	12.2	78.5	8.2	9.3	3.8	0.2
Michigan	4.4	76.4	18.4	2.7	1.5	1.0
Minnesota	**5.9**	**87.4**	**4.8**	**2.0**	**3.9**	**1.9**
Mississippi	**49.3**	**47.7**	**51.0**	**0.3**	**0.6**	**0.4**
Missouri	4.3	81.7	16.1	1.0	1.0	0.2
Montana	**15.4**	**87.5**	**0.5**	**1.4**	**0.8**	**9.8**
Nebraska	**4.5**	**87.2**	**5.9**	**4.4**	**1.3**	**1.4**
Nevada	16.7	66.5	9.8	17.2	4.5	1.9
New Hampshire	**1.7**	**96.7**	**0.9**	**1.2**	**1.1**	**0.2**
New Jersey	14.0	62.5	18.5	13.5	5.4	0.2
New Mexico	65.1	39.5	2.4	46.8	1.0	10.4
New York	7.8	56.9	20.2	17.4	5.0	0.4
North Carolina	32.4	64.6	30.7	1.9	1.3	1.5
North Dakota	**9.8**	**90.8**	**0.8**	**1.1**	**0.8**	**6.6**
Ohio	4.6	82.2	15.3	1.4	1.0	0.1
Oklahoma	**26.0**	**69.4**	**10.5**	**3.9**	**1.3**	**15.0**
Oregon	14.1	85.3	2.6	6.8	3.4	2.0
Pennsylvania	4.2	80.6	14.0	3.5	1.8	0.1
Rhode Island	—	78.9	7.0	10.3	3.3	0.5
South Carolina	**45.7**	**56.3**	**42.1**	**0.7**	**0.8**	**0.2**
South Dakota	**13.8**	**83.7**	**0.9**	**0.7**	**0.7**	**13.9**
Tennessee	11.3	75.3	23.1	0.7	0.8	0.1
Texas	39.3	46.4	14.3	36.7	2.3	0.3
Utah	7.1	90.4	0.7	5.3	2.2	1.4
Vermont	**2.9**	**97.3**	**0.7**	**0.4**	**1.0**	**0.6**
Virginia	21.8	66.6	26.5	3.2	3.5	0.2
Washington	16.9	78.3	4.7	7.8	6.5	2.6
West Virginia	**3.6**	**95.2**	**4.0**	**0.3**	**0.4**	**0.1**
Wisconsin	**3.6**	**83.2**	**9.4**	**3.3**	**2.8**	**1.3**
Wyoming	**9.6**	**89.3**	**1.0**	**6.1**	**0.8**	**2.7**

States in bold are the top-20 rural states.

Sources: Schools and Staffing Survey 1993-94, p.22; Digest of Education Statistics 1997, p. 60

1981	1983	1983	1984
The Federal Office of Gifted and Talented is dissolved.	Nation At Risk, *a report deriding the state of American education, is published.*	*Howard Gardner's* Frames of Mind *is published introducing the theory of multiple intelligences.*	*About 430 one-room school houses are still in operation.*

VIII. Survey of Rural Educators

One of the best indications we received of the quality of life in rural schools, as it pertains to giftedness, came from a six-question survey of rural educators. In March 1998, we mailed 55 surveys to members of rural associations, rural-related advisory boards of national committees, and rural experts at the 10 regional educational laboratories. Additional copies were made and dispersed by some of the original recipients. By July, we had received 28 returned and completed surveys. [See Appendix A for more information.] Here is a summary of the responses.

Question 3:
What are the two to three most important needs of teachers of gifted and talented students in small/rural districts?

Reflecting some of the previous responses, three themes surfaced in this set of responses: training, time, and administrative support. The overwhelming percentage of rural educators surveyed said that teachers need training to help them develop curricula for gifted and talented students, as well as to be able to better understand these students' needs. Some respondents, echoing the belief of the Belin-Blank Center, furthered this point by saying that the first step should be to better challenge *all* students. ("A more challenging curriculum in the regular classroom is needed.") After raising the bar for everyone, then educators can focus on the needs of specific groups of students, including the gifted.

In order to prepare materials for gifted and talented students, about one-third of respondents believed that more time was necessary for planning and for meetings between faculty members. As one director of a rural research center said, "Time is of the essence! Time to prepare and time with the students." The overwhelming message was that teachers are already painfully short of time to plan, so being expected to create special lessons for a small segment of a class is an additional burden that needed to be considered.

"Time is of the essence! Time to prepare and time with the students."

Respondents also said that teachers need the support of building administrators to first understand the needs of gifted and talented students and to serve as leaders to their teachers in this area, and secondly to support gifted and talented programming by allowing for training, preparation time, and financial support of materials and other student services (e.g., field trips, programming outside the building). Although financial support was a common theme, one regional coordinator said that this took a backseat to the necessity of well-trained teachers and dedicated administrators: "Because if [these things] are in place then lack of resources and funds becomes merely an inconvenience."

Question 4:
What benefits do small/rural schools provide gifted and talented students?

We received very enthusiastic responses to this question. The most common comments stressed the advantages of a small enrollment. A small enrollment translates to greater opportunity for students and adults—be they teachers, custodians, coaches, or librarians—to interact. A smaller enrollment also means less bureaucracy and improved communication. This is somewhat akin to the difference of, say, a locally owned computer store with 10 employees and a giant corporation like Microsoft. Teachers see each other more often in a smaller building and have more time for discussion because they are responsible for fewer total students, as opposed to larger buildings where teachers may interact only by grade level or subject matter. Teachers in rural districts are more apt to compare notes about specific students, sometimes even developing individualized learning plans.

Small enrollments also allow students to participate more easily and actively in school clubs and events. Students have a higher degree of interaction with children in

1988

The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development is established at The University of Iowa (Nicholas Colangelo, Director).

1988

The Javits Gifted and Talented Gifted Education Act *(PC 100-297) is passed, providing for special emphasis on economically disadvantaged students, limited-English-proficient students, and students with disabilities who are gifted and talented.*

IX. The Road Ahead

Much more needs to be learned about the best ways of identifying and serving gifted youth in rural schools. Currently, there is an inadequate conglomeration of mismatched research and data that does little to help those on the educational frontlines who are trying to provide effective programming for these students. The Belin-Blank Center proposes several steps to take as we work toward improving education for the gifted in rural schools.

Current and proposed programs should be evaluated.

We need to learn from both our successes and our failures. Assessing gifted programs in rural schools nationwide would help us with the previous two goals by 1) providing best practice examples for other educators, and 2) serving as data collection sites. Furthermore, schools and districts that are planning gifted programs could have their designs reviewed in advance.

These are among the most important next steps the Belin-Blank Center hopes to achieve as we turn our full attention to the challenge of improving gifted education in rural schools. The bottom line is that both gifted education and rural education have something to gain from the other. Countless students who were schooled in small towns across this country recall their educational experience fondly, as much for the experiences offered by their communities as by the actual school work. Others, of course, have yearned to be more challenged, to have access to greater resources, and to be a part of a larger peer group; all of these are shortcomings that gifted education seeks to overcome. Merging these two—the strong and clear benefits of rural education and the assets of gifted education—could create a new roadmap, a plan by which gifted students in rural areas could be educated both today and into the future.

Library of Congress

1998	1999	2000
Belin-Blank Center at The University of Iowa initiates a National Program for Gifted Education in Rural Schools.	*The Belin-Blank Center publishes* Gifted Education in Rural Schools: A National Assessment *and hosts the First Biennial Wallace Family National Conference on Gifted Education in Rural Schools.*	*The National Program for Gifted Education in Rural Schools expands, focussing on teacher training, students programs, and the use of technology.*

SURVEY I

Directions:

- Please answer all of the questions (front and back) as they pertain to K-12 public schools in your state.
- In the following questions, "GT" refers to gifted and talented.
- Please indicate "not available" when you are unable to answer a question. If you have any information, however, that seems related to a given question, do not hesitate to include it. If for any of these responses it is easier to include a photocopy or some other document, please do so.
- Please provide numbers for each of the three size categories for every question unless we indicate that a breakdown is unnecessary.

QUESTIONS	K-12 PUBLIC SCHOOLS Districts with less than 2,000 students	Districts with between 2,001 - 5,000 students	Districts with more than 5,000 students
A. How many districts are there by size category?			
B. How many students are there by size category?			
C. How many students are eligible for free and reduced lunch?			
D. How many teachers are there by size category?			
E. How many students are there from each of these racial/ ethnic groups? African-American/Black			
American Indian, Alaska Native			
Caucasian-American/White			
Mexican-American/Chicano			
Asian-American, Pacific Islander			
Puerto Rican, Cuban, other Hispanic Origin			
Other			
F. How many GT students are identified?			
G. How many approved GT programs are there?			
H. What percentage of your state education budget is allocated to GT?			
I. How much money is allocated per GT student?			
J. How many districts offer honors or AP calculus?			
K. How many districts offer two or more honors courses of AP science?			
L. How many districts offer two or more honors courses of AP in Language Arts and/or Social Studies?			
M. How many districts offer two or more foreign languages?			
N. Is there a GT teaching endorsement in your state? ☐ Yes ☐ No If yes, how many teachers have this endorsement?			
O. How many GT-endorsed teachers are there by size category?			
P. Mark the GT definition that best describes the one used by your state: ☐ Federal definition (Marland, 1972) ☐ Renzulli Triad Learner ☐ Multiple Talents/Gardner ☐ Structure of Intellect (SOI) ☐ Javits (1993) ☐ Talent Search/Above-level Testing ☐ Other: (please specify) _____			
Q. Does your state provide guidelines for evaluation of GT programs? ☐ Yes ☐ No (Please indicate the breakdown here or enclose the numbers. R. What size categories does your state use to segment school districts? Please indicate the breakdown here or enclose			

Survey I. The following table indicates the responses received for Survey I. *Yes* indicates a complete response. *No* indicates no response. And *part* indicates partial response. The top-20 rural states are in bold.

State	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Alabama	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	part
Alaska	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**yes**	**yes**	**yes**
Arizona	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Arkansas	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**no**	**yes**	**no**	**yes**	**yes**	**yes**
California	no	no	no	no	part	part	part	yes	part	no	no	no	no	yes	no	yes	yes	yes
Colorado	yes	yes	yes	part	part	yes	yes	yes	yes	no	no	no	no	yes	no	yes	yes	part
Connecticut	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Delaware	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Florida	yes	yes	yes	no	yes	yes	yes	no	no	no	no	no	no	yes	no	yes	yes	no
Georgia	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Hawaii	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Idaho	**part**	**no**	**no**	**no**	**no**	**part**	**no**	**no**	**part**	**no**	**no**	**no**	**no**	**yes**	**no**	**yes**	**yes**	**part**
Illinois	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Indiana	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Iowa	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**no**	**no**	**no**	**no**	**yes**	**yes**	**yes**	**yes**	**no**
Kansas	**yes**	**yes**	**no**	**yes**	**yes**	**yes**	**no**	**no**	**yes**	**no**	**no**	**no**	**no**	**yes**	**yes**	**yes**	**yes**	**no**
Kentucky	**yes**	**yes**	**yes**	**no**	**no**	**no**	**yes**	**no**	**no**	**no**	**no**	**no**	**no**	**yes**	**no**	**yes**	**yes**	**part**
Louisiana	yes	yes	no	no	yes	yes	yes	no	no	no	no	no	no	yes	no	yes	yes	no
Maine	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Maryland	yes	yes	yes	part	no	yes	part	part	part	yes	yes	yes	yes	yes	no	yes	yes	part
Massachusetts	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Michigan	yes	yes	yes	no	yes	part	part	yes	part	no	no	no	no	yes	no	yes	yes	yes
Minnesota	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Mississippi	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Missouri	yes	yes	yes	yes	part	yes	yes	yes	part	part	part	part	part	yes	no	yes	yes	no
Montana	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Nebraska	**yes**	**yes**	**no**	**no**	**part**	**no**	**part**	**yes**	**no**	**no**	**no**	**no**	**no**	**yes**	**no**	**yes**	**yes**	**no**
Nevada	yes	yes	yes	yes	yes	yes	no	no	no	no	no	no	no	yes				
New Hampshire	**yes**	**yes**	**no**	**yes**	**yes**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
New Jersey	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes	no
New Mexico	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
New York	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
North Carolina	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
North Dakota	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Ohio	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Oklahoma	**yes**	**yes**	**no**	**no**	**part**	**part**	**yes**	**yes**	**yes**	**no**	**no**	**no**	**no**	**yes**	**no**	**yes**	**yes**	**no**
Oregon	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Pennsylvania	part	no	no	no	no	part	part	no	no	no	no	no	no	yes	no	yes	yes	no
Rhode Island	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
South Carolina	**yes**	**yes**	**yes**	**yes**	**part**	**yes**	**no**	**no**	**yes**	**yes**	**yes**	**yes**	**yes**	**yes**	**no**	**yes**	**yes**	**no**
South Dakota	**yes**	**part**	**part**	**part**	**part**	**part**	**no**	**no**	**no**	**part**	**part**	**part**	**part**	**yes**	**no**	**yes**	**yes**	**yes**
Tennessee	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Texas	yes	yes	part	part	part	part	yes	part	yes	no	no	no	no	yes	no	yes	yes	yes
Utah	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
Vermont	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Virginia	no	no	no	no	no	part	part	no	part	part	part	part	no	yes	no	yes	yes	no
Washington	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no
West Virginia	**yes**	**yes**	**no**	**no**	**no**	**yes**	**part**	**yes**	**part**	**part**	**part**	**part**	**part**	**yes**	**no**	**yes**	**yes**	**no**
Wisconsin	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**
Wyoming	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**	**no**

Table 2

Direct general expenditures per capita of state and local governments by level and state: 1992-93

	Elementary and secondary education	
	Amount per capita	**As a percent of all functions**
United States	**$931.76**	**23.4**
Alabama	$604.32	18.4
Alaska	**$1,817.84**	**18.1**
Arizona	$879.81	24.4
Arkansas	**$707.23**	**23.8**
California	$850.02	19.7
Colorado	$922.90	22.8
Connecticut	$1,152.41	23.9
Delaware	$972.53	22.2
District of Columbia	$1,071.63	13.9
Florida	$815.84	22.1
Georgia	$859.03	24.5
Hawaii	$711.69	13.1
Idaho	$761.93	24.2
Illinois	$875.70	23.8
Indiana	$861.68	24.7
Iowa	**$906.75**	**23.7**
Kansas	**$945.03**	**26.5**
Kentucky	**$684.97**	**20.9**
Louisiana	$785.06	20.4
Maine	**$957.67**	**24.8**
Maryland	$905.65	24.4
Massachusetts	$826.99	19.3
Michigan	$1081.91	27.2
Minnesota	**$1,121.22**	**23.3**
Mississippi	**$681.73**	**22.7**
Missouri	$784.10	26.9
Montana	**$965.42**	**26.1**
Nebraska	**$999.19**	**27.7**
Nevada	$857.19	21.3
New Hampshire	**$902.77**	**23.9**
New Jersey	$1,271.79	27.5
New Mexico	$867.96	21.4
New York	$1,289.81	21.8
North Carolina	$774.92	23.3
North Dakota	**$862.27**	**21.4**
Ohio	$887.37	25.0
Oklahoma	**$842.09**	**26.5**
Oregon	$1,021.77	24.9
Pennsylvania	$1,033.21	27.1
Rhode Island	$928.98	20.7
South Carolina	**$796.08**	**23.2**
South Dakota	**$857.34**	**25.2**
Tennessee	$622.02	20.3
Texas	$951.31	27.8
Utah	$874.29	25.7
Vermont	**$955.41**	**24.4**
Virginia	$880.16	26.0
Washington	$1,132.45	23.8
West Virginia	**$933.24**	**26.8**
Wisconsin	**$1,078.02**	**25.4**
Wyoming	**$1,264.73**	**24.7**

Top-20 rural states are in bold.

U.S. Dept. of Education, NCES, Source: Digest of Education Statistics 1997, p. 39

Table 3

Poverty status of 5-17-year-olds, 1995: Percent in poverty

United States	**19.0**
Alabama	22.6
Alaska	**6.7**
Arizona	24.2
Arkansas	**21.7**
California	23.4
Colorado	10.7
Connecticut	17.8
Delaware	16.6
District of Columbia	31.5
Florida	22.1
Georgia	15.6
Hawaii	14.2
Idaho	**16.7**
Illinois	20.3
Indiana	14.5
Iowa	**15.5**
Kansas	**10.7**
Kentucky	**19.3**
Louisiana	24.4
Maine	**14.3**
Maryland	13.3
Massachusetts	16.8
Michigan	14.8
Minnesota	**10.4**
Mississippi	**36.4**
Missouri	9.8
Montana	**19.0**
Nebraska	**11.9**
Nevada	11.1
New Hampshire	**4.3**
New Jersey	9.5
New Mexico	34.9
New York	23.6
North Carolina	20.2
North Dakota	**13.2**
Ohio	17.1
Oklahoma	**24.2**
Oregon	16.2
Pennsylvania	16.5
Rhode Island	16.4
South Carolina	**31.7**
South Dakota	**17.3**
Tennessee	19.6
Texas	23.1
Utah	8.4
Vermont	**13.0**
Virginia	14.5
Washington	16.6
West Virginia	**25.8**
Wisconsin	**11.2**
Wyoming	**10.6**

Top-20 rural states are in bold.

U.S. Dept. of Education, NCES, Source: Digest of Education Statistics 1997, p. 27

Appendix C: Resources

Gifted and Talented Organizations and Periodicals

The Association for the Gifted (TAG)
Council for Exceptional Children
1920 Association Drive
Reston, VA 22091
(800) 336-3278

The Connie Belin & Jacqueline N. Blank International Center for Gifted Education & Talent Development
Dr. Nicholas Colangelo, director
Dr. Susan Assouline, associate director
210 Lindquist Center
The University of Iowa
Iowa City, IA 52242-1529
(319) 336-6463
http://www.uiowa.edu/~belinctr

Gifted Child Quarterly
1155 15th Street, N.W.
Suite 1002
Washington, DC 20005
(202) 785-9268

Jacob K. Javits Gifted & Talented Students Education Program
Liz Barnes and Patricia O'Connell Ross, team leaders
U.S. Department of Education
Office of Educational Research and Improvement
555 New Jersey Avenue, N.W.
Washington, DC 20208-5645
(202) 219-2116
http://www.ed.gov/prog_info/Javits/

Journal of Creative Behavior
Creative Educational Foundation, Inc.
1050 Union Road
Buffalo, NY 14224

Journal for the Education of the Gifted
University of North Carolina Press
P.O. Box 2288
Chapel Hill, NC 27515-2288

The Journal of Secondary Gifted Education
Prufrock Press
P.O. Box 8813
Waco, TX 76714-8813

National Association for Gifted Children
Peter Rosenstein, executive director
1155 15th Street, N.W.
Suite 1002
Washington, DC 20005
(202) 785-4268
http://www.nagc.org/

National Research Center on the Gifted and Talented
Dr. Joseph S. Renzulli, director
The University of Connecticut
362 Fairfield Road, U-7
Storrs, CT 06269-2007
(860) 486-4826
http://www.gifted.uconn.edu

Roeper Review
Roeper City and County Schools
P.O. Box 329
Bloomfield Hills, MI 48303-0329
(313) 642-1500

Rural Education Organizations and Periodicals

American Council on Rural Special Education
Kansas State University
2323 Anderson Ave., Ste. 226
Manhattan, KS 66502
http://www.ksu.edu/acres/

ERIC Clearinghouse on Rural Education and Small Schools
Timothy Collins, director
Appalachia Educational Laboratory
P.O. Box 1348
Charleston, WV 25325-1348
(800) 624-9120
http://www.ael.org/eric/

Journal of Research in Rural Education
Theodore Coladarci, editor
College of Education
University of Maine
5766 Shibles Hall
Orono, ME 04469-5766

National Rural Education Association
Joseph T. Newlin, executive director
246 Education Building
Colorado State University
Fort Collins, CO 80523-1588
(970) 491-7022
http://www.colostate.edu/orgs/NREA/

The Rural Challenge
Paul Nachtigal and Toni Haas, co-directors
P.O. Box 1569
Granby, CO 80446
(970) 887-1064
http://www.ruralchallenge.org/

Directors of Gifted and Talented Education in State Departments of Education

DiAnn Brown, Program Manager
Gifted and Talented Education
Alaska Office of Special Services
Alaska Department of Education
801 West 10th Street, Suite 200
Juneau, AK 99801-1894
(907) 465-2972

Linda Grill, Education Specialist
Special Education Service
Alabama Department of Education
Gordon Persons Bldg., Box 302101
Montgomery, AL 36130-2101
(334) 242-8114

Ann Biggers, Administrator
Office of Gifted and Talented
Arkansas Department of Education
Education Bldg., Room 203-B
#4 Capitol Mall
Little Rock, AR 72201
(501) 682-4224

Dr. Nancy Stahl, Gifted Education Manager
Arizona Department of Education
1535 West Jefferson Street, Bin 24
Phoenix, AZ 85007
(602) 542-3850

Ruth Wharton
Gifted Education Consultant
California Department of Education
P.O. Box 944272
Sacramento, CA 94244-2720

Frank Rainey, State Consultant
Gifted and Talented Education
Colorado Department of Education
201 East Colfax, Rm. 402
Denver, CO 80203-1799
(303) 866-6849

Consultant of Gifted and Talented Program
Connecticut Department of Education
25 Industrial Park Road
Middletown, CT 06457
(203) 638-4247

Michele Munson, Consultant
Office of Gifted Education
New Hampshire Department of Education
101 Pleasant Street
Concord, NH 03301
(603) 271-3769

Roberta Carol, Coordinator
Gifted and Talented Education
New Jersey Department of Education
100 Riverview, CN 500
Trenton, NJ 08625
(609) 984-6308

Diego Gallegos, Director
Special Education Department
New Mexico Department of Education
Education Bldg., Room 123
300 Don Gaspar
Santa Fe, NM 87501-2786
(505) 827-6508

Doris B. Betts
Gifted and Talented Education
Nevada Department of Education
700 E. Fifth St., Capitol Complex
Carson City, NV 89701
(702) 687-9141

Mary Daley, Executive Director
New York State Summer Institutes
NY State Education Department
Room 981 EBA
Albany, NY 12234
(518) 474-8773

Dan Tussey, Gifted Education Consultant
Division of Special Education
Ohio Department of Education
933 High Street
Worthington, OH 43085-4087
(614) 466-2650

Janet Schultz, Gifted Education Consultant
Division of Special Education
Ohio Department of Education
933 High Street
Worthington, OH 43085-4087
(614) 466-2650

Anita Boone, Coordinator
Kristy Ehlers, Director
Gifted and Talented Section
Oklahoma Department of Education
2500 N. Lincoln Boulevard
Oklahoma City, OK 73105-4599
(918) 333-2079

Nancy Anderson, Education Specialist
Gifted and Talented Programs
Oregon Department of Education
255 Capitol St., N.E.
Salem, OR 97310-0290
(503) 378-3598

T. Noretta Bingaman, Director
Gifted Technical Assistance Program
Pennsylvania Department of Education
Bureau of Special Education, 7th Floor
333 Market Street
Harrisburg, PA 17126-0333
(717) 783-6913 / 772-0635

Ivonne Quinonez
Gifted and Talented Education
Puerto Rico Department of Education
P.O. Box 190759
San Juan, PR 00919-0759
(809) 274-1059

Ina S. Woolman, Coordinator
Gifted and Talented Programs
R.I. Dept of Elem & Secondary Education
255 Westminister St., Room 400
Providence, RI 02903-3400
(401) 222-4600, ext. 2318

Cindy Saylor, Gifted and Talented Education Contact
South Carolina Department of Education
803-A Rutledge Building
1429 Senate Street
Columbia, SC 29201
(803) 734-8394

Shirlie Hoag
Gifted Education
South Dakota Department of Education
700 Governors Drive
Pierre, SD 57501-2291
(605) 773-6400

Ann Sanders, Consultant
Gifted and Talented Programs & Services
Tennessee Department of Education
Division of Special Education
710 James Robertson Pkwy, 8th Floor
Nashville, TN 37243-0380
(615) 741-2851 / 741-7811

Evelyn L. Hiatt, Director
Gifted and Talented Education
Texas Education Agency
1701 N. Congress Avenue
Austin, TX 78701
(512) 463-9455

Connie Love, Specialist
Gifted and Talented Education
Utah Office of Education
250 East 500 South
Salt Lake City, UT 84111
(801) 538-7743

Joy L. Baytops, Specialist
Programs for the Gifted
Virginia Department of Education
Office of Elementary & Middle School
P.O. Box 2120
Richmond, VA 23218-2120
(804) 371-7419

Mary Harley, Coordinator
Gifted and Talented Education
St. Thomas / St. John School District
#44-46 Kongens Gade
St. Thomas, VI 00802 Virgin Islands
(809) 775-2250

Gifted and Talented Education
Vermont Department of Education
120 State Street
Montpelier, VT 05620
(802) 828-3111

Gayle Pauley, Program Supervisor
Gifted and Talented Education
Washington Office of Public Instruction
Old Capitol Bldg., Box 47200
Olympia, WA 98504-7200
(360) 753-2858

Gifted and Talented Education
Wisconsin Department of
Public Instruction
125 S. Webster Street
P.O. Box 7841
Madison, WI 53707
(608) 266-3560

Dr. Virginia Simmons, Coordinator of
Gifted Programs
Office of Special Education
West Virginia Department of Education
Capitol Complex
Building 6, Room 362
Charleston, WV 25305
(304) 558-0260

Ken Hulslander, Consultant
Gifted and Talented Education
Wyoming Department of Education
Hathaway Building, 2nd Floor
2300 Capitol Avenue
Cheyenne, WY 82002
(307) 777-3544

Dillman, R. J., Hadley, H., & Jones, H. (1991, March). *The "Think College" program and rural at-risk youth.* Panel presentation at the Joint Symposium of the American Council on Rural Special Education and National Rural and Small School Consortium, Knoxville, TN.

Elder, W. & Hobbs, D. (1990, Summer). From reform to restructuring: New opportunities for rural schools. *The Rural Sociologist, 10*(3), 10–13.

Education Week, *In Context: Gifted and Talented Education* [On-line]. Available: http://www.edweek.org/context/topics/gat.htm

EdWest. (1995). The nature of rural education. *Pulling together: R&D resources for rural schools.* (ERIC Document Reproduction Service No. ED 381 339)

Ellzey, J. T. & Karnes, F. A. (1991, May/June). Gifted education and rural youths: What parents and educators should know. *Gifted Child Today,* 56–57.

Feldhusen, J., Van Tassel-Baska, J., & Seeley, K. (1989). *Excellence In Educating the Gifted.* Denver, CO: Love Publishing Co.

Finley, M. (1994). *Cultivating resilience: An overview for rural educators and parents.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED 372 904).

Fishkin, A. S. & Kampsnider, J. J. (1996, March). WISC-III subtest scatter patterns for rural superior and high-ability children. *Rural Goals 2000: Building Programs That Work.* Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 783)

Forbes, R. H. et al. (1993, February). *North Carolina rural initiative study of secondary schools: Funding effects on depth of the curriculum.* Paper presented at the Annual Meeting of the Eastern Educational Research Association. (ERIC Document Reproduction Service No. ED 360 133)

Fowler, W. J. (1992, April). *What do we know about school size? What should we know?* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA. (ERIC Document Reproduction Service No. ED 347 675)

Fuller, W. E. (1982). *The old country school: The story of rural education in the middle west.* Chicago & London: The University of Chicago Press.

Gardner, D.P. et al. (1983). *A nation at risk: The imperative for educational reform. An open letter to the American people. A report to the nation and the Secretary of Education.* Washington, DC: National Commission on Excellence in Education. (ERIC Document Reproduction Service No. ED 226 006)

George, K. R. (1987). *A guide to understanding gifted American Indian students.* Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED 284 715)

George, W. C., Sanford, J. C., & Stanley, J. C. (Eds.). (1979). *Educating the gifted: Acceleration and enrichment.* Baltimore: The Johns Hopkins University Press.

Gold, V. et al. (1997, March). Transition to the community, work, and independent living: The rural community as a classroom. *Promoting Progress in Times of Change: Rural Communities Leading the Way.* Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 406 085)

Gold, V., Williams, E. U., & Russell, S. (1991). Intervention assistance teams in rural Ohio schools. In *Reaching our potential: Rural Education in the 90's.* Conference proceedings from the Rural Education Symposium, Nashville, TN. (ERIC Document Reproduction Service No. ED 342 562)

Gray Davidson, O. (1996). *Broken heartland: The rise of America's rural ghetto.* Iowa City, IA: The University of Iowa Press.

Gulliford, A. (1996). *America's country schools* (3rd ed.). Niwot, CO: University Press of Colorado.

Gutek, G.L. (1986). *Education in the United States: An historical perspective.* Englewood Cliffs, NJ: Prentice-Hall.

Haas, T. (1994). Better together: Rural schools and rural communities. In *Toward the 21st century: A rural education anthology* (Vol. 1). (ERIC Document Reproduction Service No. ED 401 075)

Haas, T. & Nachtigal, P. (1998). *Place value: An educator's guide to good literature on rural lifeways, environments, and purposes of education.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Halpern, S. (1998, March 13). Public schools redefined. *The New York Times,* p. A19.

Hamrin, J. M. (1981). *Problems in implementing gifted/talented programs in 11 rural Maine schools.* Biddeford, ME: University of New England. (ERIC Document Reproduction Service No. ED 213 538)

Harmon, H. (1997). Rural schools in a global economy. *The Link* [On-line serial], *16*(3). Available: http://www.ael.org/link/163/lnk16311.htm

Harmon, H. (1998, April). *Building school-to-work systems in rural America.* Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. ED 418 832).

Harriman, N. & Renew, F. C., Jr. (1996, March). Preparing classroom teachers to teach diverse learners in rural schools. *Rural Goals 2000: Building Programs That Work.* Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 746)

Helge, D. (1990, May). *Executive summary: A national study regarding at-risk students.* Bellingham, WA: Western Washington University, National Rural Development Institute. (ERIC Document Reproduction Service No. ED 324 178)

Kidwell, B. (1989, September). Country schools at the crossroads. *Progressive Farmer, 104*, 26-29.

Koki, S. (1994, December). Blanche Pope's accelerated schools project: What a difference a year makes. *Educational Innovations in the Pacific, 1*(3), 1-4. (ERIC Document Reproduction Service No. ED 376 598)

Lewis, G. (1989, May). Telelearning: Making maximum use of the medium. *Roeper Review, 11*(4), 195-208.

Luhman, A. & Fundis, R. (1989, April). *Building academically strong gifted programs in rural schools*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. EDO-RC-89-3)

Marland, S. P., Jr. (1971). *Education of the gifted and talented*. Washington, DC: Office of Education, Department of Health, Education, and Welfare. (ERIC Document Reproduction Service No. ED 056 243 & ED 056 244)

Maynard, S. & Howley, A. (1997, June). *Parent and community involvement in rural schools*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools. (ERIC Document Reproduction Service No. EDO-RC-97-3)

McCluskey, K. W., Massey, K. J., & Baker, P. A. (1997). Early entrance to kindergarten: An alternative to consider. *Gifted and Talented International, 12* (1), 27-30.

Meier, D. (1995). *The Power of Their Ideas: Lessons for America from a Small School in Harlem*. Boston: Beacon Press.

Midkiff, R., Towery, R., & Roark, S. (1991). Alternative methods of math and social studies instruction for at-risk students based on learning style needs. In *Reaching our potential: Rural education in the 90's*. Conference proceedings from the Rural Education Symposium, Nashville, TN. (ERIC Document Reproduction Service No. ED 342 529)

Miller, B. A. (1991, Winter). A review of the qualitative research on multigrade instruction. *Journal of Research in Rural Education 7*(2), 3-12. (ERIC Document Reproduction Service No. EJ 424 922)

Monahan, R. G., Miller, R., & Cronic, D. T. (1997, March). Rural teachers', administrators', and counselors' attitudes about inclusion. *Promoting Progress in Times of Change: Rural Communities Leading the Way*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 406 085)

Monk, D. H. (1986, August). Secondary school enrollment and curricular comprehensiveness. Organizational alternatives for small-rural schools in New York state. (ERIC Document Reproduction Service No. ED 287 628)

Morrow, K. (1989, May). Locus of control and rural-urban status in gifted high school students. *Roeper Review 11*(4), 207-208.

Nachtigal, P. (1994). Rural education in a period of transition: Are the public schools up to the task? In G. Karim & N. Weate (Eds.), *Toward the 21st century: A rural education anthology*: Vol. 1 (pp. 23-35). (ERIC Document Reproduction Service No. ED 401 073)

National Center for Education Statistics. (1997). *The condition of education 1997*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

National Center for Education Statistics. (1997). *Digest of education statistics 1997*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

National Center for Education Statistics. (1998). The schools and staffing survey (SASS) and teacher followup survey (TFS) CD-ROM: Electronic codebook and public-use data for three cycles of SASS and TFS. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Newland, T. E. (1976). *The gifted in socio-educational perspective*. Englewood Cliffs, NJ: Prentice-Hall.

O'Connell, C. (1985, November). High achievement in rural schools. Portland, OR: Northwest Regional Educational Laboratory. (ERIC Document Reproduction Service No. ED 265 008)

Office of Educational Research and Improvement. (1991). *An agenda for research and development on rural education*. (ERIC Document Reproduction Service No. ED 331 657)."

Osborne, J. K. & Byrnes, D. A. (1990, May/June). Gifted, disaffected, disruptive youths and the alternative high school. *Gifted Child Today*, 45-48.

Pirto, J. (1994). *Talented children and adults: Their development and education*. New York: Macmillan College Publishing Co.

Prater, G. et al. (1996, March). A rural special education teacher training program. *Rural Goals 2000: Building Programs That Work*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 746)

Purdy, D. (1994, Spring). Rural schools and modern visions. *Across the Ridge*, 6-8. (ERIC Document Reproduction Service No. ED 370 733)

Raftery, S. (1989, July). Empowering rural communities for school improvement. Paper presented at the 20th Annual Meeting of the Community Development Society, St. Louis, MO. (ERIC Document Reproduction Service No. ED 315 264)

Reaves, W. E., Jr. & Larmer, W. G. (1996, Fall). The effective schools project: School improvement in rural settings through collaborative professional development. *Rural Educator 18*(1), 29-33. (ERIC Document Reproduction Service No. EJ 533 133)

Regional Laboratory for Educational Improvement of the Northeast and Islands. (1989). *Ideas that work in small schools grades K-6*. Andover, MA: The Regional Laboratory for Educational Improvement of the Northeast and Islands. (ERIC Document Reproduction Service No. ED 310 906)

Regional Laboratory for Educational Improvement of the Northeast and Islands. (1989). *Ideas that work in small schools grades 7-12*. Andover, MA: The Regional Laboratory for Educational Improvement of the Northeast and Islands. (ERIC Document Reproduction Service No. ED 310 905)

Sullivan, D. P. (1994). *William Holmes McGuffey: Schoolmaster to the nation*. London: Associated University Presses.

Sullivan, M. E. (1996, March). Identifying challenges to rural education: Role clarification for administrators. *Rural Goals 2000: Building Programs That Work*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 746)

Sullivan, M. E. (1997, March). Stemming teacher turnover in rural settings: A follow-up study. *Promoting Progress in Times of Change: Rural Communities Leading the Way*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 406 085)

Swanson, J. D. (1995, May-June). Gifted African-American children in rural schools: Searching for the answers. *Roeper Review 17*(4), 261-266. (ERIC Document Reproduction Service No. EJ 506 648)

Tannenbaum, A. (1975). A backward and forward glance at the gifted. In W. Barbe & J. Renzulli (Eds.) *Psychology and education of the gifted* (pp. 21-31). New York: Irvington Publishers, Inc.

Templeton, C. J. & Paden, R. A. (1991). Enhancing curriculum through technology in the rural school. In *Reaching our potential: Rural education in the 90's*. Conference proceedings from the Rural Education Symposium, Nashville, TX. (ERIC Document Reproduction Service No. ED 342 532)

Theobald, N. (1991, Summer). A persistent challenge: Staffing special education programs in rural schools. *Journal of Research in Rural Education, 7*(3), 39-50.

Theobald, P. & Nachtigal, P. (1995, October). Culture, community, and the promise of rural education. *Phi Delta Kappan*, 132-135.

Thurston, L. P. & Navarrete, L. (1996, March). A tough row to hoe: Research on education and rural poor families. *Rural Goals 2000: Building Programs That Work*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 746)

Thurston, L. P. & Sebastian, J. (1996, March). Technology and rural special education: Models and methods for preparing teachers. *Rural Goals 2000: Building Programs That Work*. Proceedings from the Annual National Conference of the American Council on Rural Special Education (ACRES). (ERIC Document Reproduction Service No. ED 394 746)

Troxclair, D. & Karnes, F. (1997, May/June). Public relations: Advocating for gifted students. *Gifted Child Today*, 38-41, 50.

Van Ert, H. & Wolf, J. S. (1996, Winter). Distance training in gifted/talented education: Description of a collaborative working model. *Rural Special Education Quarterly 15*(1), 24-28. (ERIC Document Reproduction Service No. EJ 523 564)

VanSciver, J. H. (1990, October). Delaware's Rural Assistance Council promotes the rural agenda in the first state. Paper presented at the Annual Meeting of National Rural Education Association, Boulder, CO. (ERIC Document Reproduction Service No. ED 329 401)

Ward, J. G. (1994). Looking at rural schools and communities in the 21st century: The impact of changing demographics and economics. In *Toward the 21st century: A rural education anthology. Rural school development outreach project* (Vol. 1). (ERIC Document Reproduction Service No. ED 401 074)

Webb, C. D., Shumway, L. K., & Shute, R. W. (1996). *Local schools of thought*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools.

Whitmore, J. R. (1980). *Giftedness, conflict, and underachievement*. Boston: Allyn & Bacon.

Witters, L. A. (1979). The needs of rural teachers in gifted education. *Journal for the Education of the Gifted, 3*, 79-82.

Woodrum, D. T. & Savage, L. B. (n.d.). Retention-does it ever really work? A rural dilemma. Morgantown, WV: West Virginia University.

Wright, K. T., III, & Tuthill, S. J. (1997, September). Innovative approaches in rural education. *Rural Information Center Publication Series, Revised Ed.* (54). (ERIC Document Reproduction Service No. ED 414 121)

Development

Connie Belin Fellowship Programs

Precollege Faculty Training Program

AP Teacher Training Institute

Pre-service and Summer Workshops

Practicum in Teaching and Curriculum Development

Endorsement in Gifted and Talented Education

Iowa Leadership Institute

Talent Searches

Belin Elementary Student Talent Search

Middle School Talent Search

National Recognition Program for High School Scholars

International Talent Searches

Challenges for Elementary School Students

Junior Scholars Academy

Iowa Governor's Summer Institute for Gifted and Talented Students

Iowa Summer Institute for the Arts and Sciences

Environmental Health Sciences Institute for Rural Youth

Iowa Talent Project

Summer Institute for Creative Engineering and Inventiveness

Project ACHIEVE

National Scholars Academy

Weekend Institute for Gifted Students

Research

Precollege Students

College Students

Inventors

Families

ACT National Data Bases

Talent Search Data Base

Iowa Distinguished Teachers

Assessment Services

Psychological Educational Assessment

Family Counseling Program

Counseling Laboratory for Talent Development

Practicum in Counseling and Psychological Services

Special Events

Wallace Research Symposium on Talent Development

Wallace National Policy Conference

Wallace Rural Schools Conference

Belin-Blank Recognition Ceremony

Invent, Iowa! State Convention

American Regions Mathematics League

Out-Reach

Invent, Iowa! In-services

Weekend/Distance Learning Programs

Staff Development

School Consultations

Program Evaluations

International Seminars and Consultations

Research and Training

University Programs

College of Education Honors Opportunity Program

National Academy of Arts, Sciences and Engineering

University ACHIEVE

Iowa Talent Project

Development and Public Relations

Federal Grants

State Grants

The University of Iowa

Private Foundations

Individual Benefactors

Fund Raising

Media Relations