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ABSTRACT

This anthology focuses on rural education improvement that will prepare students for the 21st century. Articles address issues related to school funding, educational technology, curriculum offerings, state and federal policies, the role of rural teachers and administrators in school reform, cultural diversity, and changing socioeconomic factors in rural communities. An introduction by Gordon P. Karim overviews themes of the articles and discusses the role of rural schools in strengthening rural communities. Articles include: (1) "The Rural Context for Education: Adjusting the Images" (Daryl Hobbs); (2) "Rural Education in a Period of Transition: Are the Public Schools Up to the Task?" (Paul Nachtigal); (3) "Looking at Rural Schools and Communities in the 21st Century: The Impact of Changing Demographics and Economics" (James G. Ward); (4) "Better Together: Rural Schools and Rural Communities" (Toni Haas); (5) "The 'New' Federal and State Education Agenda" (E. Robert Stephens); (6) "Small Is Necessary: Strengthening Rural Schools" (Anne C. Lewis); (7) "The Evolution of a Rural Learning Community" (Dennis D. Gooler); (8) "Technology, Television, and an Out-the-Window Rural Interdisciplinary Curriculum: Or How Thoreau Teaches Social Studies, Language Arts, and Science" (Jim Page); (9) "The Changing Educational Needs of the Rural Student" (V. Pauline Hodges); (10) "Natural Metaphors of Change for Sustainable Rural School Communities" (James A. Lewicki); (11) "Why Rural Education Has Not Received Its 'Fair Share' of the Funding--and What To Do about It" (Jonathan Sher); (12) "'At-Risk' Rural Students Benefit from Integrated Approach" (V. Pauline Hodges); (13) "The Critical Role of Rural Teachers in the Educational Reform Movement" (David Leo-Nyquist); (14) "Preparing Students for the Real World" (John Wilcox); (15) "What Administrators of Smaller Schools Do" (Constance M. Perry, Thomas H. Perry); (16) "Rural School Counseling: Turning Obstacles into Opportunities" (Catherine McConnell); (17) "Affirming Culturally Diverse Students with a Literature of Their Own" (Ginny Carney); and (18) "Reform in Mathematics Education: What's a Rural or Small School To Do?" (Jerry Johnson). (LP)

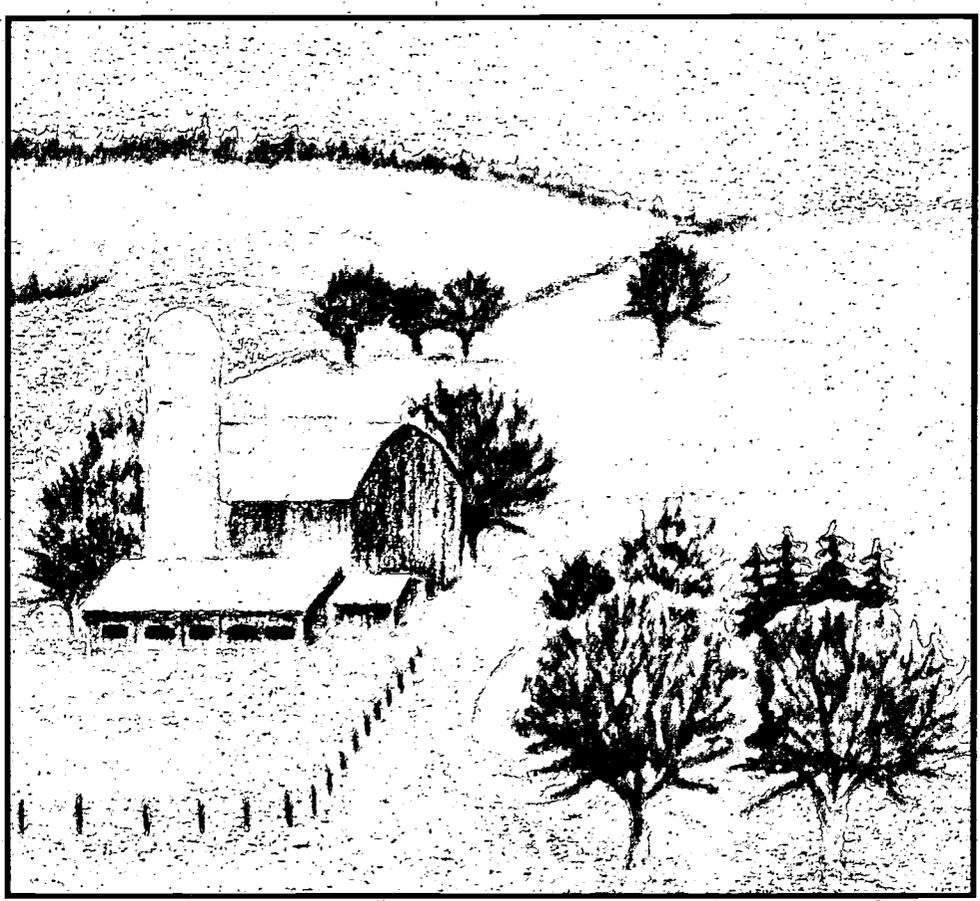
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Toward the 21st Century *A Rural Education Anthology*

Volume 1

Rural School Development Outreach Project



Edited by

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The North Central Regional Educational Laboratory (NCREL), one of ten federally supported regional educational laboratories in the country, works with education professionals and policymakers in a seven-state region: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin. NCREL's mission is to support school restructuring to promote learning for all students—especially those most at risk of academic failure in rural and urban schools.

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Acknowledgements

A big-city convention center may seem an unlikely place for rural school teachers to plan publications about small, rural schools. But on November 17, 1989, a group of rural English teachers did just that. These teachers, who formed the Committee on English Language Arts in Rural Schools, met at the National Council of Teachers of English (NCTE) Annual Convention in Baltimore, Maryland. The Committee agreed that preservice and inservice educators in rural schools would welcome publications about the rural school scene. We decided to contact organizations similar to NCTE—e.g., the National Council of Teachers of Mathematics (NCTM) and the National Council for the Social Studies (NCSS)—to see if they would contribute to the project.

By the 1990 NCTE Annual Convention in Atlanta, Georgia, we had narrowed the scope of the project to reflect a wide range of critical rural education issues. And, we had decided to publish this work as an "anthology." Over the next year, we collected more than 100 articles and essays for possible inclusion in the final publication.

During my tenure as chairperson of the Committee—which later became known as the Assembly of Rural Teachers of English (ARTE)—I met with Joe D'Amico, director of Rural Education at the North Central Regional Educational Laboratory (NCREL). We discussed the project and NCREL's role as publisher of the anthology. As the project moved from the "collection of articles" phase to the production phase, NCREL's rural education staff, headed by Gordon Karim, conceptualized the project, selected manuscripts, formatted the documents, and planned for distribution of the anthology.

Along the way, many other organizations and individuals contributed their time, effort, and expertise. Our good friend Gordon Hoke helped us to select the kinds of information that rural educators want on their desks. The National Rural Education Association helped us to identify the most critical issues in rural education today. And, of course, members of the Assembly of Rural Teachers of English kept us focused and "on-track" with this ambitious project. We also would like to gratefully acknowledge the participation of the following organizations:

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Far West Laboratory for Educational Research and Development
International Reading Association
Music Educators National Conference
National Art Education Association
National Association of Elementary School Principals
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Rural School Counseling Interest Network
Speech Communication Association**

*Nathan James ("Jim") Weate, Past Chair
Assembly of Rural Teachers of English
March 1995*

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Introduction

Gordon P. Karim

North Central Regional Educational Laboratory

Through the years, American popular culture has created and preserved many stereotypes of rural people and their culture. For example, the characters of "Green Acres" and "The Beverly Hillbillies" reside in our collective memory as unflattering caricatures of "rural" people. On the other hand, William Least Heat-Moon's ethnographic accounts, *Blue Highways: A Journey Into America* and *PrairieErth (A Deep Map)*, offer a positive view of the landscape and people of rural America, as does Garrison Keillor's "Prairie Home Companion" radio program. Even the "Marlboro Man" evokes specific images of rural America, blurring the line between reality and its commercial representation. These examples demonstrate how collective memory, over time, is transformed into tradition.

What Is Rural?

Although literature and popular culture entertain and engage us, they also have obscured the reality of rural America by presenting more fiction than fact. This over-simplification of rural life in popular culture and the news media, among other factors, have led to a lack of understanding about the real problems faced by rural Americans. Rural people often are thought to have fewer or simpler problems than their urban counterparts. As a result, the diversity, complexity, and uniqueness of rural America have largely been ignored or misunderstood by both the population

at-large and policymakers at all levels. Moreover, little has been done to study or assess rural needs. Thus, as respected educational historian David Tyack has pointed out, the same policies and strategies that are applied to large urban centers are often imposed upon rural populations.

However, whether we like it or not, urbanization and modernization have encroached on rural life, and rural areas have become less distinct from urban areas. We can no longer say "rural is simple and urban is complex" or "rural is homogeneous and urban is heterogeneous." Rural communities are no longer havens from metropolitan problems. Today, they face many of the same ills long associated with urban areas: poverty; broken families and communities; and increases in crime, violence, drug and alcohol use, teen pregnancy, and suicide. Even many rural gangs are no longer urban imports but "home-grown" commodities.

An understanding of "rural" that is based solely on numerical data or cultural and economic stereotypes is inadequate and undermines our understanding of the needs of rural people. As fewer and fewer rural communities rely on agriculture-based economies, we must ask more probing questions about lifestyles to understand rural America. These questions must not be based on our misperceptions. Instead, they must focus on three primary issues:

- **Equity and Advocacy**—Do rural communities receive their fair share of the resources needed to maintain their viability as a community? Are rural communities

politically empowered to advocate for their fair share?

- **Access**—Do rural communities have access to the social, political, economic and cultural opportunities they need to maintain their viability as a community? Why or why not?
- **Growth, Change, and Tradition**—How can rural communities move into the 21st century without giving up the attributes that make them unique and desirable places to live?

In the midst of changing rural socioeconomic conditions and lifestyles stands the rural school.

The Role of Rural Education

The issues confronting rural schools are well represented in this anthology: school funding, educational technology, curriculum offerings, state and federal policies, the role of rural teachers and administrators in school reform, cultural diversity, and more. This collection also addresses the socioeconomic conditions associated with these educational issues. For instance, it is increasingly difficult to separate the "cycle of poverty" and the "working poor" from rural educational issues. Children cannot learn if their basic needs are not being met. Other related factors such as inadequate housing, lack of access to health care and other vital social services, and relatively fewer support staff and services also undermine the quality of rural life and consequently rural education.

While these issues are similar to those faced by inner-city schools, the rural responses are different. One difference between rural and urban areas is the way educational and other social services are—and ought to be—delivered. Because service delivery is a

market-driven phenomenon, rural communities—especially the most remote ones—often do not have a large enough population to attract inexpensive, quality services. Alternative service-delivery systems must be created to keep these communities within the service-delivery loop.

Many Voices, Same Agenda

Over the years, many voices have drawn our attention to the barriers to effective rural education, and just as many voices have outlined strategies to bring reform to rural schools. These voices belong to many people: superintendents, principals, administrators, teachers, students, parents, concerned community members, academics and other educators, sociologists and anthropologists, local and national politicians, and, of course, the news media.

For everyone interested in rural education issues, this anthology attempts to bring together some of the voices that speak knowledgeably about rural education. While the anthology does not include *all* viewpoints or perspectives on rural education, it does attempt to address the more significant issues. Contributions come from rural administrators and teachers, university professors, researchers, and even a rural school counselor. Whatever their field, all of the authors share a genuine concern for rural students. In effect, the anthology is an introductory overview of the broad field of rural education that should help the reader explore *rural education* as a whole.

Articles in this collection were selected with this goal in mind. Many of the contributions have been published or presented elsewhere: in books, journals, magazines, or database compilations or at conferences or seminars. Some contributions are the products of NCREL initiatives or symposiums.

Others are more personal accounts. Some of the authors are "famous" in the field, but not all. We believe that everyone involved in the task of educating rural students has something valuable to contribute.

We followed the same democratic and eclectic approach with methodologies; they include case studies, experiments, surveys, essays, overview accounts, and personal anecdotes. We feel that a sampling of methodological approaches and perspectives contribute far more to an overall understanding of rural education than any one methodology could. Different methodologies yield different insights.

A word about the development of the anthology. As we reviewed over 100 articles and manuscripts for this volume, recurring topics helped guide our selection of themes for the anthology. These themes were

consistent with those identified by rural education researchers, such as DeYoung, Lewis, Nachtigal, and members of the Rural Congress of the National Rural Education Association. The themes also reflected our own field experiences. The content of future volumes will be determined by the same framework.

This first anthology focuses on rural education improvement for the 21st century. It is an attempt to frame some of the broad issues that rural educators will have to confront before the year 2000. Subsequent volumes will focus on more specific issues, such as instruction, learning, partnerships, underserved children, and more. The purpose of the project is to provide the best information to rural school policymakers—information we hope they will use for school improvement.

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The Rural Context for Education: Adjusting the Images

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Editor's Note: This chapter originally appeared in Education in the Rural American Community: A Lifelong Process (1992) by Michael W. Galbraith (Ed.). It has been adapted and reprinted here with permission of the author and Krieger Publishing Company.

Consideration of today's rural communities is hampered by an absence of any clear definition of either *rural* or *community*, or a consensus about what they mean. Both terms are somewhat like beauty; their existence and meaning are in the eye of the beholder. But whether precisely defined or not, both terms are widely used in everyday discussion and both share a capacity to evoke images and emotions. Indeed, these images are being combined by advertisers to portray "the country" as an ethic, idea, and lifestyle. The images of country, as portrayed in the marketing of products from blue jeans to music to suburban housing developments, cast rural communities as an escape from the constraints, pressures, and fast-paced life of the city.

But commercialized images of "the country" vary substantially from the reality of rural America. Advertisers portray rural America as a bastion of hard work, tradition, and simple lifestyles and as a place where people know and care about each other. Rural people are seldom portrayed as

wealthy, but nevertheless are thought to be enjoying the good life. According to public opinion polls conducted over the past several years, most Americans—rural and urban—report that they would prefer to live in a rural area or small town if offered a choice (National Rural Electric Cooperative Association, 1992).

But the facts about rural areas paint a different picture:

- In 1989, the median family income for metropolitan (urban) areas was \$37,933 compared with \$27,620 in nonmetropolitan (rural) areas. Urban income is 37 percent greater than rural income and growing more rapidly (Ghelfi et al., 1993).
- The poverty rate in nonmetropolitan areas is 35 percent higher than the rate in metropolitan areas.
- Even though unemployment is 25 percent higher in rural areas than in urban ones, *underemployment* is a more serious problem for rural communities.
- About 10 percent of rural counties are classified as "persistent poverty" counties because they remained in the lowest 20 percent in income over the past 40 years.

- "Rural" counties that experience rapid population and income growth are generally close to major metropolitan areas and are becoming more urban than rural in lifestyle and occupation.

Times have blurred what were once clear distinctions between rural and urban America. The extremes (e.g., midtown Manhattan compared with a small ranching town in the Nebraska Sand Hills) are still easy to find and classify as urban or rural, but most Americans now live somewhere between those extremes. Over the past several decades, American society has been transformed into a mass society that is dominated by urban lifestyles, economic activity, and institutions that extend into and engulf the country. Rural people, however they are defined, now watch the same television programs, consume the same products, and work at many of the same jobs as their urban counterparts. Thus, much of what has affected rural Americans originated in and around cities. Indeed, those changes have forced some redefinition of rural and urban. But first a bit of history about the cities to give us a better foundation for understanding today's version of rural.

Because agricultural mechanization reduced the need for farm workers and because the economy and number of jobs have grown disproportionately in the cities, rural Americans have moved in a steady stream throughout this century to urban areas for employment. American cities were literally built on this influx of rural residents. However, the rural-to-urban immigrants did not leave their rural values completely behind. One result was the dramatic growth of suburbs around larger cities, especially following World War II. To a great extent, the

suburbs reflect a kind of rural-urban compromise—between the economic necessity of living near better paying jobs and a preference for open spaces and other features of a rural lifestyle. The suburbs quite literally were an invention to combine economic necessity with some rural-based values.

Conversion of Cities to Metropolitan Areas

Beginning with close-in suburbs, urban areas have continued to sprawl and grow outward, making the boundaries of cities less and less distinct. Today, cities are the focal point for metropolitan areas that extend far into the countryside. This continuing sprawl has been energized both by urban people retaining their city jobs and moving to smaller outlying "rural" communities and by small town and rural people regularly commuting to jobs in the cities. The automobile and the vast infrastructure that supports it have emancipated rural people from the land and released urban people from the city. As improved transportation has reduced distances, a concomitant blending of countryside into town, town into suburb, and suburb into city has given rise to the concept of a rural-urban continuum to replace the rural-urban dichotomy. It has become possible for more people to live in rural areas or small towns and enjoy access to urban jobs and other amenities. Correspondingly, cities have grown out more than up.

In recognition of this urban sprawl, the U.S. Bureau of the Census has developed the term *metropolitan area* along with the technical definition to classify it. Although the definition is detailed and complex, metropolitan counties, simply defined, are those that include a city of 50,000 or more

and/or are counties that are near large cities and have a highly urbanized population. Of the 3,067 U.S. counties, 626 (20%) are classified as metropolitan and 2,441 as non-metropolitan. Together, the metropolitan counties included 79 percent of the U.S. population in 1990; nonmetropolitan counties included 21 percent. All 50 states include at least one metropolitan area, but in New Jersey 100 percent of the population live in a metropolitan area, while in Montana only 24 percent live in such areas (U.S. Bureau of the Census, 1991).

Metropolitan areas such as Atlanta, St. Louis, and Minneapolis-St. Paul continue to expand horizontally and have become labor and service market regions as large as 100 miles or more in diameter. The St. Louis metropolitan area is illustrative. The officially designated St. Louis standard metropolitan statistical area (SMSA) includes ten counties—five in Missouri and five in Illinois—with a total population in 1990 of 2.5 million. Movement out from the central city is reflected in St. Louis's city population, which declined from 850,000 in 1950 to about 397,000 in 1990. Only one-sixth of the metropolitan area's population resides in the city that gives the region its name. The ten St. Louis SMSA counties include more than 200 incorporated places, many of which were once smaller rural trade centers that have become "bedroom" towns—that is, places where people live, although their livelihood is in the city.

Urban sprawl is important also because many rapidly growing and higher-income nonmetropolitan counties are within the reach of this sprawl. Indeed, as the sprawl continues, more nonmetropolitan counties at the periphery will be reclassified as

metropolitan. For example, as the population continued to grow on the periphery of St. Louis's metropolitan area, two additional counties were added following the 1990 census, increasing the number of counties in the SMSA from 10 to 12. Thus, a part of metropolitan growth and nonmetropolitan decline can be attributed to statistical reclassification.

From Urban-Rural to Metropolitan-Nonmetropolitan

The classification *metropolitan-non-metropolitan* has nearly replaced *urban-rural* in public policy analysis, legislation, research, and so forth because it is most frequently used for reporting demographic and economic data. Indeed, the term *metropolitan area* has generally replaced *urban* or *city* as a description for large population concentrations. The classification is more than a statistical artifact. For example, in recent years federal legislation has provided for a lower level of reimbursement for Medicare services performed by nonmetropolitan physicians and hospitals than for the same services performed by metro-area physicians and hospitals.

Although the definition of metropolitan is relatively precise, the definition of non-metropolitan is not. The term nonmetropolitan is a residual; it is what is left over after the metropolitan areas have been taken out. Indeed, the very label indicates that it is whatever is *not* metropolitan. The only consistent basis for differentiation is population density—the basis on which a county is officially defined as metropolitan. The concept of rurality once had significant economic, social, and political associations, but the nonmetropolitan concept that has

replaced it is primarily, though perhaps not totally, geographic: one of the still distinctive features of rural areas is the distance that separates the homes of rural people (Gilford, Nelson, & Ingram, 1981). So "nonmetropolitan" is that 21 percent of the population that is less tightly squeezed together than the 79 percent defined as metropolitan. Because of the broad definition, nonmetropolitan areas include cities of just under 50,000 as well as the open country and the smallest villages. The economic span in nonmetropolitan areas also is quite broad, ranging from very high-income resort communities such as Aspen, Colorado, to some of the poorest communities and neighborhoods in the nation.

Traditionally the idea of "community" in rural areas was linked with a town. Indeed, "town" and "community" are often used interchangeably in rural areas. Certainly, nonmetropolitan America has far more towns and places to inspire a sense of community than metropolitan areas. Altogether in 1990, the U.S. had 19,290 incorporated villages, towns, and cities. Only 12 percent of the incorporated areas had a population of more than 10,000; 88 percent had a population of less than 10,000 (U.S. Bureau of the Census, 1991).

Incorporation of Rural America Into the Mass Society

In order to understand contemporary rural America, it is important to understand how and why rural areas have lost many of their distinctive qualities in recent decades. Until recently, the concept of rurality represented a bundle of closely interrelated economic, social, and political traits. The term "rural" referred to more than a

geographic category; it was a way of life, a rural culture. Rural life was easily understood because it had a bundle of factors that reinforced one another. Today the bundle has come apart, and the various characteristics that once were closely associated with rurality are now almost completely unrelated (Gilford, Nelson, & Ingram, 1981). It is that uncoupling that complicates easy generalizations about rural areas.

Improvements in transportation and communication technology have transformed rural America and have helped incorporate it first into the mass society and more recently into a global economy. National markets have replaced local markets for rural goods and products, and mass merchandizing and franchises have begun to replace local merchants as distributors of goods. Improvements in transportation have improved access to more centralized services. Shopping centers and improvements in communication have exposed rural people to the same information and advertisements as urban dwellers. Not only do rural people watch the same TV programs, read the same newspapers, and rent the same movies as one another, but they also purchase the same goods, usually from the same franchise stores found in urban shopping malls. Indeed, because of regionalization of services they often make those purchases in urban shopping malls. What rural people have in common across the country is not so much a distinctive rural lifestyle, but rather consumption of the same goods and exposure to the same media. As a result, rural residents have as much or more in common with urban residents as they do with each other.

However, this transformation was not due to market forces and technology alone.

It was greatly reinforced by public policies. In recent decades, the goals of rural improvement and development programs and policies have been oriented toward making rural America more like urban America. For example, public policies encouraged school consolidation to make rural schools larger and more like urban schools. Infrastructure investments and training helped to move lower-skill industries from urban to rural areas, which also expedited the concentration of health, retail, and other services in larger rural trade centers.

Incorporation into a mass society has affected rural people beyond their role as consumers of goods and services. Other national trends have affected rural areas as well, with similar effects on lifestyles. For example, rural women across the nation have entered the work force in nearly as great numbers as urban women (Ghelfi et al., 1993). As a result, a demand has been generated for child care, more meals are eaten away from home, and more stress has been placed on rural families. These changes are especially important when you consider that rural workers, especially women, generally work for lower wages than their urban counterparts (Deavers & Hoppe, 1991). Because many rural or small town residents must travel farther to work or shop, they have less time available for community activities and family life. In view of these changes, along with the greater incidence of rural poverty, low income, and marginal employment, it is not surprising that rural social service workers, mental health workers, and other helping professionals report an increase in stress-related problems in rural areas (Bokemeier & Garkovich, 1991). The commercialized image of country does not include these problems, but they do exist.

Economic Changes

It seems somewhat contradictory to emphasize that while rural America has been incorporated into the mass society, it has become increasingly diverse at the same time. Although rural people have become more alike in what they consume, they have become more different from each other in what they produce and how.

As late as the 1950s, most rural counties counted agriculture as the basis for their economy; if not agriculture, their economy was based on mining, timber, fishing, or some other natural resource-based industry. However, times have changed. Today, manufacturing and retirement income account for more rural income than farming. According to a recent U.S. Department of Agriculture study that classified nonmetropolitan counties by the principle source of their economy (Henry, Drabenstott, & Gibson, 1987), about 25 percent (618) of nonmetropolitan counties can be classified as "manufacturing." Most of these counties are found in the Southeast. They include about 36 percent of the total nonmetropolitan population and 36 percent of total nonmetropolitan income. These counties converted to a manufacturing economy in the 1950s, '60s, and '70s as mature product industries (generally low-skill) moved from cities in the Northeast to rural areas, drawn by cheaper and unorganized rural labor and reinforced by public investments in highways, industrial parks, vocational training centers, and so forth.

The same U.S. Department of Agriculture study classifies 515 nonmetropolitan counties as "retirement." The classification is based on the number of residents who relocate to an area upon retiring. Generally,

these counties have environmental or recreational amenities. They include such areas as central New Mexico, the Missouri and Arkansas Ozarks, the Smokey Mountain areas of Tennessee and North Carolina, and the northern portions of Minnesota, Michigan, and Wisconsin. During the 1980s, the retirement destination counties had the most rapid rate of population growth (16%) of any of the USDA rural county types (Johnson, 1993). These retirement counties also have experienced the most rapid rate of income growth in recent years (Hady & Ross, 1990). In rural areas, 83 percent of the income of the elderly is classified as unearned income—a combination of transfer payments (mostly Social Security) and property income (Hoppe, 1991). Unearned income accounts for about 37 percent of the total rural income (Hoppe, 1991).

The U.S. Department of Agriculture classifies another 25 percent (602) of counties as "farming" counties, but these counties account for only 11 percent of the non-metropolitan population and 12 percent of total nonmetropolitan income. Most farming counties are located in the upper Midwest and the Plains States. Other classifications include mining and energy extraction (7%); government, those having a military base, major university, etc. (10%); and trade, counties with a larger town that serves as a regional trade and service center (15%).

These classifications reveal an important fact about today's rural America: most rural communities rely on one major source for their economic base. In contrast, metropolitan areas generally have a diversified economy. Therefore, rural communities are more economically vulnerable. For instance, a corporation can move a branch

factory to a rural area and create a local economic boom. However, if the corporation later decides to relocate the branch, it may leave the community holding the bag. Communities that depend on farming tend to experience economic peaks and valleys as farm prices fluctuate in response to national and international market forces. Thus, the well-being of most rural communities depends heavily on economic decisions and forces over which residents have little control (Padfield, 1980).

The economic transition of rural America from agriculture and other natural resource-based industries to different and more specialized economic activities has contributed most to the diversification of rural America. Rural areas now include factory towns, ski resort towns, cattle ranching towns, coal mining towns, oil drilling towns, retirement communities, and so on. These are more than just labels; a community's economic base affects its social organization, social class structure, demographic composition, leadership, wealth, and more. Therefore, to understand a rural community you must first determine the community's economic base and how that base is affecting its current and long-term prospects. For example, most farming communities have been losing population for years, while most rural retirement, government, trade, and commuting communities have been growing (Johnson, 1993).

Economic Vulnerability of Rural Residents

Per capita income in nonmetropolitan America is well below that of metropolitan areas and is falling farther behind (Ghelfi et al., 1993). One reason for this inequity can be found in the most common sources of

urban and rural income. Real income (constant dollars) for professional, managerial, technical, and complex manufacturing workers has been increasing nationwide. The number of people employed in such occupations is increasing, too. However, most of these jobs are located in metropolitan areas. On the other hand, both income and employment opportunities have declined among natural resource-based occupations and routine (low-skill) manufacturing. Those occupations are far more prevalent in non-metropolitan areas. Thus, higher-paying occupations are disproportionately located and growing in metropolitan areas and lower-paying occupations are disproportionately located in rural areas (Falk & Lyson, 1988). The income gap continues to grow. As a result, the more highly educated rural people continue to move to metropolitan areas, leaving behind a higher proportion of working-age rural residents who are struggling to make ends meet.

Low-paying occupations contribute to rural poverty. Data from the 1987 Census of Poverty reveal that 70 percent of rural families living below the poverty line have at least one employed family member; 40 percent have two or more (Greenstein, 1988). The profile of rural poverty that emerges is that of a "working poor." The rural poor also tend not to have equal access to benefits usually available to low-income people because the criteria for these benefits do not apply as well to rural people (Tweeten, 1980). For example, recent studies (Korsching & Lasley, 1985) reveal that the actual rate of rural unemployment is much higher than official estimates. One reason is that a higher percentage of rural workers are self-employed and "informally" employed. Self-employed people are

not counted as unemployed, although they may be seriously underemployed. Another cause of unemployment is that declining population usually means a loss of business for local establishments.

The greater economic vulnerability of many rural residents lies not only in lower-paying jobs, underemployment, and lack of stable jobs, but also in the absence of benefits usually associated with unemployment. Because more rural people are self-employed, irregularly employed (seasonal work, for example), or employed part-time, they do not receive the same protection from unemployment compensation, training programs, and so forth. Recent studies also reveal that low-wage workers and employees of small businesses are far less likely to have health insurance coverage as an employee benefit (*The State of Small Business, 1987*). While the economic marginality of many rural residents creates a potential demand for adult education and skill training, such training must be accessible and offer realistic prospects for improved income if it is to be effective (Lichter & Costanzo, 1987).

Interdependence or Dependence?

Although economic changes have diversified the rural economy, the effects have been uneven. Some rural areas have seen great increases in income and employment, while others have faced persistent poverty. Most have experienced the widening gap between metro and nonmetropolitan income. The reality is that, whether economic winners or losers, rural areas have become more dependent on economic forces beyond their control. But not just the rural economy has been affected. Incorporation into the mass society and increasing centralization of institutions and services such as education and health

care also have reduced local control. Not only is the rural economy directly connected with national and international markets, but rural schools, health care, and other services have become a part of national systems. One consequence of these changes is greater rural community dependency and less autonomy.

Agriculture, the traditional foundation of the rural economy, exemplifies the growing interdependence. Most rural communities came into existence a century or more ago to meet the production and consumption needs of the surrounding farmers. Today's commercial farmers are accustomed to operating in an environment of national and international markets. Farming is less local and more national and international; it is less dependent on local community services and markets and more dependent on regionalized services and terminal markets. Farming has become a component of an elaborate agribusiness sector. As a consequence, although most farmers claim a rural community as their residence, many farm businesses do not depend on the services of the local community. The same could be said about most rural factories, mining and energy corporations, and other businesses.

Many rural communities depend on other towns for retail and other necessary services. As rural areas bought into the concepts of a mass society (e.g., specialization, centralization, and standardization), many businesses closed in smaller towns and were replaced by businesses concentrated in larger rural trade and service centers. Although the size of such centers varies from one part of the country to another, most have a population of 10,000 or more and have substantial concentrations of retail stores, physicians

and other health care services, media, and so forth. Along with this regionalization, many franchise businesses, such as discount stores, fast food restaurants, and hardware chains, have opened in these trade centers. Which communities become the location of these businesses is determined more by market analysts in corporate headquarters than by local independent entrepreneurs. Indeed, many rural communities compete for the location of such franchise businesses just as they compete for factories to relocate in their towns.

Centrifugal Effects on Rural Communities

As a consequence of increased economic dependence, the economic and service role of thousands of small rural communities across the country has diminished. Those communities were once places where people went to church, worked, shopped, went to the doctor, and went to school. Today, their residents depend on other, larger communities for necessary services. Figure 1 shows some of the centrifugal influences that affect smaller rural communities.

Figure 1



It is increasingly difficult for rural residents to maintain a sense of community when so many things they depend on are located somewhere else. The effects are comprehensive. Modern mass media often provides rural residents with better information about what is going on in the world outside their community than events closer to home. As mentioned above, more and more rural residents get retirement income from Social Security and other transfer payments. Because they do not depend on the town for their livelihood, their interest in the town tends to diminish. Because a growing proportion of funding for rural schools and other government services comes from state and federal sources, many local organizations (such as schools, hospitals, and government boards) pay as much or more attention to the sources of those funds as to the town itself. All of these influences compete for time and attention with the community and make the task of retaining a strong sense of community even more difficult.

Communities and Changes in Boundaries

A community can be thought of as a social space occupied by members who perceive common traditions and ways of doing things, as well as problems that affect the vitality and viability of their community. Communities become effective when they organize themselves to address and resolve their commonly perceived problems. It is that quality that Peshkin (1982) refers to as community integrity—a sense of unity and wholeness shared by members. One part of integrity involves boundaries: What are the boundaries of the community? Who is a member and who is not?

We refer to community as social space in order to emphasize a quality of community beyond geographic or physical space. Everyday experience makes it clear that people living close to each other, such as in an urban apartment building or neighborhood, do not necessarily share a sense of community. They may not even know each other and make no attempt to become acquainted. Social space refers to a sense of belonging whether physically close or not.

Proximity, or sharing the same physical space, historically was associated with the idea of community in rural areas. In many rural communities, the social and physical space coincided. The community had a physical territory that was essential to its identity. Accordingly, community residents resisted changes that threatened those boundaries. The great controversy surrounding school consolidation in many rural communities provides an example. To residents of a community threatened with the loss of a school through consolidation, resistance often is based as much on perceptions of damage to the integrity of the community as on more technical considerations of curriculum, cost, efficiency, and so forth (Smith & DeYoung, 1988). Not only does consolidation threaten loss of a valued community possession, but, in many rural areas, the school is the centerpiece of community activity and, therefore, crucial to the community's identity. School and community reinforce each other greatly in many rural areas.

School consolidation is one of an array of external influences that contribute to the restructuring of the social and physical boundaries of today's rural communities. Because the school is central to the rural community, many rural residents emphasize

that school district boundaries, which usually include several towns, have become a more meaningful social space than the trade area of the closest town. To a great extent, community boundaries and the network of relationships that give it meaning are expanding horizontally in rural areas. As this trend continues, however, residents feel a diminished sense of community identity. Consequently, the idea of social space is beginning to replace physical space as the delineation of many rural communities.

Developing and Preserving a Sense of Community

The emergence of new rural trade and service areas and the replacement of proximity by social space compound the task of community development for many smaller rural localities. But communities often have a quality that can transcend economic influences and demographic classifications—a "sense of community." As suggested by Peshkin (1982):

Census data permit the creation of a useful picture of a place, one that allows ready comparisons and contrasts. What such data do not reveal is the sense that the residents of such a place have about themselves and about the relationship with other places, a sense that is derived from a compound of historical and contemporary fact and fiction. (p. 12)

If a place is both small and rural, it is likely that residents will work to retain a sense of community. But size and locale alone are no guarantee. Social and economic changes make a sense of community more problematic, more difficult to sustain. In rural communities that experience population decline and

loss of businesses, residents can develop a sense of fatalism and resign themselves to continued decline. On the other hand, rural towns that experience a population growth of retirees or metropolitan workers must integrate the new residents into the history and fiction of the old community if it is to be retained. Or residents must create a new history and fiction in order to create a new sense of community. Indeed, for residents of such communities, the presence of newcomers can be threatening because community is more than space, it is involved with individual identity. As observed by Jonassen (1968):

A community may be bound up with one's identity such that it has become an extension of an inhabitant's ego so that any action which seems to diminish the status of the community and its security becomes, in effect, a threat to the self and security . . . of the individual involved. (p. 32)

Changes originating outside the community also can produce intense conflicts. All of these changes make it more difficult for a community to maintain a consensus. Traditionally, rural communities strived for consensus and avoided conflict (Padfield, 1980). Indeed, the absence of conflict is a persistent image of rural community life; it is also at variance with the facts.

New Bases for Conflict

"The mixing of rural with urban values, lifestyles, and vocations is generating vitality, change, and growing conflict over the current state and future path of rural communities" (Gilford, Nelson, & Ingram, 1981, p. 4). As new social and physical boundaries of rural communities are established, residents face potential conflicts

between different interests and values that were often sublimated within smaller communities in the past.

Rural and urban America differ substantially in income, employment, and other measures of economic well-being. Reducing or eliminating those differences has been a prominent rationale for rural development initiatives from the federal level on down to the local level. Thus, rural development has been defined largely in terms of growth in income, population, and employment, and the addition of services that growth would facilitate. Many rural leaders have bought into this definition. As a result, even very small rural communities are likely to have a community industrial development committee to attract industries and expand their economic base.

Because growth requires change, an emphasis on growth very often conflicts with preserving the integrity of the community as it has existed. Accordingly, advocates of growth and change often find themselves at odds with residents whose identities are linked to the community. Such conflicts can be intractable. Indeed, Padfield (1980) suggests that, of all the contradictions inherent in American society, the contradiction between "growth fundamentalism" and "rural fundamentalism" is one of the more persistent and profound. If growth is achieved, it appears to come at the price of community integrity. Although not always the case, evidence suggests that community growth can result in greater incorporation into the mass society and a corresponding increase in community dependency. The attitudes and beliefs associated with "growth fundamentalism" and "rural fundamentalism"

are at the heart of many community conflicts, including education.

The Centrality of the School and Lifelong Education

Because schools are the most inclusive of all community institutions, requiring nothing more than residency for affiliation, the school is potentially everyone's. In many rural communities, the fact that the school is the largest employer, claims the largest share of the local public treasury, and is the location of most community-wide events reinforces this sense of ownership and the sense of community that often accompanies it. In the words of one rural resident:

This community school, it's the only thing that's a hub or a center, a common thing for everybody in the community. Church isn't 'cause we go to different churches. You'll eventually meet in the school, you'll finally end up at the school, 'cause that's the hub. (Peshkin, 1982, p. 114)

Because schools are intimately linked with community identity and yet the most visible manifestation of the mass society in the community, they often become the battleground for conflicts between growth and tradition in many rural communities. Residents may clash over what the school does and who controls it. The research of Cummings, Briggs, and Mercy (1977) and their analysis of a community conflict concerning textbooks illustrates this point. They stress that the school symbolizes the conflict between the community and mass society and that some community traditionalists conceptualized the school "as an alien social institution, staffed and controlled by

individuals subscribing to cosmopolitan value orientations and beliefs" (p. 16).

Conflicts also can occur *between* communities regarding "ownership and control" of a school. Peshkin's (1982) analysis of school consolidation describes a 20-year process of intercommunity conflict regarding school location. The school's location, far more than its program, was the basis for the conflict because the location had implications for the persistence and survival of the community.

Another conflict regarding education that many rural communities face is between greater local control versus society's emphasis on greater standardization, regulation, and accountability (DeYoung, 1987). The trend of modern society has been toward diminishing prerogatives for individuals and small towns. A school symbolizes community autonomy because it is all that remains of local control in most states. Indeed, education as a function of the state versus the community is a central issue in many school restructuring proposals originating in the early 1990s.

Education and Rural Development

Advocates of change and growth are coming to regard education, broadly defined, as a necessary foundation by which rural localities can arrest the widening rural-urban income gap. Yet, the question remains: What kind of education and for whom? That question is pertinent because expanded investments in traditional education, by themselves, seem unlikely to contribute much more to rural economic development (Reid, 1990).

Rural communities continue to lag behind their urban counterparts in their proportion of college graduates and in occupations that require higher levels of education and training. This lag is both cause and effect for the continuing migration of the most highly educated youth from rural communities. They leave because of an absence of appropriate jobs, and their departure reinforces the rural deficit in educational attainment. As these youth leave, they also take with them the value of the community's investment in their education. Therefore, rural communities find it difficult to capture a return on their educational investment (Deaton & McNamara, 1984). Because of this long-term transfer of educational investment from rural to urban areas, some economists (Tweeten, 1980) have argued for greater public subsidizing of rural education to ensure equity. While such subsidies would address funding inequities for traditional education, they would not necessarily improve prospects for rural community economic development. Other approaches are needed.

Additional industrial relocation to rural areas is a diminishing prospect (Reid, 1990), and even where it occurs it does little to narrow the rural-urban income gap because low-skill manufacturing wage rates are low (Falk & Lyson, 1988). Consequently, rural development specialists are directing more attention to rural community self-development strategies, including greater emphasis on knowledge-based rural development (Hobbs, 1986). Those strategies emphasize a need for greater attention to, and investment in, adult and continuing education.

Many kinds of adult education are needed to support more knowledge-based rural development efforts:

- Residents whose income and productivity are limited by a lack of skills need skill training. As Lichter and Costanzo (1987) emphasize, such training should be coordinated with local economic development efforts so that people with improved skills can find local employment. Without better employment opportunities, skill training is not likely to be of much benefit either to the recipient or the community.
- Residents who are displaced from an occupation or career need retraining. In recent years, many farmers have been forced from farming, factory workers have lost jobs when a factory has relocated, workers have been displaced from mining and energy occupations, and so on. Such people must find other sources of employment.
- Rural residents need additional education and training to support entrepreneurship. A high proportion of rural workers are self-employed, and small businesses are creating most of the new jobs in rural areas and across the nation. Prospective entrepreneurs need an education that will provide them with the necessary skills and techniques to identify "niches," such as viable business and service opportunities.

Just as important, rural residents need informal and continuing education to support new forms of community self-development. Specifically, they need continuing education regarding the impact of regional and national changes on the rural community.

Such education will enable leaders and citizens to identify realistic options for community change and development. Such education also can help community members more effectively use information and analyze the needs and development possibilities of the locality. Because traditional education focuses more on the world outside the community than on the community itself (Nachtigal & Hobbs, 1988), some rural communities are beginning to modify the role and procedures of the traditional school and school program in order to encompass a broader concept of community education.

Community Development

A community may be defined as a social space in which people perceive common problems. One feature that contributes to the strength of a community is the extent to which members organize themselves to confront those problems effectively. In fact, many analysts refer to the development of a community by its degree of organization and the process by which its residents make decisions. Such development *of the community* is in contrast to developments that occur *in the community* with little local participation (Wilkinson, 1986).

Recent research confirms that communities vary in their ability to achieve self-development. Flora and Flora (1988) identified characteristics of rural towns and communities that continue to improve and that have diversified their local economy despite being hit hard by external market forces. The researchers describe communities that have adapted to macroeconomic changes and have achieved some degree of self-determination through entrepreneurship:

Entrepreneurial communities must set priorities and develop appropriate strategies and tactics. Such communities support local government, have a realistic perspective on the future and are able to overcome capacity limits, weigh alternatives, share new technologies, explore institutional innovation and mobilize new partners.
(p. 2)

Characteristics of Entrepreneurial Communities

- Acceptance of controversy
- A long-term emphasis on education
- Adequate resources to facilitate collective risk taking
- Willingness to invest in local, private initiatives
- Willingness to tax themselves to invest in community improvements
- Ability to define community broadly and to envision larger boundaries for smaller communities
- Ability to network vertically and horizontally to obtain resources, particularly information
- Flexible, dispersed community leadership

Flora & Flora, 1988

These characteristics are a starting point for public institutions that provide adult and continuing education. The task of these institutions is to design programs

to help rural communities become entrepreneurial. To do so, they will need not only new methods and approaches but also the ability to separate the images about rural communities from the facts.

Conclusion and Implications

Education, broadly defined, will likely have as much or more to contribute to the future well-being of rural residents and the quality of life and economic sustainability of their communities as the community's location and natural resources. Natural resource-based industries, the traditional backbone of the rural economy, have seen declining employment—a trend that is likely to continue. Rural communities need new forms of economic activity as well as creative approaches to providing community services. They need knowledge-based economic and community development. The capabilities of rural workers and citizens, and the knowledge and creativity of rural community leaders, will be pivotal in determining which rural communities thrive during the 1990s.

While education is essential to rural success, not just any education will do. First, education must be tailored to meet very different local needs and circumstances. That belief is contrary to conventional wisdom about education, which tends to stress standardization rather than adaptation to local circumstances. Rural America has become remarkably diverse over the past few decades, and different communities and regions face very different constraints and opportunities. Providers of educational services must be prepared to work collaboratively with rural communities to identify needs and the strategies to meet them. Indeed,

needs assessments that effectively involve community residents can be a form of education for participants. Some rural communities are finding that such a process also is an effective learning experience for secondary school students and can influence the students' attitudes and perceptions about their community. In effect, secondary students can become an important community resource while they are learning. Community leaders and educational providers should take advantage of all available resources to assist with such assessments, including the local office of land-grant university extension services, community colleges, regional development agencies, and so forth.

Second, education to support knowledge-based rural development must be nontraditional (e.g., night and weekend classes for adults who need additional job training) as well as traditional (e.g., an 8 a.m. to 3 p.m. school day for students), continual, and oriented to the different needs, ages, and circumstances of residents. Nontraditional education is important because technology and the economy are changing so rapidly that most workers require frequent retraining to retain their skills. Economic changes in many rural communities (e.g., a factory closing, being forced out of farming) have forced many rural residents into midlife occupational changes. They need education and training to help them make the transition. In addition, community and organization leaders need ongoing information and educational services to improve their ability to make decisions and devise new strategies for delivery of services and for community development. One noted rural development specialist contends that the most important rural need is for a more informed local leadership.

Third, in order to be most effective, education and training programs and services must be collaborative, not only among various providers of education and training, but also within a broader spectrum of community groups, agencies, and organizations. Education and training should be an integral component of achieving individual and community goals rather than a separate set of goals. An obvious connection involves closer collaboration between education and training and economic development efforts. Providing skill training for jobs that do not exist is of little benefit to anyone, least of all those who receive the training. The need for collaboration extends to all facets of community life. Educational agencies, largely by neglect, have failed to make it easy for students, especially adults, to make a transition from one level of educational attainment to the next. Clearer communication is needed. In many rural communities, the school is the most prominent community institution and the one that contributes most to community identity. Therefore, it is logical to consider the school as the location for a broader range of community education activities, especially after normal school hours. Schools are a logical place for community seminars, adult counseling, manpower training services, and off-campus courses from community colleges, universities, and vocational schools.

Over the past few decades, education in rural areas has reflected society's trend toward institutional specialization and separatism. Yet, as rural education has become a part of the national system, it has become less attuned to local needs and circumstances. From my review of rural areas, I conclude that rural communities must create a broader role for education and training, and

that those services must become a more integral part of community activity. These changes will require some institutional innovation and more conscious attention to the

types and purposes of education and training if the needs of rural residents and communities are to be met.

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Rural Education in a Period of Transition: Are the Public Schools Up to the Task?

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The quality of America's public schools is increasingly open to question. Starting with *A Nation at Risk* (1983), a growing number of studies and reports have identified inadequacies in the education of our nation's youth. Such criticisms are not new to rural education. Even before the turn of the century, educational leaders were concerned about the "rural school problem." Why, through recent history, have rural schools been considered to be a problem? Are they really inferior to larger urban schools? This paper addresses three related issues:

- How the "rural school problem" came to be defined.
- An examination of data that compares the quality of small rural schools with larger urban schools.
- How rural schools might be redesigned to be more effective as we move from an industrial society to an information/service society.

The Rural School Problem

In the beginning, education in America was rural education. In 1990, approximately three-fourths of America's districts are rural, enrolling approximately one-third of the nation's school children. Even though most of America was rural during the first part of the century and rural districts continue to dominate in numbers, urban professionals very early gained control of the leadership of American public education, leadership that felt compelled to address the "rural school problem." By the 1890s the National Education Association Committee of Twelve prescribed "... the consolidation of schools and transportation of pupils, expert supervision by county superintendents, taking the schools out of politics, and professionally trained teachers." "Don't underestimate the problem of school reform," Ellwood P. Cubberly wrote in 1914:

... because the rural school is today in a state of arrested development, burdened by education traditions, lacking in effective supervision, controlled largely by rural people, who, too often, do not realize either their own needs or the possibilities of rural education, and taught by teachers who, generally speaking, have but little comprehension of the rural-life problem ... the task of reorganizing and redirecting rural

education is difficult and will necessarily be slow.

The urbanization of the public schools into what David Tyack called "the one-best-system" brought with it a mission and a set of quality standards that were much more appropriate for urban than rural settings (Tyack, 1974). The curriculum was designed to prepare an industrial labor force, for jobs primarily in urban areas. Quantity was synonymous with quality. Input characteristics of schools, which were easily quantifiable, were thought to represent quality. The more courses offered, the more books in the library, the greater number of specialized teachers, the better the school. This set of assumptions about school quality continues to dominate public policy, driving much of the recent reform legislation that has swept the country. More courses are being mandated in math, science, and foreign language. There are pressures for a longer school day and school year.

While this system of schooling has served the larger society reasonably well over the last century, it has been at the expense of rural schools and rural communities in at least two ways. First, because bigger is considered to be better, by definition rural schools are "second best." Even with school consolidation, which was and in many places continues to be the solution to the rural school problem, rural schools were not considered to be as good as urban schools because there was no way that they could become equally as large. Second, because the primary measure of school success was how well students were prepared to continue their education and/or find work in larger urban areas, rural schools served to "export" rural students. As a result,

the public school has become one of the biggest economic drains on the resources of rural communities.

The "rural school problem" then is different depending on one's perspective. If viewed from the perspective of the education profession, the problem is perceived to be one of inadequate quality, an issue that we will examine in more detail a bit later. If viewed from the perspective of the local community, the problem is one of being a severe drain on local resources, both human and economic, an issue that also will be revisited in more detail later. First, a few general statements are needed concerning the relationship that exists between rural schools and the context within which they operate.

The diversity of rural America is now well understood. It is diverse in its economic base, diverse in terms of geography, diverse in terms of density of population, diverse in its ethnic and racial make-up, and diverse in terms of the socio-economic status of its communities. Any discussion about the adequacy of public education must acknowledge that socio-economic status, more than any other single factor, determines the success of all students, particularly in those communities where a high percentage of students live below the poverty line. Because of the interrelationships between schools, student performance, and environmental factors, generalizing across rural schools is difficult if not impossible. For instance, a high percentage of students attending rural schools in poor and/or minority communities are clearly at-risk, while most students attending schools in what are thought of as traditional middle-America rural communities, settled by ethnic European immigrants, are likely to receive more than adequate

education with the skills to succeed in whatever arena they choose.

Quality of Rural Schools

The evaluation of school quality has evolved in recent years from looking only at input standards, as discussed above, to include process standards, how well these resources are being used, and perhaps most importantly, the outcomes or performance of schools and their students. What does the data suggest concerning how well rural schools measure up in each of these areas?

Input Indicators

As suggested earlier, input indicators include such things as an adequate, well-maintained physical plant, highly qualified staff, a sufficient supply of books, materials and equipment, and a strong breadth and depth of course offerings. Rural school facilities in general are older, many having grown like topsy in response to the closing of out-lying schools and changing program emphasis. Limited resources, and a tradition of "making do" result in remodeling and adding on rather than building a new facility. A typical rural school might include a multi-story building dating back to the '30s, a new gymnasium added on here, an elementary wing attached there, and a new vocational shop built out behind the main building. More important than the age of the facility, however, is how well it is maintained. Pride and caring for the school sends a message to the students and community that education is important. Rural schools, because they represent the largest community investment and serve as the center of community activities, are generally well cared for.

Rural schools have fewer specialized teachers, who in general have less formal education. Teachers often have three, four, or even five preparations a day, some of which are assignments in areas where they are only minimally qualified. In a study of 24 rural districts Schmuck and Schmuck (1989) found that over 80 percent of the administrators and 90 percent of the teachers interviewed had grown up very close to where they are now teaching. There are both positive and negative aspects of an employment process that results in these figures. On the one hand, an effective school is one that has a coherence around values and mission. Growing up in the area helps insure this coherence. However, a school staffed only with "home-town" type people is sure to be limiting in the exposure to new ideas, resulting in a more parochial educational experience. Rural schools will offer fewer courses at the secondary level, and provide fewer options for special need students at the elementary level.

While the above characteristics that accompany small size have over the years been used as reasons to consolidate rural schools, recent research suggests that further consolidation may not be useful. Monk and Haller, at the request of the New York State Legislature, conducted an extensive study of school size and class offerings. The study, *Organizational Alternatives for Small Rural High Schools* (1986), not only considered the school size/number of class offerings issue, but also looked at the number of teacher preparations and availability of classes (e.g., were classes offered more than one period a day thus reducing schedule conflicts). The study confirmed the fact that numbers of class offerings did indeed

increase as schools increased in size from 100 in high school up to 3,000. It concludes:

... the curricular offerings of the very smallest secondary schools in New York State are seriously deficient. These deficiencies begin to appear when enrollment levels in grades 9-12 begin to fall below 400 and become more serious as enrollments fall further. Several of the deficiencies, most notable the availability of courses, accessibility to the offered courses and the degree to which teachers can specialize, become especially acute when the grade 9-12 enrollment drops below 100. It follows, then that there is very little good that can be said about attempts by the State, or anyone else, to increase enrollment levels in grades 9-12 beyond 400. The only benefit we were able to identify is the fact that variety of course offerings continues to grow beyond the 400 pupil level. But this growth of courses is highly unpredictable and does not lead systematically to the offering of a coherent, widely agreed upon curriculum.

Educational critics such as Goodlad (1984) and Boyer (1983) are being joined by others such as the National Council of Teachers of Mathematics and the American Association for the Advancement of Science in their questioning of the notion that more is better. They point out that the structure of the curriculum that packages knowledge into discrete disconnected courses, taught in 55 minute classes, may not be educationally sound if we are to educate students for the 21st century. This factory model of schooling was fine for an industrial society, but not for the emerging information age.

Just acquiring the basic skills and facts is now not sufficient. Problem solving and higher order thinking skills are needed. Their recommendations include teaching fewer, more integrated courses, in longer time periods. Rural secondary schools, because they offer fewer courses and because teachers often teach in more than one content area, are of necessity closer to realizing these recommendations than large schools.

At the elementary level, experts in the field are also questioning whether specialization has gone too far. Schools are now being encouraged to mainstream special need students, placing them back into regular classes as far as possible. Teaching strategies such as cooperative learning and peer teaching, strategies that are an integral part of multi-grade teaching assignments of the one-room school, are being recognized as good instruction, particularly for students who tend to be at-risk.

Process Indicators

There is a growing consensus of what constitutes effective school characteristics in terms of the educational process. From the work of such notable educator/researchers as Ron Edmonds, John Goodlad, Ernest Boyer, Sara Lightfoot, and Michael Rutter, the consistent elements of educational excellence revolve around such interpersonal and institutional factors as: 1) strong positive leadership; 2) high expectations of student and teacher achievement; 3) respectful relationships among students, teachers, and administrators; 4) individualized instruction and attention; 5) an emphasis on the academic basics; 6) parental/community involvement and support; 7) fair and frequent feedback to both students and teachers on their performance (emphasizing positive

reinforcement of success and progress); 8) a friendly, but businesslike, classroom and school climate; 9) a healthy balance of activities fostering the intellectual, physical, emotional, and social development of students; and 10) a tolerance for individual initiatives and for trying new approaches to learning (Goodlad, 1984; Edmonds & Frederiken, 1978; Lightfoot, 1983; Rutter et al., 1979).

While all of the above process indicators are well within reach of rural schools, their presence or absence is very much related to the community context rather than appearing generically in all rural schools.

Strong, positive leadership. Chance and Lingren (1989) studied the aspirations and realities of rural secondary principals in the Great Plains (North Dakota, South Dakota, Nebraska, and Kansas) and found that 48.3 percent of the principals' time was spent on general managerial duties; 11.5 percent on working directly with teachers; 22.3 percent on disciplining students; and 6.8 percent on meeting with parents. They conclude "It is difficult, if not impossible, to be an instructional leader when a typical day is spent as indicated. It is especially difficult for rural principals to be instructional leaders when 48 percent of them teach and the average teaching load is 35.6 percent of the school day." Killian and Byrd (1988) noted that rural principals did not play the same leadership role as urban principals. Rather, rural teachers were the initiators of change, not the principals; the unit of change for these teachers was the classroom, not the building. Support in the minds of these rural teachers required only that an administrator not impede their efforts. It should also be noted, however, that in spite of the odds,

good leadership can be found in schools of all sizes and when it exists in rural schools, the impact is much greater and the rate of change much faster due to the absence of bureaucratic inertia that is found in larger institutions.

High expectations of student and teacher achievement. Expectations for students and teachers will vary widely from one type of rural community to the next. The standards for those expectations are most likely tied to the experience of the adults. If there are few professional role models and if most of the adults are first generation high school graduates, the expectations will be very different than those in a community where, because of culture or location, high percentages of adults have some college or post-high school education.

Respectful relationships, a friendly but businesslike classroom and school climate, and parental/community involvement and support are all easier to achieve and tend to be present in rural schools. Examining student engagement rates in two Colorado schools implementing a four-day week, Blackadar and Nachtigal (1986) found elementary students attending to their school work on average about 85 percent of the time, a very high rate compared to data from large urban schools in the project. A study of rural high schools in North Dakota (Traugh, 1984) characterized the climate as "relaxed, friendly, personal." "Parents, if called, will help" with students' problems and some parents call to ask, "What can we do to help?" On the down side, and, related to the question of expectations, teachers reported "They'll (parents) knock themselves out to turn out for athletics." Academically, "mediocrity is accepted."

An emphasis on the academic basics. Barker and Gump (1964), in a five-year comprehensive study of fifty-two high schools in Eastern Kansas ranging in size from 35 to 2287, found that large-school students participated in fewer classes and a more limited variety of classes than the small-school students. Horn et al. (1986), in a seven-state follow-up study, found that as enrollment size increased, the percentage of students actually taking such courses as chemistry, physics, or business management decreased. Why is this so when large schools offer many more courses than small schools? In small schools the lack of choices forces students to take a greater variety of courses and more basic subjects—they just have to take what is offered. In large schools, students can begin to specialize. If they like art, there are many art courses to take, often at the expense of exploring other areas or taking more years of math or science.

A healthy balance of activities. Students who are actively engaged in the total process of schooling, including participation in extracurricular activities are also likely to have higher achievement levels. The Kansas study mentioned above found that such participation "reached a peak in high schools with enrollments between 61 and 150. The proportion of participants was 3 to 20 times greater in the small schools as in the largest school (Barker and Gump, 1964)."

Performance Indicators

Given that rural schools have both strengths and weaknesses in terms of input and process criteria, what is the evidence about how well rural schools and the students attending those schools perform? How adequately are students prepared when they

leave rural schools? Unfortunately, the answers to these questions are not readily available for a number of reasons. Haas (1990) suggests a couple of reasons for the thin rural education knowledge base. First, rural education is not precisely defined—there is no useful definition of what is rural. Second, knowledge is not neutral, it is value laden. The usual education knowledge base is created in a context that reflects the prevailing view that rural is, at best, invisible and, more realistically, unvalued.

Adding to the difficulty is the fact that procedures for measuring school and student performance are still fairly primitive. Finally, the impact of SES on student achievement and the diversity of rural America make aggregating data on student achievement almost meaningless. As a result the literature contains very disparate findings. Two kinds of data are provided as a case in point. *Beyond High School: The Experience of Rural and Urban Youth in the 1980s*, a national data file of 11,000 high school seniors in 1980 (Pollard & O'Hare, 1990) presents aggregate data broken out by "metro" and "nonmetro" student population. This data suggests a fairly gloomy picture of rural education with nonmetro students showing up second best on all measures. When examining the same kind of information at the state level, most of which comes from the upper-Midwestern states, the findings are just the opposite. While the state level studies are more targeted than the national data and thus more useful in terms of informing policy decisions, neither are sufficiently disaggregated to permit us to tie the data to the diverse cultural contexts found in rural America. The information on the performance of rural schools is

presented in three areas: student achievement, success in college and dropout rates.

Student Achievement

The national *Beyond High School* study concludes that metro seniors were more likely to take a curriculum designed to prepare them for college. Two-fifths (42 percent) of metro seniors were enrolled in an academic or college preparatory program, compared with one-third (33 percent) of nonmetro seniors. Metro seniors were also more likely to complete a variety of advanced math and science courses.

Metro seniors scored higher on a variety of tests measuring cognitive skills and abilities.

There is no attempt here to track student enrollment or persistence in post-secondary programs so these data actually tell us little about either student achievement or the adequacy of student preparation.

The studies of student achievement at the state level are generally tied to school size and initiated to build a case either for or against school consolidation. When such studies include influential SES variables, and even when they don't, they tend to confirm a positive effect of small-scale schooling on the achievement of students. For example, the University of Colorado School of Education, in cooperation with the Colorado Department of Education, conducted a study of the results of standardized math and reading tests administered to 102 school districts in Colorado to grades 5, 6, 11, and 12 from 1979 to 1982 (Turner, 1985). The most significant correlation was a high negative correlation between student achievement and the size of the student population of the district, with the

larger districts obtaining up to 25 percentiles less achievement than the smaller districts.

A study by Edington and Gardner (1984), conducted in cooperation with the Montana Office of Public Instruction, compared the achievement results of a series of standardized tests given to Montana students in grades 6 and 11 from 1975-1980. The researchers concluded, "Even though the significant relationships did not account for large amounts of the variances, there are trends throughout the data that lead us to believe that the students in the smaller schools, both the elementary and secondary levels, have higher scores in the cognitive domain than those in the larger schools."

Muse, Ho, and Smith (1985) conducted an extensive survey of one-room schools in the states of Nebraska, South Dakota, and Montana. The researchers followed students into high school after eighth grade graduation and concluded that students from the one-room country schools in those states were as well prepared for entrance into high school both academically and socially as were the students from the larger town and city elementary schools.

Walberg and Fowler (1988), in an "expenditure and size efficiencies" study of the New Jersey public schools, concludes: "Generally, it appears that the smaller the district, the higher the achievement when the SES and per-student expenditures are taken into account." Why should small districts do well? Superintendent and central staff awareness of citizen and parent preferences, the absence of bureaucratic layers and administrative complexity, teacher involvement in decision making, and close home-school relations may account for the apparent efficiency of small districts.

College Success

The *Beyond High School* study concludes that metro seniors were better educated by 1986; 73 percent continued their formal education after high school, compared with only 64 percent of nonmetro seniors.

One should note, however, that this study assumes that adequacy of preparation is the primary determinant of a student's continuing into post-secondary education. Clearly, financial and other considerations enter into this decision. Furthermore, the study does not take into account persistence to graduation or the fact that three-fourths of higher education students do not enter directly from high school nor do they complete their degree in the traditional four years.

The achievement test scores presented from the state data are generally limited to the basic subjects. One could argue that students in schools that do not offer advanced math courses, or physics, or chemistry, or two years of foreign language would not be as well prepared for college work as those who had access to such courses. In specific instances that may be true; however, if scores on the ACT tests are any measure of college preparedness, this appears not to be the case.

Sher (1988) in examining the distribution of ACT scores among the freshman class that entered the University of Nebraska-Lincoln in the autumn of 1985 (the most recent year for which these data are available) found that "... the highest ACT scores were attained by graduates of the three smallest groups of schools. The 282 freshmen from the tiniest high schools (with 24 or fewer in their class) scored an average of 21.7, while an equal number of students from larger schools (with 150-199 in their class) recorded

20.8 average score. The UNL freshmen from the largest high schools (with 250 or more in their class) averaged only 20.7 on the ACT."

In a Montana study to determine if there is a relationship between the rate of college graduation and the size of high school from which students graduate, and to examine the issue of small schools versus large schools in relation to the adequacy of academic preparation for college, Clark (1989) concluded that size of high school attended in Montana does not appear to determine students' subsequent success in college. Academically, students from the smallest high schools did just as well, and in some cases better, than students from the largest high schools.

Attending a small high school in Montana is not a handicap. It appears that students in smaller high schools obtain a more personalized education with a strong basic skills background that enables them to succeed academically in college; in fact, it may be that a strong basic skills background is the most powerful determinant of college success.

Students from the very smallest high schools remained in college and were as likely to graduate from college as were those from the largest high schools.

Dropout Rates

The *Beyond High School* study does not look at dropout data, however, and nationally one in every four students who enrolls in ninth grade drops out before graduation. Here the differences between rural and urban schools are dramatic. (This generalization would, again, not hold true for poor, minority rural communities, e.g., Native American

reservations, rural barrios, Southern black communities, or the hollers of Appalachia.)

A 1980 Guidance Study by the Division of Elementary and Secondary Education in South Dakota reported a one-year dropout rate for the public high schools of 4.8 percent or approximately 19 percent for four years. This is approximately 6 percent below the national average. The four largest schools of the state had an annual dropout rate of 9 percent while the 100 smallest high schools had a rate of 1.7 percent or approximately 7 percent for a four-year period (compared to 25 percent nationally).

Similar figures are available from Nebraska where the annual dropout rate is 7.7 percent. The two largest districts, Lincoln and Omaha, account for 26 percent of all the 112,690 secondary level students enrolled in public, K-12 school systems of the state. However, these two school systems accounted for 52 percent of all dropouts in Nebraska's K-12 districts. More students in the two largest school districts dropped out last year than in all the other 279 K-12 districts combined.

By contrast, there were 93 small rural K-12 systems that had no dropouts at all last year. In fact, Nebraska can boast of 15 entire counties (all rural) in which no secondary students dropped out during 1986-87. The Class II school districts (all of which are small rural K-12 systems) have a record that is nothing short of phenomenal in this regard. For all Class II schools there were only 31 dropouts—an annual dropout rate well under 1 percent (Sher, 1988).

The above studies suggest that given existing quality standards and our assessment

procedures, rural schools appear to be doing pretty well. Certainly size is not necessarily the determining factor for quality. Rural schools have strengths, which if capitalized on, can be made to compensate for perceived weaknesses that result from overlaying an urban/industrial model of schooling on rural society. This brings us to the third issue. How might rural schools be redesigned to be more effective in this period of transition and beyond?

The Schools and Rural Development

Existing data on the quality of rural schools is both conflicting and inadequate. What is certain, however, is that education whether rural or urban is not good enough for the future. An education designed for an industrial society will not serve the nation in good stead as we move into the information/service society. The changes that need to be made, while painful, may hold a silver lining for rural schools and rural communities. In fact, the characteristics of the information age may, if we are creative enough to capitalize on them, be just what is needed to bring about a more vital future for rural America.

Industrial society was characterized by specialization, standardization, and centralization. It is this set of characteristics that, when played out in the education system, resulted in the belief that bigger-is-better. More specialized courses are better than fewer courses, more specialized teachers are better than fewer teachers who are generalists. Specialization has even found its way into the elementary school. The "graded" class structure replaced the multi-grade structure of the one-room country

school. Now the gifted, compensatory, and special need students are removed from the classroom for special programs and an increasing array of special needs continues to appear. Standardization has resulted in a curriculum that, to a large extent, is dictated by statewide book adoptions in Texas and California. Centralization has resulted in a continued push for school consolidation, removing schools from rural communities.

We are moving into a new paradigm. The characteristics of an information society are quite different. Instead of specialists for the assembly line, generalists are needed that understand the big picture for problem solving. Standardization is giving way to diversity; centralization to decentralization. Such characteristics are much more in tune with the inherent characteristics of small scale and rural society where generalists and entrepreneurs are common, not exceptions.

Preparing students for an information society will require the development of a "thinking curriculum," an approach to learning that is much more experiential, one that involves students in information gathering, data analysis, arriving at alternative solutions. Textbooks and workbooks, while useful, if used exclusively provide only a symbolic medium that is drained of vitality and meaning. To recapture the relevance of learning, a style of schooling and classroom organization is needed that engages students far more actively with the natural and human world around them—not just in the context of science or social studies, but as fresh subject matter for artistic expression, mathematical analysis, astronomy, history, and for reading and writing. Because of their small scale and ready access to the environ-

ment, rural schools are able to implement such a program far more easily than large urban schools. Rural schools could lead the way in the restructuring of education. With this redesign, education on a small scale would be seen as the best possible education, not second best.

The information society holds promise for rural communities in another very significant way. In an information society, what one does for a living and where one lives are no longer as tightly connected. If one has access to the information infrastructure, one has a choice of lifestyle. For those who enjoy the rural lifestyle, a growing array of job options will be available, particularly since the majority of new jobs will be created by small entrepreneurs rather than the Fortune 500.

Given this changing context, the Rural Institute of the Mid-continent Regional Educational Laboratory has been piloting a program, Rural Schools and Community Development. The program has four component parts: 1) expanding the mission of the school to embrace community development, 2) using the community as the focus of study, 3) entrepreneurship in education, and 4) using the resources of the school as an incubator for new enterprises.

Expanding the Mission of the School

The public school is often the largest single enterprise in town. In many rural communities it is the last viable social service agency. There are ways to use the resources of the school to make a greater contribution to the ongoing health of the rural community. Involving school and community leadership in a discussion of ways that this might happen is the first step in restructuring the

school community relationship. Expanding the mission of the school to include community development also means the nature of the student body gets redefined. The school of the future is likely to include students from early childhood to senior citizens.

Community as the Focus of Study

The kind of "thinking curriculum" needed for the 21st Century will actively connect the subject matter being studied to the background of the learners. Such a curriculum is relevant to the important issues and tasks in the lives of students. The conduct of economic surveys, writing feature length stories on local businesses that are published in the community newspaper, or collecting data for an Farmer's Home Administration low cost housing loan for retired persons makes the learning process more powerful while developing the understanding and appreciation of how the local economy works. Providing opportunities for young people to become participating/contributing members of the community contributes to self-esteem. What the students learn to know they learn to love. This understanding opens up career possibilities that did not formerly exist. For at least some "getting out of town as soon as possible" is now not the only option, and returning to raise families is a new possibility.

Entrepreneurial Education

Traditionally, schools have been much more effective at teaching students to find jobs than at creating jobs. Students need entrepreneurial skills to enable them to fill the niches in the local economy identified by community studies. Conducting market surveys, developing business plans, and learn-

ing simple accounting procedures are good learning experiences and skills that will last a lifetime.

Schools as Incubators

New enterprises are most vulnerable during the first two or three years of operation. Most rural communities do not have ready access to the technical assistance and resources that have been found to be useful to fledgling businesses. The resources of the school could be used to provide that assistance.

There are themes other than community or economic development around which the restructuring of rural education could begin. Economic development, however, represents the most easily understood and therefore the most saleable. The future of rural communities depends on stemming the out-migration and diversifying the economy. And, while there is no way that the public schools can do the job alone, they represent an important resource present in every rural community that must be a part of a comprehensive rural development strategy.

In summary, rural schools may have been maligned unfairly through the years. The evidence suggests that, perhaps with the exception of rare students with very particular special needs, rural children have been served quite well. With the emergence of the information society, rural schools have the opportunity to be the leaders in redesigning schools for the future. And, if we are wise enough, not only will the education of rural children be improved, the future for rural communities will be brighter as well.

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Looking at Rural Schools and Communities in the 21st Century: The Impact of Changing Demographics and Economics

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My purpose in this paper is to review recent demographic and economic trends and to explore their implications for rural schools and communities. This effort is appropriate because rural schools and communities often are tied together in ways that schools and communities in urban and suburban areas are not. Indeed, during discussions of rural school consolidation, we often hear that without the school the rural community itself would disappear. The connection is valid, although the cause and effect relationship is not always as clear. Many speculate that the rural school disappears only after the rural community itself has ceased to be viable. Whichever direction the causal arrow points, we do know that rural schools and communities are affected by the same social forces. We need to understand those forces and their implications if both rural schools and rural communities are to survive and flourish.

It has become a cliché to write that American public schools are in a period of rapid change. Some people are amazed to find that the more things change in public schools, the more the schools look like the schools of yesterday. American public schools use a calendar that is a vestige from an agricultural era, a core technology rooted in the factory movement and the

industrialization of America in the early twentieth century, an administrative and governance system reminiscent of a bygone era, and an exposed system on which every educated citizen purports to be an expert. Yet, this complex system is expected to meet a broad variety of social needs in a global, information-based economic system and a significantly changing world geopolitical system.

Forces for Change in Public Schools

A number of recent social trends will have important effects on American public schools, including rural schools, over the coming decade. Indeed, these effects already can be seen.

The American population is becoming more diverse and that diversity is likely to accelerate.

After a period of low immigration, the past decade has seen a period of rapid increase in both legal and illegal immigration into the United States. Earlier immigrant groups were heavily dominated by immigrants of European origin, but more recent immigrants are far more likely to be Asian or Hispanic. Recent immigrants tend to be younger than the population at large, have young children, and have larger families.

The proportion of the public school population that is Asian and Hispanic is growing, and public schools are facing larger numbers of immigrant children who are often poor and of limited English proficiency. This phenomenon is increasingly a rural one, as well as an urban and suburban one.

America is also maturing. As the oldest members of the "Baby Boom" generation approach the age of 50, it is clear that on the average we are becoming an older nation. This trend is particularly true in rural America. In 1990, some 17 percent of all residents in nonmetropolitan Illinois counties were 65 years of age or older, compared to 11.7 percent of residents in metropolitan areas. As a result, rural communities have a higher dependent population at a time when they can least afford it.

Rural America is experiencing depopulation, which is one reason that the proportion of elderly residents is increasing. Between 1980 and 1990, 70 of the 74 nonmetropolitan counties in Illinois lost population, with many suffering population losses in excess of 10 percent. The same change is taking place to some extent all across the Midwest. In the economies of many rural counties, the production of foodstuffs is now second to tourism, recreation, and retirement. With the influx of service workers in those industries—many of whom are Asian, Hispanic, African-American, or recent immigrants to the United States—the population has quickly become much more racially, ethnically, linguistically, and culturally diverse. These new arrivals are often young and have children. Yes, indeed, the face of rural schools is changing.

The distribution of income in the United States has shifted greatly since the beginning of the 1980s.

Simply put, since the end of the 1970s, the rich have been getting richer and the poor have been getting poorer in the United States. I will discuss some of the reasons later in this paper. Poverty has been increasing, and it is both an urban and a rural phenomenon. In Illinois in 1990, 13.4 percent of the residents of nonmetropolitan counties were poor, as opposed to 11.3 percent in metropolitan counties. The poverty rate in Southern Illinois is over 15 percent.

The public school clientele is increasingly poor. In 1978, 18 percent of American children under age six came from families in poverty, but by 1990 this percentage had increased to 25 percent and it is still increasing. Children from families in poverty are more likely to suffer from learning problems associated with low birth weight and inadequate prenatal and postnatal health care, from nutrition problems, from inadequate family support, and from problems of domestic violence, neglect, and dysfunctional families.

We see this income disparity in many rural communities, where those associated with management in production agriculture are often fairly affluent, while others are experiencing declining incomes.

Rapid changes in communications technology and continuing advances in fiber optics and other new technologies are revolutionizing the way we conduct our daily lives.

Every day I sit down at my computer in Champaign, Illinois, and engage in instantaneous communication with colleagues across the United State, Canada, and even Australia, some of whom I have never met face-to-face. This same set of communica-

tions advances has had a profound effect on business and industry. We all know that we have the capability to sit at home and trade shares on stock exchanges 24 hours a day in all parts of the world over a computer network.

Rapid changes in computer technology also have changed the way schools operate and provide instruction and have changed the demands on student outcomes and performance. The introduction of computer technology into instruction programs of schools has clear implications for funding for equipment, teacher preparation and education, and professional development. New education demands of high technology workplaces and recent developments from cognitive science are revolutionizing the public school curriculum and instructional approaches.

One positive aspect of these changes has been distance learning for rural schools, but no one should think that this phenomenon has no negative aspects, especially in light of the inability of many rural schools to provide equal educational opportunities. Distance learning may be only a stop-gap measure, and emerging research has pointed out its limitations. As I discuss below, techniques such as distance learning may not prove to be good ways of educating for symbolic analysis.

Possession of intellectual property is becoming more important for economic well-being than possession of land or capital.

U.S. Secretary of Labor Robert B. Reich, in research conducted when he was a Harvard political economist, found that the source of wealth for many people in the upper one-fifth of the income strata was in what he called "symbolic analysis." Republican

analyst Kevin Phillips has found the same phenomenon in his research. Symbolic analysts derive their income from the manipulation of verbal, numerical, and visual symbols. They are highly skilled at this type of work because of the education that they have received.

The education of symbolic analysts begins with learning to read, write, and do calculations, but it does not stop at basic skills and the accumulation of facts. It focuses on building the capacity for abstract and critical thinking, encourages experimentation and risk-taking behavior in learning and in symbolic analytic work, involves discerning cause and effect patterns and seeing connections in complex systems, and requires collaboration and cooperative work with people of different abilities, skills, viewpoints, and specialties. The education of symbolic analysts stresses quality, excellence, and mastery—attributes and dispositions that business and industry also hold in high regard. Symbolic analysis and total quality management are closely related.

A small group of American schools provide education for symbolic analysis, but most do not. Most rural schools fail in this regard. Rural Americans, like all other Americans, must realize that their future depends on investing in and cultivating their intellectual property, not their land or physical capital. Our schools must be prepared to produce symbolic analysts. Not everyone can become a symbolic analyst, but everyone should have the opportunity to experience the type of education that leads to symbolic analysis.

Our economy is more and more affected by a regionalization rather than a globalization of the world economy.

The recent passage of the North American Free Trade Agreement (NAFTA) was not the beginning of the regionalization of the North American economy, but the result of public recognition of a regionalization that had already taken place. The days of "low-skill, high-wage" jobs began to disappear as the world economy became more competitive after 1973 and as the comparative advantage that the U.S. economy had enjoyed since the second World War disappeared. Many decades ago, people who left the farm found economic salvation in high-wage, unionized factory or railroad jobs, but this route is now closed. Similarly, our future cannot lie in low-skill, low-wage jobs. Low-skill, low-wage jobs are no better for the future of rural America than they are for urban America. Rural schools and rural communities must recognize and understand this new reality. As we see greater regionalization of national economies we will see affluent communities side by side with "third world communities," and this situation will be all the more evident in rural areas of the United States. Our only hope is high-skill, high-wage jobs. To be competitive in the North American regional economy, we must invest in the kind of education system that will support such jobs.

Fashioning effective public policy responses to these demographic and economic changes depends in part on gaining a better understanding of political realities.

Widening income disparities in the United States, an increasing poor and non-white school population, and the concentration of political power in the affluent combine to increase the gap between those who pay for public education and those who benefit from public education. This phenomenon has provided the basis for increased calls for vouchers, school choice,

and other forms of privatization of education. This gap has made it more difficult to equalize resources among school districts and to increase funding for public education. It also has tended to place rural schools at a disadvantage in relation to both suburban and urban schools. Rural communities must forge stronger political ties to nonrural interests, which may mean building stronger cultural ties as well.

We must be conscious of the emotional issues that have an impact on our schools.

Crime and violence in public schools will continue to occupy the public mind and will plague public schools over the coming years to the extent that they may overshadow other school issues such as student performance. One effect of this trend will be that affluent families, particularly in large metropolitan areas, will continue to abandon the public schools and to increase segregation in schools by social class.

Meanwhile, particularly in rural communities, we must anticipate resistance to these changes in culture because of perceptions that they are not changes for the better. Such resistance often manifests itself in book-banning, demands for prayers at school functions, and the like. These issues are important for many people, but we should not let them become distractions that keep us from more critical issues.

A Vision of the Future for Public Schools

Clearly, the public school of the future will look markedly different from the schools to which we have become accustomed. Below are some speculations on the form that these differences might take:

1. The public school of the future is likely to be the center of a variety of coordinated social services for children. The school not only will be concerned about the education of children, but also will coordinate the work of a number of public and private agencies providing services to children in areas of social welfare, health, nutrition, family preservation and support, and the like. Rural communities may well form the vanguard in this movement. It is especially important that all social agencies in rural communities join in developing plans for coordinated social services for children. This goal will require unprecedented interagency cooperation and coordination and will mean that many historic barriers will need to be removed.
2. The public school of the future is likely to become a community center linking children, families, and communities. Programs of the public school will expand downward in age to include a wide array of coordinated early childhood services in both the birth to age three and age three to five categories. Likewise, the public school will become a community center for adults and will provide programs for the elderly that parallel those for children. Public schools, public libraries, and public park and recreation programs will be more greatly integrated, possibly resulting in the consolidation of public agencies in these areas. A movement in this direction could be in the future for many rural schools. However, if we wait until the community deteriorates past the point of no return, efforts in this direction may become futile.
3. The curriculum of the public school will become more standardized as decision-making becomes more centralized. The public school curriculum will become more articulated and coordinated with the curriculum of the community college, other institutions of higher education, and the training and education programs of both private sector and public sector organizations and agencies. The influence of the federal government and national organizations will become stronger in the area of curriculum. The role of four-year colleges and universities is not clear. We must develop and sustain the capacity to offer an educational program that will prepare all students for symbolic analysis. The skills used in symbolic analysis are the new "basic skills." I believe that for rural schools and rural communities, strong community colleges and strong intermediate education agencies will become increasingly important.
4. The traditional comprehensive high school will likely disappear. Some influential national groups have called for a certificate of mastery that would be awarded as early as the completion of grade ten, if the student can so qualify. We may see increasing flexibility in how the last two years of high school (as we currently understand them) are structured, with many students completing those years in a community college, a four-year college or university, or in a workplace-based training and education program. Large high schools may be broken up into smaller sub-schools, many of which may resemble "specialty shop" schools. These changes will have a profound effect on the structure

and curriculum of middle and even elementary schools. We may need to rethink regional high schools in rural areas and their relationship to community colleges and four-year institutions of higher education.

5. The responsibility for financing public schools will shift increasingly to the state and federal levels as the importance of public education both to economic growth and development and to realizing national social policy goals becomes clearer to policymakers. What is not clear is (1) whether this trend will give public schools a greater advantage in the competition for resources, or (2) whether it may increase the competition for resources between public schools and other public agencies, such as colleges and universities. Renewed and very sophisticated political advocacy by rural communities and broad political alliances will be important to maintain fiscal support for rural schools.
6. Public schools may be seen as instruments of social policy as they are used to attain goals such as equity and social justice. To the extent that the public schools are involved in such efforts,

public school policymaking will become more contentious and controversial, especially in metropolitan areas where large clusters of affluent families and significant concentrations of poor families live in close approximation. However, as rural communities become more diverse, similar political battles will be waged in these areas as well. What we now see as "urban" school politics soon may appear in rural communities. Likewise, public schools could become battlegrounds in the struggle between corporations focused on capital accumulation and workers interested in income security and increased quality of life.

The late French historian Fernand Braudel felt that the human race was too caught up in the events of daily life to recognize and understand the sweeping trends of history. The trends I have discussed are not so much speculations on the future as they are the recognition of trends that are already with us. We must ask ourselves whether we want to ignore these trends or use them to fashion a better future. The choice is ours.

Better Together: Rural Schools and Rural Communities

Toni Haas

Editors Note: This paper is an excerpt from a panel discussion on rural education at NCREL's Regional Rural Advisory Council Meeting, which took place March 1994 in Galena, Illinois.

I began teaching in 1964 in Lake Benton, a rural school in western Minnesota. In the 30 years since then, I've worked at the state and federal levels helping craft educational policies that give rural kids—like I had been—a fair shake and that recognize the strengths, as well as the weaknesses, of rural communities. A year and a half ago, I left my job with the Mid-continent Regional Educational Laboratory (McREL) because I had hit a wall. I was exhausted and despondent. And I was frustrated, because it seemed to me that as hard as my colleagues and I were working, the best efforts of very talented and well-intentioned people didn't seem to be making any significant difference in real lives of real people in real communities.

I was very lucky. I had saved some money and could live off of that while I caught my breath and figured out what I wanted to do next. For the first weeks, I got very sick. (I had worked steadily for 29 years and apparently getting sick was the only way my German upbringing could allow me some decompression time.) As I recovered, I began to read—first all of the things that had piled up on the "someday I mean to get to that" pile, then more widely.

In some scholarly journal (I think it was *Vanity Fair*), I came across a story about the entertainment wizard, David Geffen. The story rather breathlessly reported—in the way that they do—that in every meeting, Geffen asks his staff, "What are we not letting ourselves know about this?" That's how I'd like to begin with you today, with a discussion of what we aren't letting ourselves know about schooling in rural communities.

What Are We Not Letting Ourselves Know?

The first thing that we are not letting ourselves know is that the furor over education reform is serving important, largely invisible purposes that are not exclusively educational. One purpose is political. We all know that political capital is made in headlines. The darker the news, the more likely it is to rate time on the nightly news or on the front page. Education was discovered by the politicians in the early 1980s. Politicians of every stripe quickly vied to see who could be tougher in education reform, identifying and deploring the current educational system. Conservatives, for example, felt that "straightening out" public education was one way to restore order and security to a world that seemed disorderly, chaotic, and confusing—a situation that required "cleaning up" the liberal excesses of the previous decade.

In addition to politicians, an entire industry has grown up around school improvement and reform. Faster even than the proliferation of lawyers has been the growing number of consultants, professors, and itinerant experts—among them my dear colleagues and myself—all of whom make good livings by helping to spread the word that the system is broken and needs their particular brand of fixing.

The most widely practiced response has been to tighten down. We restore order by insisting on more of what used to work: more hours, more credits, higher standards, more rigor for students and for teachers. We even call it "Back to Basics." This approach is called "first order change"—do more of what got you in trouble in the first place.

Thus, the first thing that we are not letting ourselves know is that some of the angst about schools in this country is being manufactured by people for their own reasons. A corollary is that what is perceived to be "broken" in the education system is coincidentally congruent with what the fixers can do to fix it. This phenomenon is the old "if you give a kid a hammer, everything needs pounding" notion. How does this situation relate to schools and communities? Each September, evidence supporting this contention is found in the Gallup polls showing that parents are increasingly troubled by the state of education in the country, but remain convinced that their local school—the school that they know best—is doing a fine job.

The second thing that we are not letting ourselves know is how crazy it can make us to be living in the middle of a paradigm shift and moving from an industrial to a post-industrial—or information—age. The economy is less local and more global

(a phenomenon that can be observed on every small town main street in this region). Decisions are made from a distance, and individuals feel little influence over the decisions that affect their lives. Even the discussion seems more abstract.

The main sources of education for young people used to be the family, the church, the school, and the community. But when both parents work outside of the home, day care providers and TV fill the gap. When economics in rural areas mean that both parents work away from home, commuting time limits the time and energy that parents have to participate in church, school, and community activities. More working adults mean fewer community members are available to take a casual interest in the upbringing of youngsters, and the influence of church and community can wane. That leaves only the school.

The second thing that we are not letting ourselves know is how much the choices we are making based on economics, over which we have no control, are influencing all of the other areas of our lives. Parents from my generation have a sense of failure, because our children are not guaranteed to do "better" than we have done economically. Rather than worry about glass ceilings, my daughters and my son are trapped by the "sticky floor," working at entry-level jobs with little security and less chance for advancement. They and many others are beginning to rethink what "enough" is and what economic sufficiency means; they are beginning to trade off economic advantage for the value of relationships, family, free time, and civic involvement.

What Do We Know?

We know that schools are not as bad as they have been portrayed (which is not to say that they can't be better), and we know that economic and social choices influence one another. Here are some other things that we know:

We are not going to meet Goals 2000 by the year 2000. What we need to remember is that these goals are not our goals—they are political goals. The ideas are not terrible (they have to be fairly innocuous to get through the political process), but they have little to connect them to real students and real lives in real communities. Rather, they are useful in preparing work forces to operate in organizations that are already out-moded.

We know that schools cannot be the only answer to improving American society, and that the task is a great deal more complicated than increasing America's international economic competitiveness.

We know that the pressure for more standardization—tightening down the system that served the industrial age—is not the first time that education policies have not matched the needs of schools in rural America. Education policy that suited an industrial society—practiced in this country for the past century—has been devastating to rural America. It created schools as extractive industries, investing local property taxes to train young people who left the area and made their contributions elsewhere.

We need to think about making education sustainable in communities rather than a drain on them, because another thing we know is that any improvement in American

society—in how we live together—must begin and focus on communities. We know that children are the future of communities, and therefore communities must find ways to rear their children, to sustain them so that they can sustain communities.

No child can escape his community. He may not like his parents, or the neighbors or the ways of the world. He may groan under the processes of living, and wish he were dead. But he goes on living, and he goes on living in the community. The life of the community flows about him, foul or pure; he swims in it, drinks it, goes to sleep in it, and wakes to the new day to find it still about him. He belongs to it; it nourishes him, or starves him, or poisons him; it gives him the substance of his life. And in the long run it takes its toll of him, and all he is.

The democratic problem in education is not primarily a problem of training children; it is a problem of making a community within which children cannot help growing up to be democratic, intelligent, disciplined to freedom, reverent of the goods of life, and eager to share in the tasks of the age. A school cannot produce this result; nothing but a community can do so (Hart, 1970).

Sustainable Education

According to my well-worn *American Heritage Dictionary*, the word *sustain* means "to keep in existence; maintain; prolong." The second meaning is "to supply with necessities or nourishment; to provide for." Third is "to support from below; keep from falling or sinking."

Across this region, and across the country, communities and schools are creating, inventing sustainable education. Each of these inventions is unique, suited to a particular community. They are described in detail in *Public Schools That Work*, a book that Greg Smith edited and for which I wrote the concluding chapter. Briefly, these approaches follow three models. The first model treats schools as family resource centers that coordinate services to meet the entire range of student and family needs. Kentucky, Texas, Connecticut, New Jersey, and Colorado are among the leaders in this area, and the *Public Schools That Work* provides detailed descriptions of programs in Denver and Leadville, Colorado.

Many—though not all—of the needs served by family resource center schools are the result of hard economic times. The second model of community involvement addresses this issue directly by making economic development an organizing framework for the school. Paul Nachtigal and I began one such effort in South Dakota called Rural Schools and Community Development. Doug Thomas and the Center for School Change in Minnesota have received a substantial grant from the Blandon Foundation to help rural schools become partners in economic development. They are creating student entrepreneurs both to revitalize rural communities and to restructure rural schools. Finally, REAL Enterprises, which Jonathan Sher and Paul DeLargy began in three Southern states, now has members in North and South Carolina and Georgia and provisional members or local sites in Vermont, Ohio, West Virginia, Alabama, Wisconsin, Minnesota, South Dakota, Oklahoma, Wyoming, Oregon, Washington, and Alaska.

In Alabama, Jack Shelton and Robin Lambert operate the Program of Rural Services and Research, which involves 32 rural communities working on community development. They blend the approaches of the Minnesota Center for School Change and REAL Enterprises and focus on "doing well by doing good." They call the work that focuses on economic development "learning to dig our own wells." They have built solar greenhouses, set up organic gardens, and created markets for their produce in urban areas through a network of churches. They also have trained construction crews of both girls and boys and are building new houses and retrofitting old ones to improve rural housing stock. At the same time, they have worked with the Farmers Home Administration (FmHA) to ensure that local people can qualify for low-cost loans to purchase the property that they have created.

The projects that focus on economic development also assume responsibility for teaching young people about economics, and they do so in a very real way, emphasizing how economic decisions affect their lives and the life of their community.

The third model involves schools as partners in community development. In this model, the purpose of the school is to prepare young people to be economically and civically productive citizens and to contribute to the development of the community. It emphasizes both individual and collective benefits. Our cultural environment is no less important to community development than our economic or physical environment, yet many of us live in communities where the cultural endowment has been devalued and stripped away by inattention, competing

priorities, and the seductions of the mass media.

One good way to begin to recapture the cultural endowment of a community is to ask simple questions: What can grandparents do that their grandchildren can't? What do they know that the children don't? The resulting list of lost skills and knowledge becomes the beginning of an effort to redevelop and renew the rich local culture of the area. Community histories, created with written, audio, and video media, can aspire to be more than anecdotal (the richest example is the 20-year history of Foxfire). These histories provide cultural analysis based on information provided to student compilers. Students use photographs for documentary and artistic expression. School/community newspapers that cover local news and serve underserved communities and families that lack other reading materials are, according to the Freedom Foundation, "at the cutting edge" of student journalism. Community Study Centers link communities to public libraries and other information sources (and give young people a very clear message about the importance and joy of learning).

In this model, the community serves as a locus of learning. The community is the context in which learning takes place and is shaped. Community members are coaches and mentors. The community provides opportunity for service, sites for research and analysis, and a fellowship of adults who value and continue learning themselves. The learning community is rich with contact between young people and adults.

In Soldiers Grove, Wisconsin, fourth graders have created and maintain a city park. Nebraska students of Linda Abboud

designed and built a mural in the town park that traces the history of the area from pre-historic times. In Alabama and South Dakota, students are collecting oral histories and creating pageants for public performance. Alabama students write and distribute a newspaper that reports on school and local community news, filling in for the missing town paper.

Characteristics of Sustainable Education Reform

Let me suggest some principles for sustainable education reform. Because such reform suggests a new way to look at change efforts, these principles are tentative. What you learn from your work will add to what we think we know. Here is what we think we know so far:

Sustainable education reform is a process. It builds on the strength and knowledge of local people, giving them the tools to accept responsibility for their future and fate. It requires learning a balance between self-sufficiency and the savvy to create enough space in the existing system to do what you need to do. It also seeks a balance between private gain and public value.

Sustainable education reform is diverse and not generic. It will become manifest in different ways in different communities. The first thing that these grassroots experiments have in common is that they have precious little in common. Each is unique and appears to be successful to the extent that it meets the needs of its unique context, whether that context is on the prairies of western Minnesota or in the Appalachian hollers of Alabama.

Each experiment has at its center an individual or small group of individuals investing enormous amounts of energy. Change needs a champion who can find and mobilize like-minded people. Marty Strange of the Center for Rural Affairs (1992) says, "If it is a good idea, you don't have to sell it. Rather, put your energy into supporting, organizing people who already believe in it."

Sustainable education reform is concrete. It values its local, unique context and considers the community to be a laboratory in which the most rigorous of academic lessons can be learned and evaluated in authentic and public ways. It prepares young people to live and work as adults, giving them opportunities to practice adult ways of working, learning, being responsible, and participating in the community. Based in a real community, it is practical. It recognizes real limits and operates within them.

Sustainable education reform is multi-faceted. It attends to issues of purpose, content, rules, roles, and responsibilities in dynamic, iterative ways that act upon the knowledge that everything is connected to everything else.

Sustainable education reform is inclusive. It involves all members of the community and recognizes each young person as having unlimited and undetermined value and potential. It does not set up organizational

mechanisms to sort children into winners and losers.

Sustainable education reform is rigorous. It is intellectually grounded in research on cognition (how people learn) and instruction (how they are most effectively taught). Learning to learn is as important as learning specific content.

Sustainable education reform is deeply moral. It is driven by a fundamental trust and belief in the capacity of people (young and old) to identify and celebrate local strengths and resources, to identify and solve their problems, and to create a balance between benefits to individual and communities. As Cornelia Flora (1992) says, "It is socially just, environmentally sound and economically viable."

My charge to you is to go about your planning with high hopes and clear visions. Let yourselves know what you know about the beauty, importance, and possibilities for your communities, and figure out ways to help your young people experience the joy of belonging to something bigger than themselves. You will improve the education of all of your citizens as you expand the mission of the school "to keep in existence; maintain; prolong" the life of your community. You will find new and innovative ways "to support from below; keep from falling or sinking" and "to supply with necessities or nourishment; to provide for" your children.

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The "New" Federal and State Education Agenda

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Introduction

The education agenda of the federal and state policy and school improvement communities is now fairly well formed. While debate continues to rage over some of the tactical features of this country's decade-old school reform movement, a political consensus about what ails education and how best to fix it seems to be emerging. Before addressing the agenda itself, however, I want to stress that attaining such a political consensus is what really counts nowadays and that the nature of the political actors involved in this consensus is equally important.

A new set of actors is calling the policy shots. To give some historical perspective, Timor (1989) suggests that the dominance in the 1960s and 1970s of the "old iron triangle," comprising schools of education, state departments of education, and NEA affiliates, has eroded—although it continues to have influence, especially at the state level. Guthrie and Reed (1991) emphasize the importance at the federal level of the "new iron triangle," which comprises education agencies of the executive branch, congressional committees, and interest groups (p. 107). And Spring (1993) argues that "the foundations, teachers unions, and the

corporate sector" (p. 3) represent the "big three" interest groups in the field.

Yet, as helpful as these observations are, they appear to be incomplete in that they do not adequately acknowledge the relatively new and effective activism by state governors and state legislatures. These state-level actors—though not acting alone—are now extremely visible in establishing much of the nation's education agenda. If one subscribes to the adage that agenda-setting is one of the most effective forms of political power, then one can see that this shift in the locus of educational control to state and federal political actors is one of the most profound changes in education—not just in the past decade, but perhaps in the century.

The task is to uncover the agenda being promoted in *these* policy circles, and this task is especially important if we want to understand the forces affecting rural education. From our understanding of this agenda, we can frame a rural school improvement strategy that not only is effective, but also will be viewed favorably.

The Focal Points of the "New" Education Agenda

I have singled out five areas that I believe represent the focal points of the education agenda:

- The restatement and subsequent institutionalization of the national (not federal) interest in education
- The redirection of the school reform movement, Phase I: new, more rigorous accountability
- The redirection of the school reform movement, Phase II: systemic reform of the educational system
- The development of a national educational technology "policy"
- The renewed interest in addressing diversity in public education

This short list contains few surprises, since the issues have been present for some time. Therefore, my use of the term "new" agenda should not be taken literally. What I mean by "new" is that approaches to these five areas suggest a new urgency, a new energy, a new commitment, and, in some cases, a discernible new direction.

Restatement and Institutionalization of National Interest in Education

The formal adoption in 1990 of the now familiar six national education goals by the governors and the President represents a turning point in the national interest in education. Most states soon adopted the six goals as state goals, with a number complementing these national goals with additional

state-specific goals. At the federal level, the six goals became federal policy in the 1991 U.S. Department of Education report *AMERICA 2000: An Education Strategy*. They will be further institutionalized and perhaps even expanded as federal policy with the expected enactment of the Clinton Administration's major education proposal, Goals 2000: Educate America Act,¹ and the Improving America's Schools Act of 1993—the massive amendments to the Elementary and Secondary Education Act.

The institutionalization of the six national education goals as federal policy represents a fundamental expansion of the federal interest in education that historically has centered on the protection of civil rights and training deemed essential for the national welfare (the traditional role argued by Valente (1994)), or the enhancement of educational productivity, the equalization of educational opportunity, and the enhancement of liberty (the characterization of the federal interest preferred by Guthrie and Reed (1991)).

Clearly, one of the core features of the "new" education agenda is the pursuit of the six national education goals. The national interest in education thus has been broadened to include preparing children to come to school ready to learn (goal 1); an increase in high school graduation rates (goal 2); student mastery of content in English, mathematics, science, history, geography, and citizenship (goal 3); world class achievement in science and mathematics (goal 4); the eradication of illiteracy (goal 5); and the establishment of drug-free and safe schools (goal 6).²

¹ Since this paper was written, Goals 2000: Educate America Act became law.

² In the final law, goals were added to ensure professional development for teachers and promote parental participation. A copy of the goals as they appear in the law is attached.

Redirection of the School Reform Movement—Phase I

Certainly one of the core features of the new agenda that would be on just about everyone's short list is creating a more rigorous accountability system. The main tactics being employed to achieve this policy goal are quite familiar and include the following:

- The press for developing voluntary national content standards in the curricular areas specified in goal 3 of the national education standards
- A parallel press for the development of voluntary national student performance standards that are aligned with the content standards—i.e., measurement-driven instruction (MDI)
- A similar emphasis on the development of voluntary national opportunity-to-learn standards that will hold schools responsible for giving students the conditions necessary to achieve proficiency in the content standards
- A similar emphasis on holding schools responsible for giving teachers and administrators the opportunity to acquire skills and competencies necessary to provide meaningful instructional programs in the content areas

Mandates calling for these four rigorous accountability features are included in both the proposed Goals 2000: Educate America Act and the amendments to the Elementary and Secondary Education Act. States will be required to honor the intent of these four features as a condition of eligibility to receive funds from the two legislative proposals. Together, these four approaches represent a major evolution of this country's decades-long struggle to create an effective account-

ability system in the field of education. While implementation issues have yet to be resolved, it seems clear that strong bi-partisan support exists for three of the four features and that this support is not likely to dissipate in the future. The exception is the opportunity-to-learn standards, which are opposed by some political actors, especially the National Governors Association.

Redirection of the School Reform Movement—Phase II

This country has gone through several well-documented phases in its now decade-long efforts to reform education. Emphasis in the early stage was clearly on the use of state mandates, followed in the late 1980s and early 1990s by a focus on restructuring.

Today, support for systemic reform is dominant. As Clume (1991) has observed, advocates of systemic reform argue that the focus should be on moving the entire system of education to higher levels of excellence. The central thesis of the systemic reform movement is that the policies and programs of all parts of the education system must be integrated if meaningful progress is to be achieved. That is, all parts of the system must behave as a system.

Though this basic premise has found widespread agreement, a broad range of proposals (a number of which are incompatible, at least to me) are being pushed under the rubric of systemic reform. This concern notwithstanding, perhaps one of the best short-hand ways to illustrate how the concept is being described is to cite a recent statement of the Education Commission of the States (ECS), *Building a Framework for Education Reform* (1992), which identifies eight high-leverage policy areas that states should consider in pursuing systemic reform:

- Standards/curriculum (e.g., create standards and develop curriculum frameworks and guidelines)
- Assessment/accountability (e.g., develop assessments tied to new standards)
- Governance (e.g., mandate or encourage site-based management or collaborative decision-making, put state and district services in the hands of school councils, and restructure the state education agency)
- Professional development (e.g., align professional development with standards, regulate the training and licensing of teachers, increase initial and continuing certification requirements, require professional development schools, and encourage K-12 and university partnerships)
- Higher education (e.g., engage higher education in reform and form K-12 and university collaboratives)
- Finance (e.g., redesign formulas to focus on excellence as well as equity, expand the definition of equity to include outcomes and opportunities, and shift more budget authority to schools)
- Cross-agency collaboration (e.g., provide incentives for health, social, and youth-serving agencies and schools to collaborate and increase family involvement in schools)
- Diversity/options (e.g., create and support alternative forms of learning and teaching, create more public school choices for parents, create more magnet schools, create "tech-prep" programs)

Many of the features of ECS's conceptualization of systemic reform enjoy widespread support in the national, state, and local policy communities. Moreover, some

of its themes are already being implemented across the country.

Because of the loose way in which *systemic reform* often is defined, the term may become nonfunctional, like its predecessor, *restructuring*. The indiscriminate use of the word restructuring raised the legitimate concern that if restructuring means so many different things to so many different people, then it must mean nothing. As Elmore (1990) observed, "school restructuring has many of the characteristics of what political and organizational theorists call a 'garbage can' concept" (p. 4).

It would be a mistake, however, to dismiss a number of the features of ECS's conceptualization of systemic reform, whether labelled correctly or not. It seems clear that there is strong support for the following:

- A restructuring of the governance of education, such as some form of site-based management, charter schools, the restructuring of local boards, and the restructuring of the role of the state education agency
- Restructuring of the way we prepare and certify teachers and administrators
- More meaningful engagement of postsecondary institutions in the school reform movement
- Greater collaboration between other youth serving agencies and education
- The continued search for parental choice options, such as both intra- and interdistrict choice and vouchers that will withstand constitutional challenges

National Education Technology "Policy" and Plan

The fourth major agenda item is the development of a national education technology "policy" and a plan for its implementation once enacted. With the accelerated pace of the advances in technology, which shows no sign of abating, the creation of an "information superhighway" is at hand.

Title III of the proposed amendments to the Elementary and Secondary Education Act mandates that the U.S. Department of Education create an Office of Educational Technology and further charges the Secretary of Education to develop a cohesive, national, long-range plan to ensure the use of technology to promote achievement of the national education goals (H.R. 3130, p. 150). This pending action by Congress should facilitate the development of cohesive federal and state policies that place education in the middle—not on the sidelines—of the current debates over transmission standards and the funding, acquisition, and use of the tools of transmission.

That these debates are likely to be heated is a given. Of high interest in the field are questions such as who will define the national infrastructure necessary for creating the information superhighway, and where will education fit in these rapidly unfolding developments?

Addressing Diversity in Public Schools

The fifth and final issue on the short list of "new" agenda items is diversity. Two widely recognized aspects of this issue are changes in the racial and ethnic composition of the school-age population and pronounced differences in the socioeconomic status of children and youth. A third aspect of the

diversity issue is the growing recognition that public schools should no longer be viewed as a monolith, but as a minimum of three distinct components: an urban component, a suburban component, and a rural component.

An awareness of the difficulties confronting large urban systems is certainly not new and has for several decades been the subject of a long list of federal and state fiscal measures and programmatic initiatives. But a renewed interest in addressing this issue is clearly apparent.

The unique characteristics of the nation's rural school systems also have been recognized for a long time by states that have supported special fiscal and programmatic initiatives to address rural school problems. At the federal level, rural school set-asides in some of the big-ticket federal formula grants began to appear in the late 1980s. Moreover, rural schools were specially targeted in still other recent federal initiatives. The most prominent is the "Rural Initiative" that provided additional monies to the regional educational laboratories to devote attention to rural education. As I have stated on other occasions, I believe that the best work in rural education is taking place in the regional laboratories.

Additional evidence of this growing awareness of diversity in public education is the decision by major national professional associations to create special rural task forces, rural caucuses, or rural and/or small school committees. Rural interests in a rapidly growing number of states are forming their own separately organized state groups to promote rural education. One of the principal reasons for the movement is the perception that rural, urban, and

suburban schools have such diverse needs that reaching consensus within the existing "umbrella" state interest groups is too difficult (Stephens & Haughey, 1993). A number of the states in NCREL's service region now have formally constituted rural interest groups. In my judgment, Minnesota and Iowa have two of the more outstanding of the 20 or more state organizations in the country.

The growing recognition of diversity in the public schools has contributed to rapid developments in policy analysis tools and techniques that will clearly raise the level of debate about diversity. We now have the ability, for example, to generate a relatively comprehensive socioeconomic, fiscal, student, staffing, and programming profile of every local school district in the nation.

Largely unresolved at this point—but an issue that will surely heat up in the future—is the use that is to be made of these technical advances. That is, to what extent will our vastly expanded ability to understand the uniqueness and sameness of public schools shape federal and state policies that are more equitable, adequate, responsive, and appropriate than they have been in the past?

Likely Consequences for Rural Schools

What are the likely consequences for rural schools of these five big agenda items? Will the rural districts in the NCREL region benefit in meaningful ways or will they experience further hardship as a result of these developments.

Forecasting, of course, is at best highly problematic. Nonetheless, let me share

with you my brief prognostication of what the five agenda items mean.

My overall assessment is that rural education in particular will realize benefits if the scenario I have suggested plays out. That is, though there are several ominous trends that could exacerbate long-term, inherent problems facing rural schools, other developments not only have the potential for neutralizing the negative effects of these negative trends, but also offer new, highly significant positive effects.

Perhaps one useful shorthand way to illustrate why I am guardedly hopeful about the future is to concentrate on the concept of the institutional capacity of rural schools. My working definition of the construct is as follows:

A consideration of the governance, instructional, student, staffing, financial, and community support subsystems, will embrace most of the important indicators or measures of the health and performance of an educational organization.

I will use this construct as a way to organize the following brief defense, which will consist of several lines of argument.

First, the renewed emphasis on creating a more rigorous accountability system that includes content standards and student performance standards will exacerbate long-standing problems facing many rural systems—problems that are inherent in small-scale operations. Moreover, the socioeconomic trends that continue to have an impact on rural America are alone sufficient cause of great concern in many nonmetropolitan areas. Nonetheless, the parallel

push for opportunity-to-learn standards suggests that we are entering a new era in which the accountability of local communities and the state, as well as the local district, can now be more clearly established. If this line of reasoning is valid, then I, for one, welcome the new accountability with open arms.

Similarly, developments noted earlier should not only offset the possible negative consequences of the development of content standards and student performance standards, but should have other benefits as well. Especially noteworthy for me are the benefits discussed below.

The first is the development of a national education technology "policy" that, as suggested earlier, could put education in the middle—not on the sidelines—of the activities that will create the information super-highway. Such a policy will greatly facilitate the use of technology for improving the instructional programming and staffing features of rural schools.

Another benefit is the growing pressure and incentives to engage postsecondary institutions in more meaningful ways in the reform movement. This movement has to be encouraging, especially if it results in the participation of more institutions of higher learning, designing both teacher and staff specialist programs to equip professionals better to achieve a rewarding experience in rural school systems.

Moreover, the tremendous push toward greater collaboration between education and other youth serving agencies, plus the advances being made in technology, should help achieve a goal that has significant long-term benefits for rural systems—the

rural school as the community learning and service center. The potential benefits of this concept for sustaining a strong, healthy educational infrastructure in rural America seem indisputable.

Finally, I would single out the promise for rural school systems of our increased ability to describe diversity in the public schools. We now have the technical ability to test the costs and benefits of using any number of criteria to define a rural system. The lack of a common definition or small number of definitions has long hampered our understanding of the equity, adequacy, responsiveness, and appropriateness of federal and state policies and programs for rural school systems. It has led to pointless charges and countercharges that have resulted in little good. That more sophisticated inquiries of these types will now occur is accepted. Rural systems will be the big winners of these developments.

Concluding Comments

In this paper, I have attempted to do two things. First, I have provided a brief outline of what I believe are the five focal points of the "new" federal and state education agenda that occupies and will continue to occupy the attention and energies of the education profession. My short list, though sufficient to keep most of us busy, does not include other policy issues facing the profession that will also warrant attention. Omitted, for example, was mention of a host of instructional issues, such as ability grouping, graded classes in the early grades, the renewed controversy between the assimilationists and accommodationists concerning the role of public education, and the early stages of the "Christian Fundamentalist Movement." And certainly the debate over

state school finance will have huge consequences for rural systems.

Second, I have observed that the five developments associated with the focal points of this agenda are likely to result in significant benefits to rural schools in the

future. It is true that many foreboding signs have appeared on the horizon for rural schools. Nonetheless, I stand by my prediction that in the years ahead rural interests will witness substantial progress.

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Small Is Necessary: Strengthening Rural Schools

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Editor's Note: This article was excerpted from Rural Schools: On the Road to Reform, published by the Council for Educational Development and Research and the Regional Educational Laboratories in 1992.

The nation's public school system is like a lovingly built stone fence, climbing and dipping across the landscape. As a former education commissioner of a largely rural state once commented, one first notices the large stones in the fence, then the small stones tapped into the spaces between the big ones. Without the small stones, the fence eventually would lose its strength. It would no longer hold together; it would fall.

One notices another detail about this fence of stones. The small stones, the chinks that fill the cracks, are all different—in shape, or color, or size. Each is unique.

So it is with the nation's public school system. It is built of a variety of schools—big and small, urban, suburban, and rural—separate but part of a whole.

In this mosaic, rural schools are sometimes overshadowed by the attention given to urban schools and the growth of suburban schools. The rural schools are an essential part of the nation's education system. They are responsible for educating 6.6 million children and account for more than 22,000 school buildings, about one-fourth of the total school buildings in the country.

The problems of urban schools may be "noisier," but those of rural schools are just as threatening to their communities, and just as discouraging to the futures of their students. Neglect, constant budget cutting, and community upheavals have affected much of rural education for many years.

Rural schools' struggles inevitably affect all of American society. For various reasons, a large percentage of rural students eventually migrate to metropolitan areas. The education these young people receive in the country's more isolated schools forms the base for their ability to succeed as urban dwellers.

Likewise, many teachers and administrators begin their careers in rural schools. Some move on to metropolitan areas with the skills they learned as rural educators. Thus, rural schools serve as incubators for the education and skills of young people and adults who form part of the mainstream of urban life.

Furthermore, just as each small stone in a fence is different from all of the others, no one vision of rural schools exists. A rural student could be attending school on an island off the Atlantic seaboard, or in the middle of a Kansas wheat field, or at a Colorado ski area, or in Mississippi's Delta Region, or on a Montana reservation, or in California mountains that look down on creeping residential development. Schools

in all these areas are rural; they are all different. They all have strengths and needs.

Agreeing on a Definition

If rural schools are not similar, how do you define what they are?

The most common definition comes from the U.S. Bureau of the Census. Its concept of rural is a town or county that has a population of less than 2,500.

While this simplifies the process for deciding what is rural, it also means that rural schools can exist in a metropolitan county, such as Montgomery County, Maryland, on the outskirts of Washington, D.C. Or that there are more students attending schools in the rural areas of New Jersey than in the rural areas of Montana, simply because population density in New Jersey is so much greater.

Rural schools tend to be small, although rural districts may be very large geographically. The percentage of rural schools within states varies greatly, from less than 4 percent in Rhode Island to more than 76 percent in South Dakota.

In nine states, rural schools constitute more than 50 percent of the total. In 30 states they represent at least 30 percent of all schools.

In only two states—Kansas and South Dakota—students enrolled in rural schools make up more than 50 percent of the state's total student population.

An adequate definition of rural schools, admits one long-term writer and researcher on rural education, "does not exist." Once beyond saying that rural is non-urban, says

Paul Nachtigal of the Mid-continent Regional Educational Laboratory in Aurora, Colorado, "There is little else that is generalizable across the rural areas of the country."

For that reason, Nachtigal cautions against using national aggregate data to characterize rural schools. He cites the rural dropout rate as one example of how aggregate data can be misleading. On an overall basis, the rural high school dropout rate is slightly lower than the national rate. Yet, small unified districts in Nebraska have a dropout rate of less than 1 percent. This means that rural school dropout rates in some other place must be very high.

The National Center for Education Statistics, working with the U.S. Bureau of the Census, is preparing new computerized methods for analyzing data by census block. Scheduled for completion in the spring of 1993, this kind of computerized mapping promises to provide a clearer picture of rural school districts.

Common Strengths

Despite their individuality, the nation's rural schools share several common characteristics. Some of these characteristics are legacies of the time when rural schools shaped and dominated education in this country; others emerged from events and situations that stem from an unprecedented pace of change for rural schools. Rural schools are undergoing, say many experts, the most rapid change of any segment of American education.

Rural schools tend to be smaller, more personal settings where nearly everyone is on a first-name basis. About 40 percent of

rural elementary schools enroll fewer than 200 students (compared to only 8 percent of urban schools). Almost three-fourths of rural secondary schools enroll fewer than 400 students. Rural schools' student-teacher ratios are the lowest of all groups of schools.

As Jonathan Sher and other experts on rural education have pointed out, the smaller enrollments create pluses for students, not only in the extra attention students receive, but also in opportunities to participate actively in school affairs. A student not on the playing field probably will be in the stands performing with the band.

Parents and other community members often consider the schools to be their social centers, creating strong bonds among students, teachers, and administrators. Such closeness makes it possible for children and youth in rural schools to have an adult with whom they can have a trusting relationship—an often-cited need among urban students.

Rural schools also are the glue that holds rural communities together. This largely accounts for fierce community resistance to the closing of low-enrollment schools. Take away a community's school and the heart of community life is cut out; give schools leadership roles in developing broader economic opportunities in communities—as will be described later—and they can create greater vitality and viability for rural life.

Except in the very smallest rural high schools, broad course offerings often are just as accessible in rural schools as in larger metropolitan schools. Furthermore, rural settings can provide cooperative and experiential learning opportunities not easily

available in other school settings. For example, a biology laboratory held at the pond down the road or work apprenticeships with local businesses can be natural resources in rural areas.

Many of the most desirable elements of current school reforms and restructuring are especially suitable to rural schools. Site-based management is a mainstay of school organization in rural areas. Both principals and teachers in rural schools indicate in surveys that they believe they are considerably involved in making decisions about such areas as curriculum, discipline, and use of time.

Rural schools are at the forefront of integrating advanced learning technologies with telecommunications, thereby reducing the isolation of their students and providing wider access to curriculum offerings. While urban schools seek to reorganize students and teachers into smaller groups, rural schools already have this advantage.

However...

In many places, rural schools are changing because of the continued migration of families to urban areas, or the encroachment of new problems and demands upon rural schools by metropolitan-area sprawl. These schools struggle either with decline or, in other instances, with newly arrived contemporary problems. Drug abuse and alcoholism among rural students, for example, are approaching rates in large cities.

Economic stress in rural areas is particularly difficult, reducing support for school programs and employment options that might prevent further migration. School facilities in rural areas are in distressing

condition, with 50 percent of current buildings estimated to be sub-standard. (At the extreme, a survey by the Pacific Region Educational Laboratory in Honolulu, Hawaii, found that, in the Pacific Islands it serves, 161 island schools had no water, 218 had no electricity, and 136 islands had no secondary school.)

Administrators report problems with recruiting teachers, and teachers often cite their lack of collegial contact and opportunities for professional growth as reasons for leaving rural areas. This kind of professional isolation can limit their access to new ideas and training—something that could help them not only keep up with their nonrural colleagues, but excel.

Teacher training institutions also neglect the special needs of rural teachers; few have programs directed at preparing teachers for the challenges of rural schools.

As school reform and improvement efforts sweep across policymaking levels, rural schools are being pushed to even greater disadvantage. Federal and state regulations often fail to take into account the special circumstances of rural schools that make meeting minimum requirements difficult for them.

Of the 140 elementary and secondary school programs in the U.S. Department of Education, only a dozen specifically target some or all of their funding to rural schools. State policies tend to focus on reorganization, especially reducing the number of rural districts and supporting the remaining ones through state intermediate units.

In addition, state mandates on alternative assessment, curriculum frameworks, and

restructuring have left rural educators scrambling for the time and resources with which to respond to the new requirements. For example, administrators in rural schools rarely have all of the support personnel required to handle the paperwork that new mandates generate.

As one regional administrator describes the rural education dilemma:

There is no lack of dedication and motivation among rural teachers and administrators; there is a lack of time, money, and in some cases, skills. There is not enough time in the average rural educator's schedule to plan and develop new programs. There is no time to learn about new educational approaches and no one to cover classes should the time become available. There is no money in the rural school budget to hire top-notch staff to develop and carry out high-calibre student programs. There is not enough money to train existing staff either, or even to free them to take advantage of low-cost inservice training opportunities. And money, by itself, will not answer the problem. Rural schools cannot hire and retain staff as easily as schools in other locations. They are far from available labor pools and support systems. They pay less and offer fewer benefits.

Rural educators are working very hard to be among the best. As new expectations for the public school system call for even higher standards, rural schools have even greater needs for support, guidance, collaboration, and leadership so they can do their part in school reform.

The Evolution of a Rural Learning Community

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A Story: Orland, Minnesota

The superintendent of District 200, located in the small community of Orland, Minnesota (a fictitious community), is worried. She has known for a long time that the district needs to find new ways to bring learning resources and opportunities to students. She feels sure that the district's basic programs are sound, but she has a sense that students might not be receiving the breadth or depth in the curriculum necessary for them to prosper as citizens of a rapidly changing society.

Orland is a small town, with a population of about 2,000 people in the immediate area. Minneapolis is two hours away on a good summer day. Orland citizens historically have made their living through farming and farming-support businesses. The community supports education and a small public library. Orland has a grocery store, pharmacy, several banks, and assorted retail shops. Wal-Mart and K-Mart are about an hour away, as are movie theaters and other resources.

The superintendent has been worried about providing some of the courses the state universities now require for admission. She worries about her teachers—both attracting and retaining them—and providing them with opportunities to continue their own learning, which she regards as vital to maintaining the quality of the academic programs in the district. She is concerned

about the general economic development of the community, and what employment students will be able to find once they leave school. She knows that the district has many very capable kids and she worries about their competitive edge in getting into colleges and universities. And, at a less defined but still troubling level, she wonders if the community understands the profound changes taking place in the state and nation and around the world. She hopes that the young people are emerging from their education in Orland ready to become a part of those changes.

After doing some research, the superintendent decides that the district should consider becoming a part of a distance education system. Such a system would be a way to bring teaching and learning resources into the community through the district. It would minimize some of the disadvantages of being small and geographically isolated while retaining the advantages that come with being a small community. After developing a plan for a distance education system for the district, she convinces the board that it's a good plan. Some modest resources are found to implement the plan.

Thanks to the superintendent's efforts, the district establishes a technology-based distance education system, including two classrooms "wired" for audioconferencing, one classroom equipped with two-way inter-

active television capacity, a satellite dish, and several microcomputers with modems and telephone lines that permit users to participate in e-mail and computer conferencing activities. For a small community, the initial costs of acquiring the hardware and software needed for the system are substantial. But the understanding and support of the local telephone company, plus two local businesses, make the purchases possible.

The district experiments with its distance education system for about a year. Courses in advanced foreign languages, previously unavailable to students in the district, are offered. Teachers take professional development courses through the system, joining colleagues in other districts around the state. Students exchange e-mail messages with other students around the world. Orland students also participate in several joint research projects with students from other schools in the state. Students in the eighth-grade class exchange essays with students in a French-speaking school in Quebec.

At the end of the year, the superintendent, her teachers, and the students of Orland are very enthusiastic about using the distance education system. The system is not without a few problems, of course. The equipment doesn't always work the way it should. Scheduling is often a problem. Some parents worry that their children may have access to materials the parents think are questionable. Still, everyone is generally satisfied with and supports the system.

Because Orland is a small community, most residents are aware that the school district is doing something different. Many residents are curious about the distance education system and wonder if they could

participate in some way. As the superintendent works with the system, she becomes convinced that it could be used more broadly than just by the school. After some thought, the superintendent begins to envision a plan that places the distance education system—brought to the community through the district—at the center of a whole new notion: the idea of Orland as a *learning community*. Orland residents have always valued education; why not turn the whole community into a great learning experiment that involves all those in the community who want to participate?

With help from key community leaders, the superintendent introduces the idea to the community. Over the course of a year, things start happening that reflect a commitment to the learning community concept. Among the events that transpire in Orland:

- Working with the county extension agent and the local community college, farmers from around Orland gather one night a week in the school to participate in a live "seminar," using the two-way interactive television classroom. Each week, the farmers can interact with personnel at the local community college, county extension agents, and other farmers throughout the state to discuss new techniques, products, and issues. At first, only a few farmers attend the sessions; by mid-year, the room is full of people. Farming can be a rather isolating profession, which is part of the reason some people choose farming as a way of making a living. But the farmers who attend the weekly sessions find interaction with colleagues and specialists to be interesting, fun, and helpful.

- Several bankers in town find a group of other bankers who regularly participate in a computer "conference" on issues facing banks in small communities. Within six months, the Orland bankers participate regularly and enthusiastically in the conference through their micro-computer hook-up to America Online. One banker says the experience has rejuvenated his interest in his work. Another says she has learned new approaches to solve certain banking problems.
- The local pharmacist speaks passionately about the value of training on new drugs that is available through the distance education system. For years, he had felt increasingly inadequate. He felt he did not have a grasp on the new medications being prescribed by local doctors. The pharmacist believed he could not afford to go to conferences out of town, yet he knew of no other way to keep up with his field. Today, the pharmacist communicates with a group of colleagues through the Internet. He is able to ask questions of the group and get information he could never find on his own.
- It is not easy to find doctors to practice in small communities. However, in the past several years, Orland attracted two young physicians. Now the community is concerned with retaining them. The superintendent and members of the village council believe that medical care in the community could be enhanced through use of the distance education system. They also believe that the young physicians would be more interested in staying in the community because of the availability of the system. Using the system, the doctors are able to connect to one of

the emerging medical conferencing systems, providing them with both continuing education and opportunities to consult with specialists around the country. The isolation that sometimes confronts professionals such as physicians living and serving in rural communities is greatly reduced as Orland connects with the world through the distance education system.

In time, the Orland citizens who use the school district's distance education system begin to "push the envelope," to explore new ways to use the system. The local doctors, for example, learn to transmit patient information electronically to teaching hospitals in larger cities in order to get assistance in diagnosis. They also learn about experiments on a device called a "data glove," which can be used by a physician in a remote setting to send information about a patient. The glove makes it possible to transmit information that normally would be available only through direct physical contact with a patient. Using the glove, doctors can send information hundreds of miles to other physicians, who actually "feel" the patient's condition from afar.

Thus, the distance education system has become a valuable tool for enhancing and supporting the professional responsibilities of members of the community. But that is only a part of the idea of a learning community. Residents have started other activities that truly underscore the concept of expanded learning for all interested residents, regardless of age, interests, or prior educational experience.

Some residents use the distance education system not only to enhance their jobs, but also to pursue ideas with more personal or family connections. For example, the

owner of the gas station in town is interested in history, even though he has no formal training in the discipline. Using "H-Net," a computer conferencing system for history buffs, he can communicate daily with others who are interested in the Civil War. As a result, he has formed long-distance friendships, exchanged reading materials, and discussed ideas.

A parent of one of the elementary students watched her child use a home computer to connect to the district computer and then to databases on the Internet—Usenet, in particular—to find resources about raising bees. The child found information about bees on the Net and was able to connect with people who shared an interest in beekeeping. For as long as she can remember, the mother has been interested in this topic, but found it hard to pursue her interests. Since the child taught her how to join the newsgroup on beekeeping, she has been able to communicate with others around the nation who share her interest in the topic. She feels intellectually stimulated for the first time in a long time. Her interest in her child's educational experience has increased, as has her own desire to continue learning.

A young couple with a newborn child learned of the "parenting" interest group on the Network. The couple, eager to learn and share what they are learning as their child grows, have become active participants in the group. Several times, facing difficult situations with their child, they have consulted their peers on the Net for advice. The Net does not (and should not) replace the family doctor as a first line of consultation on the physical well-being of the child, but it does provide a comforting forum for problem solving and sharing insights about

parenting. Based on the electronic social system established around the topic, the young couple has invited several other couples from the region to get together for a "face-to-face" experience over a picnic. They have formed new friendships that continue today.

Perhaps the most interesting phenomenon of all can be seen in the changing patterns of communication within Orland itself. Slowly, community residents have begun to communicate by e-mail with each other. In a way, this kind of electronic communication may seem strange in a small town like Orland, where people generally communicate face to face. Society is changing, however. Many residents feel that they don't see their neighbors as much lately, that interpersonal communications have decreased. The e-mail system has encouraged people to "talk" to each other again. Perhaps sending messages electronically is safer to those who find it difficult to communicate face to face. Perhaps the system is just a novelty. Whatever the reason, many, many messages are exchanged among the citizens of Orland. Among those messages are a significant number of interchanges between parents and teachers.

As Orland residents access the multitude of information resources in and through the distance education system, something else has started to happen: more residents are talking about the future of Orland. Residents have always been concerned about where the community is headed, but, in the past, few people participated in formal discussions about goals, priorities, and issues. The distance education system makes possible a unique form of interchange about the social and economic future of Orland.

Electronic town meetings are held in which individual citizens are encouraged to post their views on important matters confronting the community. Town leaders seek residents' opinions on a regular basis and use the results to guide decisionmaking about the future of the community.

What makes a community a *learning community*? There are several factors:

- Citizens must feel a need and a desire to learn.
- Information resources must be available from which people can learn.
- A readily available means of communicating among learners must exist.
- Citizens must be willing to share materials and data that might be of interest to others.

Orland is populated by people who care about learning, but, as is true in so many communities, the means to learn what they want, when they want, and in a manner they prefer, were not available. The district's distance education system has provided the stimulus they needed to become a genuine learning community.

Building a Learning Community

The story of Orland, Minnesota, illustrates a phenomenon that is beginning to appear throughout the nation in both large and small communities. Emerging technology capacity is making it possible to realize what has long been only a dream in the minds of many people: a community where citizens are engaged in a lifetime of learning activities. In such communities, the local schools become vital components in the learning community, but the idea of

learning extends far beyond the walls of the school building.

What is involved in building a learning community in a rural town? While communities differ in their resources and "personalities," each community needs to address certain questions in order to create an active and continuously learning population.

What are we trying to accomplish?

The concept of a learning community means different things to different people. One of the first steps a community must take is to determine just what it wants to accomplish in creating this thing called a *learning community*. A town might have at least five goals as a learning community:

1. **All residents should have access to more formal or structured learning opportunities.** Such access may be limited in some towns because of geography—institutions of higher education or other sources of learning experiences may not be readily available. For example, teachers may not have ready access to continuing education opportunities, parents may not have access to courses on parenting, or farmers may find it difficult to attend meetings on new pesticide application procedures. Similarly, students may be limited in the kinds of courses available to them in their schools. Having access to more formal learning experiences thus becomes a high priority for many rural communities.
2. **Residents should have ready access to learning resources beyond formal, structured courses.** For many rural citizens, formal courses or other structured learning experiences—while useful—

may not be what they really need. Rather, what they want is convenient access to information resources—information to answer a question, pursue a personal goal, entertain, or generally inform. Public libraries in many rural communities have limited resources. And, residents often have limited access to cultural events and resources. Ideally, rural citizens should have access to holdings of the Library of Congress, state universities, symphonies, and art museums. They also should have access to National Geographic resources, government documents, a broad range of movies, information about new advances in medical or agricultural research, and news on world affairs.

One characteristic of a learning community is access to the world's information resources, regardless of where a person lives or what time of day a person wants that access. While learning activities include a range of exercises, most people would argue that some key elements in learning are engaging new information, seeing new ways of looking at things, and hearing new arguments about issues. Some people feel overwhelmed by the amount of information they have access to on a daily basis. Yet, in many parts of the nation, the problem is that people cannot get access to the information they want when they want it.

- 3. Residents should have better ways of sharing the resources within the community.** For some, a learning community means finding ways to make local community resources much more available to—and thus used by—residents. Even in the smallest community,

information resources and services often are closely guarded. At best, they are not very well integrated. Some people do not know where to go to find the information they need; others are intimidated by local institutions such as libraries or museums. Some residents do not know how to find important medical information; others do not know how to ask questions about their schools and their children's learning.

One characteristic of learning communities is that residents help each other to learn. Thus, rich information and learning resources in the community are open to all members of that community, and residents help each other to access those resources. This goal sounds simple enough, but often it is not well realized in practice. The larger the community, of course, the more complex is the task of helping all residents learn what they wish—or need—to know. Yet, even in the smallest rural communities, people often do not know what resources are available.

- 4. Residents should explore the possibility of new kinds of industries and businesses for the community.** This goal may not seem relevant to the idea of establishing a learning community, but a second look suggests that it has considerable relevance. The technology systems that make possible new forms of learning communities may also bring about new forms of employment and businesses within rural communities. As the United States continues to develop a substantial part of its economic structure around information processing and management, new kinds of "cottage industries" become possible. More and

more people earn their livelihood by using computers and modems, often living and working considerable distances from their employers. Many new, small companies are being formed around information-age activities. Such companies may well be located in rural communities, as geography and time become less important to the business at hand. Depending on the kind of technology-based system that a community uses for education and learning, that system could well serve as the gateway for new forms of work and productivity.

5. **The community should become part of a larger community, while retaining its unique characteristics.** Many people choose to live in rural communities because of the advantages that accrue to living in such locations. However, many people who make this choice also want to be part of a larger society—to have the opportunity to form relationships with a broad range of people without paying the price of living in a bigger community. For such people, establishing a learning community that extends beyond the geographic boundaries of their physical community is a high priority.

In his book *The Virtual Community*, Howard Rheingold (1993) powerfully portrays the concept of learning communities. After briefly describing activities that he engaged in using a computer-mediated communications system known as the WELL, he observes:

People in virtual communities use words on screen to exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support,

make plans, brainstorm, gossip, feud, fall in love, find friends and lose them, play games, flirt, create a little high art and a lot of idle talk. People in virtual communities do just about everything people do in real life, but we leave our bodies behind. You can't kiss anybody and nobody can punch you in the nose, but a lot can happen within those boundaries. To the millions who have been drawn into it, the richness and vitality of computer-linked cultures is attractive, even addictive.
(p. 3)

Rheingold's description of a virtual community captures in vivid detail the new forms of social engagement being pursued by millions of people. Computer conferences or "newsgroups" are being formed around almost every topic imaginable. People interested in a topic (e.g., cooking, flying, movies, gardening, music, pets, comics, the Grateful Dead, history, etc.) "come together" electronically to share ideas, advice, insights, materials, or whatever they find useful to share. Rheingold gives examples of people who have helped one another with emergency situations using computer networks. He also describes situations in which people who needed a helping hand received it through their computer from people they never met in person. He describes people for whom participation in a virtual community has ended years of isolation and depression.

It is easy to be enthusiastic about virtual communities, for the testimonies of those participating in such communities are persuasive. Yet, no one would argue that virtual communities can or should

replace real communities, or that an addiction to participation in virtual communities is a good thing. But there is little question that, for many people, being involved in a virtual community, perhaps through the technology systems found in the local school, is a stimulating experience.

The learning community established in any small, rural town might encompass all of these goals and more. When designing a learning community—or rather when creating the environment within which a learning community can emerge—it is important to set clear goals and priorities, because it is likely that the learning community will need to evolve in stages. Priorities may help to move the stages along.

Which technology systems can we choose to support our learning community?

It is possible to think of a learning community without a technology system of some kind to support it. For the purposes of this paper, however, let us assume that the rural town wishes to create some kind of technology-based (or technology-enhanced) learning system. What are the choices?

Today, the answer is that there are a lot of choices. Tomorrow, there probably will be more. A district's or community's choice of a technology system will depend on the purposes it is meant to serve, available equipment and services, available resources, and the kinds of relationships that can be developed with local communications companies.

At a minimum, a learning community may best be served by providing residents with access to some form of computer net-

working (what Rheingold calls computer-mediated communications). Such access to a network connection minimally requires a microcomputer, modem, communications software, and, most important, a reliable telephone line. Choices among all these components are many, of course, ranging from very basic hardware and software to "souped-up" versions.

The district or community also will need to select a means of connecting to the Internet or some other information source. For instance, they may subscribe to a commercial service (e.g., CompuServe, Prodigy, America Online) or connect to a network through a local institution such as a college or university. The choice among services will be a function of what the service provides and its cost.

The community also may wish to establish audioconferencing capability, perhaps in the local school or library. An audioconferencing system usually comprises a telephone line and a speaker phone-like device that permits everyone in a moderate-sized room to hear and to speak into a microphone. Using this technology, residents can participate in audioconferences with people anywhere in the world, to learn, to share ideas, to brainstorm, and so on. Some companies provide audioconferencing services, including recording the conference. Telephone companies also may provide such services. Audioconferencing is a relatively low-cost way to facilitate learning and gain access to learning resources well beyond the boundaries of the community.

Some communities have selected two-way interactive television systems as a means of supporting the learning community. Such systems permit participants to see

other participants in connected sites. Courses using two-way interactive systems are becoming more commonplace and can be very effective. The costs for such systems are greater than for audioconferencing, but, depending on what the community wishes to accomplish, videoconferencing can be very important.

Computer-based, audio, and video systems represent the core of most technology-based systems. To this core can be added a variety of features such as fax machines and electronic "chalkboards." Rapidly emerging new technologies also need to be considered, such as:

- *Video on demand systems* that provide access to libraries of video programs at times and places determined by the user
- *Integrated video, audio, and data services* that are provided by combinations of telephone and cable companies
- *Multimedia workstations* for use in local communities
- *Cellular technologies*
- Many new technologies that are still in the planning stages

Getting Started on Building a Rural Learning Community

How can a rural community begin to develop the kind of learning community described above? In many communities, the foundation for such a learning community already exists—the school, which usually is at the heart of the community. People in rural communities often engage in ongoing learning through a variety of means. They have regular contact with their schools.

And, they often participate in informational and learning activities sponsored by county extension units and similar organizations.

However, if members of the community see the value of expanding their learning opportunities in the community, how might they start that expansion? While each community is unique, all may pursue some common procedures or activities to form a strong rural learning community:

- It may be helpful to form a **learning community steering committee**, comprising representatives of the community at large, educators, business people, local telephone or cable companies, and the like. This steering committee might be charged with thinking about the specific needs and resources of the community and guiding the development of a learning community plan.
- Establishing a **learning community plan** is a good way to stimulate the development of an expanded learning community. The plan, coordinated by the steering committee, could spell out the particular kinds of learning opportunities desired by members of the community, inventory the resources available in the community to assist in learning projects, identify external information resources and people that might be of interest to local community members, outline a technology plan to support the learning community, describe the financial resources needed to implement the plan, and identify sources for those financial resources.
- Once a plan has been developed and shared with community members, a **prototype or pilot activities** might be

undertaken to begin to "test" the learning community. For example, a few residents might be given microcomputers and modems (or encouraged to use equipment in the local school). They could be encouraged (and helped) to gain access to data sources through the Internet or a commercial network such as America Online. Or, the district could organize a teleconference for small business owners in the community to link them with small business specialists in the state capital. The point is to start small, rather than trying to implement the entire learning plan at once. By observing these experiments in extended learning, lessons may be learned that will be valuable in expanding the learning community.

- The steering committee can collect **sample activities** from other rural learning communities. Although each rural community is unique and activities that are appropriate in one community may not

be appropriate in another, new ideas and insights can be gained from other's experiences that may help a local community to continue to refine its learning community. Sources of information about other learning communities may include the regional educational laboratory serving the community, the ERIC educational system, the state department of education, or university departments in the state.

Experience suggests that successful learning communities involve citizens in each stage of the process of developing a learning system; charge specific individuals or groups, such as a steering committee, with guiding implementation of the system; create a plan to provide broad oversight in developing the learning community; and, perhaps most important, focus on what people need and want. The activities outlined above provide at least one way to begin to develop a rural learning community.

Technology, Television, and an Out-the-Window Rural Interdisciplinary Curriculum: Or How Thoreau Teaches Social Studies, Language Arts, and Science

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When I began teaching in rural schools over 30 years ago, I couldn't imagine saying this. But today I say to language arts teachers, "Let's become coaches." It's time to let students take charge of their education. We must give students the freedom and opportunity to search for knowledge. Just as in the "real world," a buy-in by students makes for more productive scholars.

Like many schools, our small, rural school (360 K-12 students in one building) is in the process of restructuring. We are struggling with proficiencies, assessments, and student outcomes. But, more important, we are involved in the process of recognizing that human beings are learners by nature. Learning and applying knowledge through action are two of our most fundamental survival instincts. This schoolwide belief helps shift our focus from "how to get students to learn" to questioning "what is keeping students from learning." The difference between "to" and "from" may seem small, but it has produced a world of difference in our instructional methods.

We have come to trust in students' abilities to learn if barriers are removed. And our students are teaching us that learning is

not something that we can do for—or to—them. Rather, learning is a personal phenomenon that is strictly a product of students' actions—it's their responsibility. As a result, we are shifting our role as teachers from presenting demonstrations of knowledge and measuring what students are able to regurgitate on cue to that of coaches and resource people. Our goal is to help students develop the ability to demonstrate proficiency in the outcomes that we established as the basis of our curriculum.

With this basic premise in mind, we have adopted fundamental changes in block scheduling (four 100-minute periods with classes held on alternating days), alternative assessment techniques, interdisciplinary projects, and process-oriented outcomes based on instructional methods. The guiding principle for these changes has been the concept of the student as worker. To sum up the all-too-familiar state of education today, a colleague of mine has said, "School is the place where students go to watch teachers work." A major goal of our efforts is to make sure that this statement does not apply to us!

Our shift to a focus on the "student as worker" has been possible because of two

developments. First, we acquired sufficient technology to support the resource requirements of inquiry-based instruction. Second, we restructured our assessment procedures to encourage multiple-credit, interdisciplinary projects as a significant part of the curriculum. We are moving from text-centered coverage of content toward student-centered demonstration of proficiency as a basis for instruction.

If we consider the student a worker rather than a passive, empty vessel to be filled with information, then we also must define the nature of that "work." To do that, we have borrowed ideas extensively from many sources and have developed a five-step process with which students are constantly involved as they work on multiple-credit, interdisciplinary projects. While none of this process is new or original, we see the real difference in relation to the overall curriculum. Rather than being a secondary aspect of content-based instruction, the presentation of research-based projects is a major part of each student's effort to achieve mastery of the outcomes designed by the curriculum.

We require our students to become information workers. The five-step process that they must follow includes these steps:

- Formulate a set of controlling questions
- Access information
- Manipulate information
- Present/communicate that information in a variety of formats
- Revise or extend the initial question as a result of the work

A sixth step is in the early stages of development. This step involves the creation of "knowledge networks" in which students use the hyper-media capabilities of our computer system to link their work with the work of other students.

With the curriculum's shift in focus has come a shift in the focus of our assessment and evaluation methods. We refer to our methods as the **KDS system—knowledge, disposition, and skills**. Again, this idea is not original. However, it does allow us to focus on *how* work is done rather than just evaluating the final product. The terms "knowledge" and "skills" are self-explanatory and were very much a part of our former system. The term "disposition" describes such factors as self-motivation, self-discipline, time on task, and attention to detail. We believe that it is very important to assess and report how our students go about doing their work as well as the final product of that work. While lessons vary from course to course, KDS provides a common basis for our expectations of how students are to work.

Another aspect of the changes at our school is its effect on the students. The shift to "students as workers" requires a significant change in their perspectives and expectations. We cannot expect students to change just because we have restructured the system. Helping students make the transition from "vessel" to "worker" is an integral part of the change process.

Students know that they are being assessed on *how* they work as well as on *what* they produce. As a result, they are more willing to change. The over-achieving "teacher pleaser" who was adept at "jumping through the hoops" of our old system may not be overjoyed at having to do something

other than follow the teacher. However, many disengaged students "come to life" when given a more active role in their education. The whole process becomes a "real-life" situation.

Where does the teaching of reading and language arts fit in this restructuring process? Let me tell you, communication is everywhere. One of our most successful interdisciplinary studies is a project we call "The Revolutions of the Sixties: The 1760s, 1860s, and 1960s." A key character in this class is Henry David Thoreau. While taking this course, the junior class became inter-

ested in Thoreau's philosophy and lifestyle. They read *Walden* in American Literature and many pursued their interest in science classes through the study of the Walden Pond environment.

This year, several students in the Industrial Arts class have expressed an interest in building a replica of Thoreau's cabin on the shore of Plateau Creek, which runs behind the school. The home economics class plans to "decorate" it, and there is talk of creating a Walden-on-the-Plateau Pond. Now this is student buy-in!

The Changing Educational Needs of the Rural Student

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Editor's Note: This article was developed as a part of a workshop for the regional convention of the Colorado Language Arts Conference in 1991.

The rural student of the 21st century will have very different job situations and opportunities than today's students. Yet, we continue to plan our curriculum and design our schools on the old 1920s and '30s models. It is time to look at what the rural students of tomorrow will need and to gear up for delivery of instruction to meet those needs. Tomorrow's rural students will change jobs at least five times and they probably will hold five different types of jobs. These jobs will undoubtedly be more service related than product related. Therefore, students will need far better communication skills and different skills than they are learning today. Today's English curriculum—with its heavy literature emphasis, practically no composition, and very little speech training—must be revised to provide students with the essential skills described below:

1. *Students will need an understanding of other cultures and other peoples who are fast moving into our country, especially Hispanic and Asian populations. Schools must place a greater emphasis on the literature and history of other countries, especially Third World and Latin American countries. Students must be required to take courses that help them develop an understanding of the value systems and practices of these countries. They must not only know where the Pacific Rim countries are, but how to respect their cultures. A strong foreign language program in Spanish, Japanese, Russian, and Arabic languages is essential. Students should be fluent in Spanish and at least one Pacific Rim language.*
2. *Furthermore, rural students must be required to take a year-long course in intercultural communications, which will develop their expertise in working with people from other countries and cultures and will expand their knowledge of the roles of women and minorities in our society. Many rural students still live in patriarchal families, with women relegated to the role of second-class citizens. They may have met few, if any, minorities and hold very stereotypical views of them. These views hinder communication with minority groups that will play an increasingly important role in our 21st-century economy.*
3. *Students must have access to classes in communication skills that use high technology for delivery. Students should be able to use a word processor and write*

fluently and accurately with it. They should learn how to compose business-type pieces of writing with ease and expertise. They need to have a class in public speaking that develops skills in speaking before large and small groups in both formal and informal settings.

4. *Students need classes in the development of interpersonal relationships.* In a society where the traditional nuclear family often no longer exists, this class is already needed urgently. But the mobility of society of the next century demands that students learn how to adjust to changing lifestyles and cope with stressful situations.
5. *Students in rural areas need to study changing industrial technologies, especially computer management and production.* These technologies not only affect how farms and ranches will be operated, they will be the focus of the workplace away from the farm.
6. *Students who stay in cattle production or farming must learn new methods and management techniques.* The old ways are not relevant now; they will be even less so in the next decade and next century.
7. *Students need to learn about different lifestyles.* Today, families eat fewer than 40 percent of their meals together. Students need to learn how to keep their family members together and communicating even though they are on-the-go all of the time. Today's rural teenagers often own their own car by the time they are out of high school. As a result, they spend less time at home, are less dependent on family members, and have less communication with their

families. It is critical for these teenagers to learn ways to build family unity in spite of changing lifestyles.

8. *Today's rural students need courses in how to learn, how to read faster and more critically, how to think logically and critically, and how to view television with a critical mind.* Courses to develop these skills should replace some of our traditional curriculum. For instance, such courses could replace repetitive courses of literature, grammar and composition, and elective classes. Students can learn faster if they—and we—put our minds to it. Some classes could be organized into four-week mini-courses or units to speed up instruction. Year-long courses could cover composition and the study of literature (as described above).
9. *Students will need to have a strong background in mathematical and scientific concepts, but with less emphasis on skill and drill.* Telecommunication delivery may have to be used in rural settings if there are not enough qualified teachers to deliver courses in these subjects.

Rural schools should look at restructuring the teaching day into a longer one and at extending the school year. Students can learn more than we expect of them today. They can learn faster and achieve more if our expectations for them are greater. Rural schools are the perfect place to teach for the future. But we have to be willing to think about the future as we design education for rural America.

How do rural communities begin to make the changes suggested here? First,

they must become aware of the future needs of their students, perhaps by bringing in outside experts for community and board of education meetings. They could use telecommunication systems to deliver information to community leaders. Or they could offer evening classes at the local school for board of education members and other community people.

Rural school must reeducate students about their future needs. Students need better counseling. If a school has no counselor, students should be able to call on the expertise of the administrator or teachers; these people must be knowledgeable, too. They need to attend conferences and belong to professional organizations. They need to read the journals of these organizations for ideas about the needs of the future. An institutional membership to several organizations can provide teachers with access to journals that they feel they cannot afford.

Each rural school must form a task force to study the future demands of the commu-

nity and its members. This group must explore students' job prospects for the future. They must look objectively at whether students can continue to live in the same community all of their lives. And they must be aware of the opportunities for students outside of the community. This task may be the hardest of all since most rural folk do not want young people to leave their community for economic reasons.

Finally, rural schools must take a good, hard look at the communication and math skills they are teaching today. They must decide if and how courses and objectives in the curriculum need to be updated. Then they must form a committee to improve instruction.

The next 15 years will be critical in rural American education. If we are not willing to consider making changes, we may relegate rural students to a second-class life instead of providing them with access to an exciting, productive 21st century. What we do in these years will determine their fate.

Natural Metaphors of Change for Sustainable Rural School Communities

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As educators across the nation address important restructuring and shared-decision-making questions, it's necessary for rural schools to examine what unique niche we inhabit in this arena of change. By defining our uniqueness, isolating our strengths, and building natural metaphors of change, we'll be better prepared to wear the gloves that actually fit for each of our particular rural situations. Furthermore, this self-examination will clarify and assist our drive for sustainability in our schools and communities.

I recently attended a unique three-day conference designed to foster collaborative site-based management efforts in Wisconsin. A "first wave" of 22 Wisconsin districts—each represented by parents, support staff, administrators, teachers, and school board members—was guided by W.P. Dolan and Associates from Kansas City, labor and management consultants, as we focused our restructuring efforts. Most of the representatives were from medium and large urban districts. However, several districts with

student populations of less than 750 in K-12 were represented, including my own district.

As I listened to Dr. Pat Dolan, the labor/management consultant, lead us through several layers of organizational theory, self-examination, and strategy-making, it became clear to me that filtering this information through the screen of sustainable rural communities was essential to establishing a precise "fit" for my district tucked away in the hills of southwest Wisconsin.

Our rural schools have several unique filters that I'd like to share with you.

Rural Communities Are Intrinsically Decentralized

In an era when business is downsizing and decentralized management structures are spreading throughout the private and public sectors, we need to remind ourselves that rural communities, by definition, contain essential decentralized characteristics.

The human dimension is often lost in larger communities. A place where neighbors are strangers for years is as alien to us in Crawford County as leaving the back door unlocked is for people in Chicago. The size of the informal networks of rural areas is ripe for authentic educational restructuring. To get there from here is very possi-

ble because of our ruralness. And those of us making efforts to build sustainability in these rural communities are even closer to the heart of these restructuring issues.

An Integrated Rural Community Is a Powerful Force

Many rural districts remain top-driven, authoritarian, one- or two-person, decision-driven structures. This state of affairs is the existing apparatus. However, it is where we begin, not where we end.

When we move and surround a restructuring effort with genuine community support, then our rural character becomes a tremendous lift—an immeasurable asset! If our goal is to build sustainable rural schools that support and mutually enhance the rural soil they spring from, then our restructuring efforts must enlist every key community element in its core restructuring team.

Natural Metaphors Remain Close to Our Daily Lives

We need an ecologically accurate model to drive our restructuring efforts. Current metaphors of change, such as pyramids and continuums, are mechanistic. They are lifeless, man-made sorts of things that are one-dimensional and often unreflective of the real ways that organizations work. Though they may reflect the current system well enough, the visionary goal of our efforts must metaphorically mirror a living system.

"It's a Tree!"

The theme of my article in *Country Teacher*, entitled "Cooperative Ecology," was that natural metaphors reflect the social systems of human ecology, be it a classroom,

school, or the entire district! Dr. Dolan, while explaining his feeling for organizational change in an improvisational moment, declared, "It's not a tinkertoy. It's a tulip, it's a tree. . . . If you touch it in one spot, it affects other areas."

I would like to amplify this statement because we live in rich natural areas where these metaphors are close to us, our children, and our sustainable community vision. And though various living systems can be used as metaphors for organizational change, I've chosen a tree as my metaphor in honor of the rising ridge of red oak, birch, and white pine outside my window.

An organization actually is mirrored in the process of a tree rather than, say, in a hierarchical redundancy of a pyramid. Stay with me as I extrapolate these natural processes onto the human organizational process of schools.

- *Concept:* A tree has roots. *Translation:* Every school site is rooted in the soil of neighborhood, small village, or rural scene. To deny your roots is to deny the ground that supports and nurtures you. Never lose sight of what makes your place special. Furthermore, roots bring the nourishment to the tree. In management terms, it is the "point of delivery" to the customer.
- *Concept:* A tree needs nutrients, which are transported from these root systems throughout the living wood and leaf cells. *Translation:* Without the active introduction of community, parents, and students into all levels of the system, the system will become a shell of its potentially healthy self.

- **Concept:** Each species of tree grows in a unique habitat and climate. **Translation:** School districts can only thrive by interacting with the local, regional, and state climate. Our sense of place is vital to our ability to work together. It is often the unifying factor that propels the good of the whole beyond individual interests. We need to remind ourselves every once in a while who we are and where we're going, and especially how our unique resources can assist this movement.
- **Concept:** The central part of a tree—the old wood cells—creates the support, strength, and character of the entire structure. It gives form to the tree. **Translation:** What used to be viewed as the top of the hierarchical model of management can now be viewed as the core of the tree. The board, administration, and union leadership all have a role in establishing the form, providing the strength, and determining the direction of growth.
- **Concept:** The living energy of a tree is contained in the cambium, which is at the exterior of the tree, protected by bark. It also is found in the greenery through the process of photosynthesis—the single most important chemical reaction on earth. **Translation:** When one views a tree from a distance, it appears to be a living entity. However, when we examine it more closely, we learn that a relatively narrow band called the cambium contains the living wood cells, which are

supplied daily with nutrients from the root system. In our model, these nutrients are the questions that are asked continually in any healthy decentralized system: *How are we doing? Where are we going? What are the obstacles? Are we listening?*

In summary, the tree metaphor is powerful because it reminds us that any site-based restructuring strategy must be targeted on the singular belief that *the system learns together . . . like a tree grows as one*. The tough work and learning has to happen at all levels, in all parts of the living system!

Dr. Dolan reminded me, "Rural communities are not yet uprooted." We sometimes forget what gifts we live with every day. The warm nod of our neighbors, the 10-minute Fourth of July parades that create memories for a lifetime, and the sharing of garden produce along the gravel back roads. As we become more involved in this national movement of educational renovation, we need to bring to our neighbors and community members the knowledge that our rural place, our rural ethic, is a powerful, unifying contributor to this restructuring movement.

Finally, I encourage you to create your own natural metaphors to fit your home, your school, and your community. I agree wholeheartedly with Dr. Dolan's assertion that, "We need metaphors that keep growing with us."

Why Rural Education Has Not Received its "Fair Share" of the Funding— And What to Do About It

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Editors Note: This paper was originally presented as a speech at the 1987 National Rural and Small Schools Consortium Conference in Arlington, Virginia. It was later published in the Journal of Rural and Small Schools, 2(2), 31–37.

The first question I would like to address is why rural schools don't get their fair share of education funding. It seems unnecessary to document the fact that rural education has been poorly funded and treated unfairly in the distribution of our nation's public resources. You all are only too aware of this fact when you prepare your budgets.

Maybe the easiest way of describing the problem is to say that if it's true that money is the root of all evil, then rural education is well on the road to sainthood!

I would like to offer you the easiest answer to the funding question first, then share with you all of the other reasons why we don't get a fair share, and finally make some suggestions about what to do about it.

The easy answer is that rural schools, rural people, and rural communities are victims of discrimination. Saying that helps us, as rural educators, feel like people who have

been wronged and that carries a certain moral superiority with it. It's almost noble to be victims of terrible discrimination by local governments and tight-fisted taxpayers, by state legislatures and state departments of education, and by the federal government. And, there is a real element of truth here: rural schools have been discriminated against.

It certainly is true that along with racism and sexism there is another "ism" we need to worry about: "placism." Placism is discrimination based upon where people happen to live. Such discrimination, even when inadvertent, has had very negative effects on rural communities and rural schools. But I think it is too easy to say that the whole reason why rural schools don't get their fair share is that there is some kind of conspiracy—as evidenced by this pervasive discrimination—against rural schools and rural people. I'd like to suggest that, along with discrimination, there are nine other reasons—equally important reasons in my mind—as to why rural schools don't get their fair share.

Rural Education Is Not a Priority

The second most important reason rural schools don't get their fair share is because

schools in general and rural schools in particular simply are not a national priority. Far more rhetoric than resources are heaped upon education by the federal government. Remember that nationwide, the federal government contributes less than 10 percent of the money used to pay for our nation's schools. The federal government may declare that mediocre education is the reason we're a "nation at risk"—but that same government has "risked" little of its resources to overcome mediocrity. Education is not where the money goes when the United States Congress makes decisions about what's most important. That fact is so obvious that we sometimes forget it. But, rural education will not garner a greater share of the federal budget until we're willing to address the larger budget issues.

I saw a calculation that the military spends more money in one day than the federal government spends on educating rural children all year. That says something unfortunate about our national priorities. Citing another example, the U.S. Department of Education created a \$4 million fund to sponsor rural education research, but hold that applause, because this rural money represents far less than the federal government will spend this week safeguarding foreign ships in the Persian Gulf.

There's something fundamentally wrong with these national priorities. But that's how it works. Until we're willing, as individuals and as a group, to publicly and forcefully criticize such incorrect national priorities and demand that they be rearranged, education as a whole will not get its fair share. Consequently, rural education can't expect a big slice of an already much too small pie.

Rural Realities

Another reason why we don't get our fair share has to do with the realities of rural life. One of the most important realities is the continuing tragedy of rural poverty. To the extent that we rely on local taxes and property wealth to sustain our schools, most rural schools will lag behind financially. Never has that been more apparent than in areas hit by the most recent farm crisis. There simply is not enough local property wealth (and disposable income) to ensure that rural kids have the resources to reach their full potential. A system that allows the education of rural children to depend on where they happen to live and how wealthy their neighbors are is not a system that reflects a sense of fairness. It is not right that a child who is "clever enough" to have been born in Scarsdale, New York, is virtually guaranteed to have a far better and more lavishly financed education than one born the same hour of the same day in Alligator, Mississippi. It is not right that rural schools must suffer because rural communities, in general, are burdened by a legacy of poverty.

One idea worth remembering in this context is the idea of playing "catch-up." I've noticed in recent years that if you look at state and federal allocations formulae, you can no longer argue that rural schools are being denied their fair share of this year's allocation. That's a change from ten years ago, but increasingly (particularly at the state level) rural schools are getting what could be construed as a fair share of the available dollars.

The problem is that such a perspective is completely a-historical. It perpetuates the lie that school systems and their students start from the same place. It also perpetuates

the lie that if you give everyone an equal amount, they're all going to progress in a fairly equal way throughout their schooling. What this perspective neglects is the legacy of poverty in rural communities. Everybody getting "the same" is fair only if everybody started off at the same place. That's not the situation in rural education. So, getting a "fair" amount now actually is not fair at all. Getting "too much" money into rural schools would be closer to being fair because it would allow some of the requisite catching up to occur.

Equality and Fairness

Another reason rural schools and rural children don't get their fair share is because of some pretty simplistic notions of what "equality" and "fairness" are all about. For example, funding formulae allocated on a per capita basis are inherently unfair and discriminatory against rural communities.

Imagine a per capita allocation from the legislature through which every student is going to get \$10.00 for program "X." In a city with 100,000 students enrolled, that means the school system is going to receive \$1 million to implement its program. Even in today's economy, \$1 million is a significant sum of money with which to operate an educational program. Think, however, of the rural school system with only 100 kids. They'll only get \$1,000—a sum too small to hire anyone or to effectively implement program X. What you can do with \$1 million and what you can do with \$1,000 are strikingly different. The per capita funding bias in federal and state funding formulae means that rural school systems rarely even get the "critical mass" of funding necessary to take effective action. Getting \$1,000

toward an instructional computer system doesn't mean anything. Getting \$1,000 toward hiring a resource teacher doesn't mean anything. Yet our policymakers blithely act upon the simplistic notion that if we're spending \$10 per pupil everywhere, we've achieved absolute fairness.

We also see this problem when we look at rural special education and at other areas where kids have special needs that require more money than might otherwise need to be spent. In such cases, giving equal dollars is not fair; it is, in fact, the antithesis of fair.

Overburdened and Understaffed

The fifth reason rural schools have not gotten their fair share is that rural administrators and rural teachers are overburdened and rural school systems are understaffed. This is particularly relevant in relation to non-formula competitive funding—whether from the state, the federal government, or private foundations. In most rural districts, administrators and teachers are so wrapped up in the day-to-day business of education that no one has the time to research, write, submit, and lobby for the kinds of extensive proposals often required.

Most metropolitan school systems have a staff of "development" people whose job it is to find special funding and bring it home. It's an extraordinary rural school system that can afford to have even a portion of one person's time devoted to finding special grant programs and writing competitive applications. It's a classic example of the cliches that "it takes money to make money," "thems that got shall get," and "the rich get richer."

The Price Is Too High

All of the previous reasons have a common characteristic: they're someone else's fault. There's one more reason in this group. Put simply, the price of money is often too high for rural schools. Nowhere is that clearer than in the case of capital improvements. Rural America has a long-standing, nasty, little secret: the price of getting a new building, getting an upgraded facility, or making sure that students in rural areas have a physical environment people could be proud of has often been to close the local school and consolidate. If you're willing to consolidate and build a big school then, magically, money is available in most states to help you. If you want to renovate an existing small school or add to it or make other kinds of major capital improvements, the external money seems to vanish.

The companion "pact with the devil" is that if rural schools don't complain and don't demand too much, then the state won't come in, close down their schools, and shut down their districts. That's not fair. It's not fair to hold rural students for ransom in such a political struggle for the control of education. However, it has happened over and over and over again. Consequently, rural educators often don't tap every possible funding source because they have learned that the price of some money—what has to be paid in return—is far too high.

I recently heard a story that sums up this whole problem. A farmer driving his truck with a cow in the back got sideswiped. The cow flew off the back of the truck in one direction and the farmer flew out in the other direction. Since the farmer knew the other driver was at fault and since he was injured, he sued for damages. In the court-

room, the defense attorney demanded of the farmer, "Isn't it true that you told the state trooper investigating this accident that you were just fine?" The farmer said, "Well, there's an explanation . . ." And the attorney said, "I don't want to hear your explanations, just answer the question: Isn't it true, farmer, that you said you were just fine?" And he said, "Well yes, that's true but, Judge, may I please explain?" Well, the Judge took pity on him and gave him permission.

So, the farmer described the scene. The cow went one way, he went the other way. When the trooper got to the scene, he saw that the cow was injured, took his pistol, and put a bullet through its head, killing it on the spot. Then the trooper came over to the farmer—pistol still drawn—and said, "I just can't bear to see anything suffer . . . how are you?" To which the farmer replied, "I'm just fine!"

It seems to me that rural schools often are caught in a similar position: with a governmental gun to their head, forced to say that they're "just fine," because if they said anything different, the price would be just too high.

We Don't Demand Our Fair Share

Still, it's too easy to shift the blame entirely onto other people, too easy to imagine a conspiracy of other people damaging rural interests, inadvertently or malevolently.

We must finally acknowledge that part of the reason why rural schools don't get their fair share of funding can be found within us and within our rural colleagues all around the country. We're also responsible

for this problem. One of the biggest reasons we don't receive our fair share of funding is that we have never, ever demanded our fair share. Not once. Never. In fact, in keeping with our upbringing, in keeping with what our mommas taught us was the polite, nice way to act in this world, we don't demand anything. Unfortunately, because we don't demand it, we don't get it. The simple political truth is that we ask too little, we're perfectly willing to accept too little, and we sell out too cheaply.

I've been to a fair number of rural conferences over the years and, almost without exception, a state commissioner (or a legislator or somebody from the U.S. Department of Education) will be there. These "leaders" —who do control significant resources—will say some reassuring words about rural education, will flatter us, and perhaps even throw some tidbit in our direction. For example, they'll tell us they've appointed a task force to review the current situation or that they're going to allocate 1/100 of 1 percent of their budget to some special rural program. Instead of being offended at being thrown a tidbit, instead of demanding our fair share, what do we actually do? We roll over. We're delighted. We give them standing ovations simply because they were willing to speak with us. Their performance is shameful—and so is our own.

Our job as advocates for rural children and rural schools is not to be awestruck by the people who have power and money. Our job is to bring home the bacon. Our job is to deliver the goods to our constituency: to our rural communities and children. We have done a poor, poor job of bringing home the bacon. One reason is that we've

always been willing to swoon at any kind of attention we get from state or federal policymakers, and to be delighted with any concessions we receive.

When "bigshots" are in the same room, we seem to forget that we represent two-thirds of all school systems in the United States, one-third of all students in the United States, and more than one-third of all the teachers in the United States. We don't ever behave like those things are true. We act like a nickel and dime constituency and then we're stunned that all we get are nickels and dimes!

Politicians and other "leaders" have one central role: the allocation of scarce resources among competing interests. They distribute scarce resources among competing interests, but we don't compete. We refuse to compete. We seem to expect that out of the goodness of their hearts and out of an overwhelming empathy with our needs they'll simply hand us the resources we want.

That's not how it works. We can no longer afford to sit back and expect that the resources we want will magically float down to us (like manna from Heaven). We can no longer afford to give politicians and policymakers the message that we're so insecure, so self-effacing, and such wimpy advocates for rural children that throwing us tidbits is good enough for the likes of us. If we demand next to nothing, next to nothing is precisely what we'll continue to get.

Lack of Good Ideas

Another reason we don't get our fair share of funding is the existence of a remarkable paucity of good ideas in rural education. When most rural school systems have

gotten their act together enough to ask for something, what they ask for is terribly limited, not just in a dollar sense but also in terms of its educational vision. We rarely make a compelling case.

I've had the unfortunate distinction of sitting on too many panels at the state level, at the federal level, or at foundations. I've reviewed proposals submitted by those few rural school systems with enough gumption to submit a proposal at all. Sadly, the overwhelming majority of them are lame. They're not good proposals. They're not based on solid research or creative, good ideas. They demonstrate an appalling lack of vision about what rural education could be and a disconcerting tendency for rural systems to say that what we really want is "more of the same." Just give us more of the same and we'll be happy. This is not a compelling political argument. Until we start clamoring for resources that will creatively address our fundamental problems, not much money is going to flow in our direction.

An Absence of Effective Organizing

The final two reasons why we don't receive our fair share are related. The first is that the rural "community" has been notoriously poor at organizing around any issue other than agricultural subsidies. Yet, this fact presents a hopeful lesson. The amazing power of America's farmers—at least the larger farmers—to organize and get billions upon billions of dollars in agricultural subsidies tells me that rural people do not have some genetic defect that renders them incapable of coming together in order to advance their common interests.

However, the farmers' lesson has been lost on rural educators. We don't bother to organize around our own common interests. We cherish our rivalries with other local districts and our isolation from other rural interest groups. We labor under the delusion that a rural district in southern Indiana has little in common with a rural district in southern Illinois. We seem to have the attitude that the rural education realities in Alaska and Mississippi and Vermont aren't worth organizing around because they have no common ground. It's rubbish. All we're doing is shooting ourselves in the foot—or more precisely, we're shooting ourselves in the wallet! Our unwillingness and inability to organize the rural education constituency is a continuing shame. It also is killing us politically. The blame rests squarely on our own shoulders for not taking the initiative and responsibility for organizing ourselves.

Avoiding Our Allies

The final reason is an extension of the previous point. Not only have we been unorganized, but we also have scrupulously avoided joining forces with other groups who could serve as our allies. We have not bothered to identify who our political allies might be, nor tried to unite with them in any coherent, comprehensive, consistent way.

We have two principal groups of potential allies: the organized rural interests from the Farm Bureau to the Rural Coalition and the myriad of education lobbies from the teachers organizations through the National School Boards Association. Yet, we have not united in any serious way with either of these two. By choosing to go it alone, we have paid the price. Worse, the children

we're supposed to help and the communities were supposed to represent have had to pay the price for our unwillingness to figure out who our political allies are, join forces with them, and demand our fair share.

What to Do About It: The Three "V's"

We haven't been very clever about figuring out how to get a fair share of the nation's money into our rural schools. However, this situation need not be the permanent state of affairs. You can do lots of things at the local level, at the state level, and at the national level to remedy this situation. The first and most direct strategy is to think about each of the reasons why we don't get our fair share of the funding—and then figure out what the antidote to each one of those might be. If per capita funding is a problem, then we need to work toward a funding formula based upon need or one that provides a minimum level of resources no matter how small a school or district might be. If the problem is that we have allowed politicians to get away with throwing us crumbs, then the answer is not to allow that, to demand more and keep the heat on until we've received reasonable concessions in response to those demands.

What it boils down to, however, are the three "V's." The first "V" is vision. More than anything else, rural education lacks vision—of its own worth, its own contributions, its own goals—a vision of its own potential to foster educational excellence and, finally, a vision of its role as a partner in rural community development.

What rural education needs is not simply more dollars. What we need are better ideas about how to spend the resources we

have. We need more good ideas and a clearer vision of what uniquely rural paths to educational excellence might look like.

Life is full of contradictions and here is one of them: while it is true that rural education proposals often are far from impressive, it also is true that a few of the very best ideas in American education have their roots, and their fullest development, in rural communities. Rural schools thus live with the contradiction of implementing, side-by-side, some of the worst ideas you can imagine and some of the best.

Foxfire is an idea that rural education ought to be proud of. It's a program that American education as a whole ought to be proud of. We ought not be proud of how little it's been replicated. Still, in terms of an idea that makes sense for rural communities and schools and a vision of what rural education should be, Foxfire brilliantly illuminates one path to rural educational excellence. The same path isn't right for every individual or for every rural school. The rural world has multiple realities and, therefore, needs multiple paths to educational excellence. Foxfire represents one such path.

For several years, Paul DeLargy and I have been working on the idea of rural school-based enterprises. This program attempts to link rural education and rural economic development through student entrepreneurship. We help rural schools to become small business incubators. We encourage the combination of classroom work in entrepreneurship and small business management with hands-on experience actually running honest-to-goodness businesses (not live projects, simulations, or pretend businesses). These school-based

enterprises represent another uniquely rural path to educational excellence.

We need to develop more rural visions of educational excellence and then promote their effective dissemination. Interestingly, many of the "innovative" educational ideas around the country have their roots in rural communities. It was with great amusement that I visited several so-called "lighthouse schools" in metropolitan areas and discovered why they were being hailed as such progressive institutions. They were being hailed for practices like cross-age groupings, individualized instruction, using the community as a learning resource, and mainstreaming mildly handicapped children. I said to myself, "These are great ideas, but haven't I seen them implemented somewhere before?" Another contradiction in this world is the extent to which the same ideas and programs are applauded when they're done in metropolitan districts, but denounced as old-fashioned and archaic when they're done in rural communities.

We have a foundation of good ideas upon which to build a cohesive rural vision. We certainly can do better than remaining miniature replicas of metropolitan schools. The new visions of education in which rurality is the foundation of the curriculum (rather than ignored in the curriculum) can usher in a brighter, more productive era in our history. The vision is vital, but not enough.

The second "V" is to create a rural voice. We've neglected to discover or create that rural voice. The National Rural and Small Schools Consortium has made a good attempt to organize rural educators and to help them find their voice. The consortium is the most positive step in the direction of

creating a national rural network and developing the national rural voice than anything else that's happened in modern history. It is a legitimate attempt to organize the national rural education constituency—that sleeping giant—and is an effort worth applauding and supporting actively.

Nevertheless, it is a long, long way from where we are to the point at which any of us can rest upon our laurels in the area of creating an organized rural voice. It's great that a couple of hundred people are willing to show up in Washington for this conference. But, let us not forget that we represent a potential constituency of millions—that's right, millions of people. Do you think I'm exaggerating? Think of all of the rural teachers, administrators, and other school employees. Add all of the rural school board members, then add all of the rural parents and finally add the rural students themselves. Together they are our multi-million potential constituency.

Having a couple hundred participants here today is great. It's better than in the past, a real sign of progress. But, it's only scratching the surface of the constituency that's out there waiting to be organized, waiting to be tapped, waiting to come together around a compelling rural vision, and waiting to unite with each other (and with us) to create a powerful rural voice. Having found our own voice, we will lift it up in harmony with the voices of our political allies in rural communities and in the education world. When we learn to overcome our self-imposed public "laryngitis," our voice will ring out across this nation, calling for an end to "placism" and demanding a fair share for our rural children.

The third "V"—victories—will be touched only in passing here. We need victories in rural education and we need success stories. Every new vision of rural educational excellence represents a victory. Every vision that is made real because of a strong rural voice is a major victory.

We need to stop hiding our victories. Lots of rural victories have been won in individual classrooms, in entire schools, and across school systems through rural America. We need to keep *winning* these victories and keep sharing the good news about these victories in order to bolster our morale. Our knowledge of, and experience with, educational victories will give us the momentum we need to sustain our rural vision and our rural voice.

Victories, like defeats, become self-perpetuating. They can generate a momentum that can carry the whole movement forward. However, this momentum depends upon our ability to generate victories for our rural schools and our willingness to share the news—the fruits of these victories—with rural educators across the nation.

I'd like to close with a story about a man named Jacob. He had lead a pious life, a good life. One day he was praying, "Lord, here I am, 79 years old. I've done everything you wanted me to do. I've fed the hungry, housed the homeless, helped the poor, led as good a life as I could lead. Now I have a request. I'd like to win the lottery."

A week passes, but Jacob doesn't win the lottery. So, he prays again, "Lord, maybe you misunderstood me last week.

I don't want this money for myself. I'm old and I'm not going to live long. But, because I've been doing your work all of these years, I haven't put any money aside to care for my wife and my children and my grandchildren. I'm really concerned about their welfare once I'm gone. I've been in your service all of these years, now I'm just asking for one thing—please let me win the lottery."

Another week passes. Jacob doesn't win the lottery. He's becoming a little upset now. He prays once more, "Lord, please listen to me. In all of my 79 years, I've *never* asked for anything for myself. But, now I *am* asking. Somebody's got to win the lottery, why not me? What would it hurt if I should win the lottery?" Then, all of a sudden, a deep and powerful voice descends from Heaven saying, "Jacob, please meet me halfway. Buy a ticket!"

Those of us that want rural children and rural schools to receive their "fair share" ought to heed—and take heart from—the story of Jacob. If we go halfway and if we buy our ticket, we will receive our reward. For us, "going halfway" means developing a sound and compelling vision of the paths to rural educational excellence. Our "ticket" is that strong unified rural voice we have the potential to develop. With these strengths behind us, we *can* win the victory over anti-rural prejudice, societal ignorance of (and indifference to) our special needs, our own timidity and shortsightedness, and the numbing inertia that prevents us from seeing—and from seizing—the opportunities before us to make America's rural schools great.

"At-Risk" Rural Students Benefit From Integrated Approach

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Much of the literature on "at-risk" students does not cover the population of rural schools that may fall under this label but have unique characteristics. For the purpose of this article, I am defining "at-risk" as those students in rural schools who are unmotivated, without purpose for learning or schooling, or with special learning problems (learning disabled, emotionally disturbed, or slow learners). They are often from non-traditional or dysfunctional families. Their parent(s) may have to drive 30 to 50 miles to find work, making time at home with children minimal. These students often come from low-income families since their moving to the rural area may be a means of survival, not a means of finding quality life. They often have parents who lack the traditional values once associated with rural life, especially in farming and ranching areas. True, these same definitions may fit urban or suburban students; but in those schools more counselors and social services are usually available, and the teacher may have a supervisor or coordinator to whom she can turn. These resources are often lacking in rural areas.

On the bright side, the rural teacher may not be faced with the truly incorrigible student who is already a hardened criminal. He is not likely to have students carrying weapons. The teacher is likely to know

first-hand the students' home conditions and may know the parent well enough to contact her or him personally without taking several intermediate steps if a problem occurs.

A special problem the English teacher may have is that he may be operating on the old value system or his own value system, which probably tends to lean toward traditional values and the system as it was 25 years ago. The problems of urban schools have hit rural schools hard, and the teacher may not have all the special services to deal with severe problems. Coupled with fewer resources is the fact that rural teachers tend to have more preparation periods, sponsor more after-school activities, and have less time than urban teachers. Rural teachers are always on call if they live in or near the community school. If they are reaching students, these students may feel free to drop by any time, which, in turn, takes time and energy from the teacher.

What then can the rural English teacher do to alleviate these special problems? I came face-to-face with this question when I returned to my home community and the high school where I taught for six years part-time and 10 years full-time in the 1950s and '60s. I had been absent from that school for 25 years. In the meantime, I had taught poor readers and writers in a high school of 1,000 students in Kansas; I had

taught rural ranch students in a school of 550 students, 30 miles from Denver; and I had been the language arts coordinator for a district of 76,000 students K-12, for whom I had the responsibility of directing language arts instruction. I also spent nine years as a university professor in the graduate reading program. During the university years, I served as a reading/English consultant in such diverse areas as rural Nebraska, the New Mexico Checkerboard Reservation, rural Alaska, rural North Carolina, and the San Luis Valley of Colorado, and I had been a consultant in systems such as Denver, Chicago, Detroit, Atlanta, and St. Paul. All of these experiences had given me a broad base of knowledge about how students differed from rural to urban areas, as well as an understanding of teaching conditions in those places. I had retired and never intended to teach again. My husband had died, and I had moved "home" to be near my mother and grown children in the Oklahoma Panhandle near nowhere! That retirement lasted a school year. In the spring of that year, the superintendent in the district where I had taught all those years ago contacted me about becoming a part-time, one-year, reading/English/speech teacher. The state of Oklahoma had passed a reform bill, and students at Forgan High School had not done as well on the ITBS as the district would have liked. Thus, I returned to teaching in the very same room I had left in 1966, working with colleagues who had been my students and teaching in the high school from which I myself had graduated.

In the fall of 1990, I began an experiment with 20 high school students—one girl (my own granddaughter) and 19 boys—to prove that intensive work in English, using an integrated language arts approach, would

result in improvement in all of the language areas. I chose to teach these 20 students in two reading classes of 10 students each so that I could give each one more attention. I also had these same students in English and some of them in speech. The other English teachers took all those students who scored above 50 percent on the ITBS or scored high on the state writing assessment.

Who were these students? They averaged out to be about one-third special education mainstreamed (mostly LD, with one seriously emotionally disturbed and a couple with low IQ scores), the untaught because of their being transient, two ESL students, and the rest "leisure learners," who were highly unmotivated.

It has been my theory that secondary students do not become better readers or writers, despite special programs, because they lack the following: intensive reading practice, background knowledge and general information necessary for comprehension, experience and practice in writing, and vocabulary in various subject areas. I deliberately chose to take the students who scored in the lower 50th percentile on the state mandated tests and put my theories into practice.

Times had changed, though, from those of 25 years ago: no longer were the students from old-time ranching and farming families, solid families with enough to make ends meet if only one parent (the father) worked. No longer were parents at the school for every event. No longer were all my students from Anglo families; now the school was one-quarter Mexican-Americans whose families had only recently immigrated to the area.

The principles of teaching English to older students, for me at least, seemed very clear, though. I began by teaching study skills (a new idea to these fellows—and one girl). I insisted on notetaking every day. In fact, I took up their notebooks and "graded" them for a nine-week grade. I insisted on their following my few rules—respect for me, respect for each other, giving me their undivided attention, and getting to class on time with proper "equipment." What these folk needed most of all was some structure and self-discipline—a completely new idea, it seemed. Because I am older, an assertive disciplinarian, and the local guru (the first classroom teacher in that school with a Ph.D.), they listened. However, the first week, one of the boys looked around the room, looked at me, and said, "I thought you had a doctor's degree." I assured him I do, but that I do not deliver babies or calves (both kind of doctors being in demand here). He then replied, "Then how did you get stuck with us?" This remark led me to try to help these students realize that they were not the "dummies" just because they had my class. I told them that because of my degree I only taught those whom I chose and that they looked like they could learn, so I chose them. I then set out to prove it!

In addition to study skills, I used a rigorous vocabulary program, not one in which they memorized words, but one in which they studied language—morphemes, function shift, and phonology. I used these very terms with the students. I taught them the history of their own Indo-European, Germanic, Anglo-Saxon, multicultural language. They learned etymology as well as pronunciation, spelling, and definitions of words. A great deal of complaining took place the

first few weeks, but I kept on giving the tests over until every student passed. No excuses.

I taught handwriting to these sophomores, juniors, and seniors. I insisted they write legibly. I just returned papers ungraded until they did.

I used the techniques from all the years I had taught speed reading to university students and employees of large corporations to build rate and fluency—a major problem with poor readers. The students thought it was fun to keep score on themselves. I also had them keep a practice chart, 30 minutes reading at home at night with the parent signing off that he or she saw the student do it. For the first several weeks, I had difficulty convincing both parents and students that they had to do this for a grade.

I taught thematic units to improve comprehension and literary elements. Out of every unit came opportunities to read, write, speak, and listen. Students wrote books for younger children, for instance, which they then took to the elementary school and read to the students. In turn, these children wrote stories and brought them to us for their presentation.

One unit covered the history of our county, which is colorful and full of action. Students read two nonfiction books about this area, both by Harry E. Chrisman: *Fifty Years on the Owl Hoot Trail* and *Lost Trails of the Cimarron*. They then studied two local histories of the county, which I had helped edit 20 years ago, and read *Man and the Oklahoma Panhandle*, by Berenice Jackson. They wrote letters to Mr. Chrisman, criticizing both the books and commenting on any families they knew who might be

related to the real people in his books. Then they went to a local cemetery in the county and made a rubbing of the oldest headstone. I brought my own brass rubbings from medieval English graves to show the students. After doing the rubbing, they had to look up that person in one of the above listed books in order to write about the family. The next assignment was a field trip to the Jones and Plummer Trail Museum in Beaver, Oklahoma, to view the artifacts and pictures there. Finally, they had to write a short story based on a real, historical person from this area. Most of these students had never written more than five lines in their lives. They worked cooperatively with writing partners and in group instruction, using note cards, to develop conflict-resolution, setting, characters, and point of view. The quality of stories the students wrote was amazing.

As a follow-up to the above assignments, I showed a videotape from PBS about Chrisman, and he responded to the classes in a letter of his own. Students also read *Shane*, by Jack Schaefer, and *Cherokee Trail*, by Louis L'Amour, writing a comparison of these fictionalized stories about the Old West with those of Chrisman's non-fiction accounts. The few students who still live on ranches in the area brought old family pictures to share.

During that first year, these students, who said they had never read a book before, read 11 novels or nonfiction books and five short stories. They also studied *Julius Caesar*, *Romeo and Juliet*, and *Hamlet*.

At the end of the school year, their scores had improved significantly at the .01 level on the Stanford Diagnostic Reading Test, blue level. Even though their punctuation skills and spelling accuracy were not

perfect, they were able to write interesting, coherent prose in the type of discourse required.

What were the key elements of the program? Structure and self-discipline to get work in on time, even to do the work at all, for some of them; many hours of reading in front of me so that I knew they were doing it; and an integrated approach, using writing, speaking, and listening with every assignment. Students wrote all assignments in class so that I could help them as they composed. I taught grammar and usage and the conventions of written language in mini-lessons as the need arose, and they read their emerging compositions aloud to see how the "rules" make the reader understand what they intended. But most importantly, these students found out that they were intelligent and capable students. At the end of the year, "forgetting" I was not still a college professor, I handed out a course evaluation. One of the questions I asked was, "What was the most important thing you learned this year?" thinking that they would say, "I learned about Beaver County and Cimarron Territory," or "I learned study skills." Instead, to a person, in various terms, each one said, "I learned I was not stupid."

At the end of that first year, the teacher for whom I was teaching half-time did not choose to return, and the superintendent asked me to stay another year. I agreed because I'd had such a good time. Although I would have to change my materials since many of these same students would be in my class again, I would still have the arrangement of 10 in each section. Despite significant gains, most were not up to 50 percent on the ITBS, so I "chose" them again. I enjoyed having the discretion to choose

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books I thought these students would like and from which they would profit since I knew most of them personally.

Again, I used structured study skills, routine, and a strong vocabulary program. Essentially, I ran the class the same way I had done, using thematic units, much writing, and some public speaking. One of the units I used was a "rite of passage" theme with young adult literature selections. Students read *Light in the Forest*, *When the Legends Die*, *No Promises in the Wind*, *My Brother Sam Is Dead*, *A Day No Pigs Would Die*, and *Tex*. They then wrote a "rite of passage" essay, relating themselves to one or more of the characters of these books. They also read *Fahrenheit 451*, which they found very difficult, not surprising since poor readers often find science fiction hard. However, they HAD to finish it and then write a paper on censorship. Their task was to defend a book—any book—from the censors. Since most of them had never read anything except in my class, most chose *A Day No Pigs Would Die*, a book challenged by parents in the district where I had been the language arts coordinator. These students, who were at least familiar with agriculture, were amazed that anyone would object to this book.

The students' favorite book this year was *Of Mice and Men*. To say they were riveted to it is stating it mildly. My most "leisure learner" read it overnight. To accompany the book, we watched the movie starring Robert Blake. Some cried. Remember, these are nearly all junior and senior boys!

As the year's final project, I chose library books that I thought students would like, selecting a special book for each student (and

letting them know that). Most choices were young adult literature, with the exception of Truman Capote's *In Cold Blood*, which is set very near our town. Students then had to give a 10-minute book talk. I was pleasantly surprised that they coached each other and asked permission to go on the stage to practice on each other before they actually had to deliver the presentation before the entire class. Some of these students were also in the speech class I taught, so I made them the "official" coaches.

Are these students now wonderful readers and writers? No. They probably will never read at the level they should because they started too late, or because some have severe learning disabilities. Are they better readers? Yes, definitely. Do they write better? Yes. They scored as well as the students in the other English classes on the state writing test the second year. Do they have more knowledge at their command? Yes, definitely. Do they know more words than before? Of course. Do they do better on standardized tests? Sometimes. They are petrified of them. (But aren't we all?) Or the students do not see the reason for having to take them, so they do not read the questions, only mark the answer sheet. Will I do this again? Yes, indeed. When the superintendent asked me back for "one more year," I couldn't wait to sign the contract. Would I do this anywhere else? Probably not. Only in a small, rural school can one impose the standards, structure, and demands for excellence from a mix of students like these and get results. I've always been an advocate of rural schools, even when I was language arts coordinator for 76,000 students in one district. I still am.

The Critical Role of Rural Teachers in the Educational Reform Movement

David Leo-Nyquist
Weott, California

To someone not familiar with the current directions in school reform and restructuring, the attention given to the tenth anniversary of the publication of *A Nation at Risk* might be deceptive. While that government-sponsored report marked the beginning of a wave of highly publicized top-down, state-level reform initiatives in the mid-1980s, the most interesting recent developments have been on a much smaller scale, often involving individual schools and districts or clusters of schools organized as networks. Many schools on the cutting edge of reform are small and rural.

It is misleading to focus on official pronouncements from high-level national spokespeople—like the President or his Secretary of Education—for insight into what "educational reform" is all about. For example, I consider educators like Nancie Atwell, TheodoreSizer, Dennis Littky, Eliot Wigginton, and Deborah Meier to be much more reliable sources of information about hopeful trends and examples of school reform than the voices coming from the Washington Beltway. John Goodlad recently wrote that there are actually *two* reform movements: one "official" and policy-driven, centralized, top-down, and mostly rhetorical; the other less visible and teacher-driven, decentralized, bottom-up, and—within many locales and networks—often quite substantive. As rural teachers, it

is to this latter, small-scale movement that we should look for inspiration.

The bumper sticker, "Think globally, act locally," is relevant here. We have always acted locally; that's the nature of our daily work with kids in classrooms. But few of us have spent much time "thinking globally" about what we do—trying to understand how our work fits into the "big picture" of educational policy and national trends. Understanding this big picture is both a responsibility we have never taken on and a power that others (usually policymakers many times removed from the day-to-day realities of schools and classrooms) have assumed *for* us.

Even though there seems to be a new awareness in many parts of the country that reforms can't be mandated, that change will happen one school at a time, and that there is no "blueprint" for change that will work everywhere, much of the best school reform literature is still surprisingly "generic," context-less, and lacking teacher "voices." Innovative educational practices are often described with no reference to the larger school and community settings in which they take place, and the "experts" called upon to legitimate new approaches are researchers, politicians, and foundation executives—not practitioners.

For example, at the conclusion of an otherwise excellent nine-part series on the educational reform movement, the editors of *Education Week* convened a group of 11 of "the nation's leading education reformers" to discuss the long-term implications of current trends—but no school people were present. The journal's coverage documents a movement that is largely school-based and teacher-centered, but the officially sanctioned "global thinking" about such issues is monopolized by school outsiders. Such oversights, however well-intentioned they may be, remain part of the problem. Educational reform will be more rhetoric than reality until teacher expertise and leadership are taken seriously.

Until recently, widespread school improvement efforts were wedded to the assumption that "bigger is better." The century-long consolidation of small, rural schools into much larger, suburban/urban-sized units was a conspicuous example of this practice. Rural educators were encouraged to believe that smallness was an educational disadvantage rather than a strength. The breakdown of many large, urban school systems in the last two decades, however, has challenged that assumption and prompted some farsighted urban educators (most notably in New York City and Philadelphia) to reverse the "bigness" trend. As expressed by a program director for a private foundation supporting such efforts, "This movement is ambitious enough to believe that all secondary schools should be restructured into smaller, more humane communities" (*Education Week*, May 19, 1993, p. 5).

The most well-known of these urban small-school advocates, MacArthur Award-

winning, Central Park East Secondary School (Harlem) principal, Deborah Meier, maintains that small schools are an "absolute prerequisite" for meeting the goal of educating all students well. "It is not guaranteed to happen in a small school," she believes, "but it is guaranteed that it will *not* happen in a large one." This reversal of conventional wisdom, coupled with the current emphasis on the central role of teachers in long-term school reforms, places rural teachers in a privileged position: what we know about working with students—and with each other—in small schools may at last be valued by the educational reform movement.

In practical terms, what this means is that solutions to educational problems worked out in small, rural schools can have great relevance for schools everywhere that choose to reorganize themselves on a smaller scale. In the space remaining, I want to sketch out several areas in which small schools—and rural teachers, in particular—can exercise leadership and influence the future direction of the reform movement nationwide.

The items outlined below are not specifically *rural* issues, but *educational* issues that need to be addressed in all kinds of school contexts. These are areas of concern that we share not only with all teachers within this country, but that cut across national and cultural boundaries. However, we address these issues from within the specific rural contexts where we live and work, and our discussions—if they are to help us as we attempt to be more effective in our work as educators—need to be replete with specific contextual details. Our stories are not only school and teaching stories, but also *rural* stories. The communities

that will be changed or not changed by our efforts are *rural* communities. And, in spite of the culturally homogenizing impact of the mass media (especially TV and popular music), our students' lives are embedded in specific rural cultures that we, unfortunately, often overlook and underutilize in our teaching.

Many small, rural schools, because of their special circumstances (such as small scale, close connections to the community, flexibility of adult roles, and high level of student participation in school activities) can move rapidly in the indicated directions *if they choose to do so and if they can learn how to take advantage of their unique conditions.*

Small Is Beautiful

Maintaining social relationships on a small scale is an extremely important factor in personalizing the learning process, and can provide the starting-point in efforts at "community building" within small schools. There is no guarantee, however, as Meier points out, that small equals "better." Dennis Littky, a rural principal in New Hampshire who has managed to tap the leadership potential of his teachers in transforming a mediocre school into an outstanding school over a 10-year period, echoes the same warning: "What's good about a small school is that you get to know the kids, but you have to know them in a certain way" (*Education Week*, May 19, 1993). As our classroom approaches become more personalized and our support systems more successful in preventing our students from "falling through the cracks," we can draw freely from—and contribute to—the rich literature on student learning

styles, alternative forms of grading and assessment, and advisory groups that is accumulating across the country.

School/Community Connections

The strength and survival of our communities depend on strong schools. This is true everywhere, but the connection is more visible and obvious in small towns and rural areas where schools are often the largest employers and school people often function as communitywide leaders. Building upon the informal friendship networks that exist in most small communities, rural schools can make their school walls permeable. Students can learn how to make the community into their extended classroom, and community members can freely share their expertise and resources within classrooms.

Fostering a Sense of Place

Rural teachers can help to foster community feeling and a sense of place among their students by creating alternatives to the "generic curriculum" of textbooks, worksheets, and commercially produced tests. For many years, rural school advocates accepted as axiomatic that there was an "urban conspiracy" against rural children in terms of curriculum: that the dominant educational policies and practices were designed with urban schools in mind and then shipped out to the countryside—like ill-fitting "hand-me-down" clothes—for rural students to wear.

Rural education advocate and scholar, Jonathan Sher, believes (as I do) that "conventional educational policies, materials, and practices weren't designed with *any specific group or any particular place in*

mind. Rather, they appear to have been derived from a misplaced faith in some mythical 'average' school, student, and teacher." From this perspective, "urban teachers and students are as badly served by the conventional educational model as rural ones." What does a "place-specific" or rural curriculum look like? How can we adapt and "translate" curricular mandates into approaches that "fit" our local circumstances?

Ecological Literacy

Our proximity to the natural resources upon which our nation depends allows us to give our students firsthand experiences with stewardship. "Ecological consciousness" is more widely and deeply dispersed throughout the general population than it was a generation ago, especially among the young. What is our role in helping that process to continue, in fostering what Aldo Leopold called a "land ethic" among ourselves and our students? How can a more thoughtful approach to local resource management become embedded in our K-12 curriculum and impact the long-term economic viability of our rural communities?

New Forms of Leadership

Schools are in dire need of leadership that is more than "management." This new leadership will involve rethinking the role of the principal, nurturing teacher leadership as it emerges, and being more creative and flexible in defining our teaching roles.

I agree with Roland Barth that "teachers harbor extraordinary leadership capabilities, and their leadership is a major untapped resource for improving U.S. schools." Many small, rural schools have preserved—or could fairly easily move toward—a tradition of the "teaching principal," which can help break down the communication problems and adversarial relations common in large schools with more rigidly defined and specialized roles. Small schools can be trailblazers here if they can learn to respond imaginatively to the question of "leadership."

We need a strong network—not just of *teachers*, but of *rural* teachers—or our efforts will take place in isolation. We need established ways of sharing with each other and of sharing our successes with the "larger community." Having our own publications, like *Country Teacher* and this anthology, is an important step in this direction. Our task as rural teachers who are committed to reform is to sift through the resources and models available to us, recognizing the entrepreneurial panacea-peddlers for what they are and adapting the most powerful and useful practices to our own unique circumstances. But even more important, our task is to understand that the greatest reforms—inspiring changes that can blaze the trail for others to follow—can happen in our own classrooms and schools. We must build upon our strengths and learn to use our most obvious natural advantages wisely.

Preparing Students for the Real World

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As the spring semester wound down, high school students in the California town of Woodland worked on practical applications of the concepts they had learned during the year. In one class, students used thermometers and pressure gauges as they put the principles of thermodynamics to the test. In another, students discussed legal issues in group presentations. Across the courtyard, a class debated the effects of labor costs on a business proposal.

Are these advanced placement students in physics, government, and economics? No, they're food and nutrition students reviewing why a pressure cooker works well for certain recipes, vocational business students analyzing consumer protection laws, and crop science students evaluating the costs and benefits of a hay baling job they'd been invited to bid on.

Similar scenes take place daily in the vocational classrooms of Woodland High School—a school that has earned nationwide acclaim as a model for integrating academic and vocational education. In fact, the school is the only one in California that meets all 42 criteria in the state's

"Educational Excellence Through Career-Vocational Education" project.

Woodland, a three-year high school serving an agricultural community of 40,000 and located 15 miles from Sacramento, has so successfully blurred the distinctions between theory and practice that 93 percent of the school's 1,600 students take vocational courses as an essential component of their studies. Principal Kevin Brown says the school and its students pay little attention to the traditional definitions of vocational, general, and academic curricula.

"Last year both our valedictorian and salutatorian were in our drafting program, and both are going into engineering," Brown notes. "We had them in Drafting I as sophomores, in Architectural Drawing as juniors and in Computer-Aided Design as seniors. These kids, who are in physics or calculus programs where they learn theory, also get opportunities through vocational education to see the practical application of applied academics."

Just as college-bound students take more vocational courses at Woodland, so are vocational students taking more academic courses. "We have kids taking a 30-unit path through the automotive program. They're also in algebra and geometry, recognizing now that an automotive technician needs that abstract thinking and needs to

understand geometric principles just to calibrate carburetors today," Brown says.

At Woodland, he says, "Academic and vocational education are not alternative instructional strategies. They're complementary."

Coping With Success

That idea receives lip service in hundreds of schools and dozens of education conferences every year. But at Woodland, it actually seems to work. What's the difference?

Brown says the school's success lies in its Career Opportunity Paths in Education (COPE) program. Instituted with the help of a state grant in the mid-1980s, COPE represented a radical reorganization of Woodland's curriculum, casting off the traditional structure in favor of one that ties school work to the work students will do once they leave school.

Aided by a comprehensive guidance program in which Woodland's six counselors begin working with students to identify occupational interests during the junior-high years, students remain focused on their career goals throughout high school. A four-year curriculum plan—based on career goals and developed by the student and his or her parents—guides selection of vocational and academic courses, work-study opportunities, and extracurricular activities. This comprehensive guidance focus, reinforced by regular and frequent counseling throughout students' three years at Woodland, has helped the school better serve its students on almost every front, Brown claims.

Although the school serves a predominantly middle-class community, several factors caused concern in the pre-COPE days. One survey conducted by the guidance staff found that 65 percent of all students were at-risk. Also, 34 percent of the school population are minority students, mostly Hispanic, and 18 percent of students are classified as limited-English proficient. Brown and many teachers worried that they were in danger of losing kids. The COPE program was designed to prevent that.

Brown says, "We determined a few years ago that we were missing two key elements that helped motivate students to want to learn: practical application and relevancy. There wasn't a connectedness to high school for the vast majority of kids."

Needing a hook to keep students enthusiastic about education, the teachers and administrators at Woodland hit upon an obvious truth: people need to earn money in order to live. "We determined that the first among equal reasons why students are in school, why we all pursue education, is to get a job," Brown recalls. "Students needed to start recognizing that high school learning could help build the foundation for what they thought they might want to do in their lives. So we developed Career Opportunity Paths in Education."

The results have been impressive. Most Woodland students today seem genuinely interested in learning, and since COPE began, student test scores of all kinds are up. The number of students completing the courses required to enter the University of California system has more than doubled from 18.6 percent to 38.8 percent. Two-thirds of Woodland students now pursue some form of postsecondary education,

compared to less than half before COPE. Significantly, the school's dropout rate has declined 38 percent and the suspension rate has dropped from 840 days per year to 104.

Career Exploration

Under COPE, vocational education courses and vocational staffing have increased by 40 percent, even though the student population has remained constant. Woodland High School offers more than 40 vocational courses taught by 19 faculty members in the departments of agriculture, business, home economics, and industrial technology.

While these vocational courses provide plenty of exposure to career options, Brown and his teachers make sure all classes emphasize that school is preparation for work. Even traditional academic subjects such as English and government can take on an occupational focus at Woodland.

For example, one English class requires students to write a 10- to 12-page research paper. The nominal goal of the assignment is conventional—to teach students how to conduct a literature search, develop written arguments, and use proper grammar and style. Before COPE, students were free to choose their own topics or select one from a list of topics teachers had prepared. Now students have required topics—the career goals on which their four-year plans are based. Says Brown, "Every student's research paper is now directly focused on what they think they want to do in their lives." Students research their papers using computerized databases to examine educational requirements, skill requirements, job opportunity outlooks, and salaries. Then

they interview three people who hold positions in their prospective career fields.

A project in a government class provides another lesson in career exploration. Assigned to profile a political leader, students use a format prescribed by the teacher. They must list subjects' names and addresses, where they went to school, the types of jobs they held, the skills they acquired, their hobbies or interests, and the names of three people who knew them well. "When they get done with this little project," explains Brown, "lo and behold, they've learned how to put a resume together."

Career Paths

Extensive career exploration and comprehensive guidance may be hallmarks of Woodland's curriculum, but the real heart of the school's COPE program are six instructional clusters called career paths:

- Agriculture and natural resources
- Arts and communications
- Business and marketing
- Health, home, and recreation
- Industrial technology and engineering
- Social, human, and governmental services

These career paths consist of elective courses that students must take to make up the difference between the mandatory 135 core credits specified by the state of California and the 240 units required for graduation (25 of Woodland's career path courses may substitute for certain state graduation requirements, most often in science and math).

Each student's four-year plan is tied directly to one of the six career paths, and all students—those who will go on to post-secondary education as well as those who will start work immediately upon graduation—must be in one of the paths.

Career path courses cut across traditional departmental boundaries. A student focusing on agriculture and natural resources may take career path classes from the agriculture, business, industrial technology, mathematics, science, and foreign language departments. The interdisciplinary nature of Woodland's career paths provide students with the breadth and depth of skills and knowledge they will need to succeed when they move into the world of work.

Achieving Real Integration

Woodland's career path structure brings all types of students into contact with one another. Future nurses and lab technicians often take the same sequence of courses as future physicians. That mingling of students is good for students and good for the school, Brown maintains.

"That's what the real world is like. You have the doctor, but you also have the X-ray technician, the radiologist, and the nurse. You have the person who comes in and does the scrubbing and cleaning, and you have the electronics technician who calibrates all

the machinery. It's a team, it's a group effort," Brown says.

Woodland has consciously tried to foster that kind of real-world atmosphere. The COPE program seems to have achieved a successful integration of academic and vocational education. "Integration to us is more than just granting graduation requirements for some vocational programs," he says. "Some schools think that's integration. But integration is really looking at the total curriculum, determining how that curriculum best can serve the individual goals and needs of each student and then developing a plan for that student to progress through the curriculum to reach those goals," Brown says. "That requires viewing academic and vocational programs as complementary strategies."

He says that almost any school can replicate the successes of Woodland High School's program. "All the components are in most schools already," Brown says. "Organized leadership and guidance can bring those components together and focus the school's resources, energies, curriculum, and instructional programs.

"For us, that focus was career paths as a way of identifying areas of interest to the kids and tying everything to the student. Students are at the center. Whether they want to go to higher education or on to the world of work, they're all here to get a job."

What Administrators of Smaller Schools Do

Constance M. Perry and Thomas H. Perry

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How do principals of smaller secondary schools spend their work time and what problems do they encounter? Is the role of principals of smaller secondary schools significantly different from that of principals of larger secondary schools?

To begin to answer these questions, NASSP [National Association of Secondary School Principals] sent three surveys to random samples of small secondary schools (750 students or less) across the United States.

Survey I was sent in 1985 to 576 schools; 289 surveys were returned. Survey II was sent in 1986 to 725 schools; 340 were returned. Survey III, which combined the questions of the first two surveys, was sent to 672 schools in 1989 and returned by 404 schools.

The surveys differed slightly in format. Surveys I and II utilized five-point scales ranging from "strongly agree" to "strongly disagree" for each item. Survey III allowed only two response options—"yes" and "no"—forcing a choice rather than allowing respondents to remain neutral. Chi-square

analyses between Survey I and Survey II questions and the corresponding Survey III questions were used to identify significant differences.

Survey Results

Characteristics of respondents, their schools, and their communities are listed in Tables 1, 2, and 3.

Overall, the majority of the respondents were male principals of schools most often situated in small cities, towns, or rural areas. The schools had a variety of grade structures typical of middle level and high schools. The only noticeable difference among the respondents to the surveys was the principals' overall school enrollment, which was less among the 1989 respondents.

Did these administrators perceive their role to be significantly different from that of their colleagues in larger schools? Sixty-four percent of the respondents to Survey I said, "yes." On follow-up Survey III, 82 percent answered "yes." (See Table 4)

Demands on Time

Responses to Survey I and Survey II items pertaining to the role of the principal of the small secondary school as well as the corresponding Survey III items are summarized in Table 4.

The majority of the Survey I principals (54%) indicated that they spent less than

Table 1. Survey I (1985)				
Position Title	Respondent's Sex	School Enrollment	Community Status	Grade Structure
96% Principal	90% Male	4% Under 100	.5% Urban	15% 5 or 6-8
4% Missing	6% Female	19% 100-249	15% Suburban	16% 7 or 8-9
	4% Missing	18% 250-399	6% Medium City	22% 7-12
		34% 400-599	36% Small City/Town	34% 9 or 10-12
		22% 600-750	32% Rural	10% Other
		3% Missing	10.5% Missing	3% Missing
Table 2. Survey II (1986)				
Position Title	Respondent's Sex	School Enrollment	Community Status	Grade Structure
100% Principal	91% Male	3% Under 100	10% Urban	22% 5 or 6-8
	9% Female	14% 100-249	20% Suburban	14% 7 or 8-9
		20% 250-399	7% Medium City	16% 7-12
		27% 400-599	34% Small City/Town	37% 9 or 10-12
		36% 600-750	24% Rural	11% Other
			5% Missing	
Table 3. Survey III (1989)				
Position Title	Respondent's Sex	School Enrollment	Community Status	Grade Structure
91% Principal	90% Male	7% Under 100	7% Urban	15% 5 or 6-8
8% Assistant Principal	10% Female	27% 100-249	15% Suburban	8% 7 or 8-9
1% Supt./Assistant Supt.		34% 250-399	5% Medium City	26% 7-12
		27% 400-599	30% Small City/Town	40% 9 or 10-12
		4% Over 600	43% Rural	11% Other
		1% Missing		

50 percent of their time as instructional leaders. That percentage increased in Survey III: 68 percent of the respondents said that they spent less than half of their time in that role.

So, how do they spend their time? Survey II respondents reported supervising non-teaching personnel (75%) and directly handling student discipline (65%). This might be a reflection of the fact that of the Survey II respondents, 78 percent did not have a full-time assistant principal, 65 percent did not have a full-time guidance person, 73 percent were also athletic directors, and 79 percent had central office responsibilities.

The results of Survey III, conducted in 1989, differed from the earlier surveys in many ways. In addition to indicating that their jobs differed significantly from those of larger school administrators and that they spent less time as instructional leaders than did the respondents to the first two surveys, participants in this third survey reported:

- Increased employment of full-time assistant principals
- Increased full-time employment of guidance personnel

- Decreased assumption of athletic director role
- Decreased central office responsibilities

Problems of Small School Administrators

The survey results describing problems the small secondary school principal encounters are summarized in Table 5.

Of the Survey I statements listed in Table 5, only "attracting fully qualified teachers is an increasing problem" prompted agreement or strong agreement by more than half the respondents (52%).

Other, less universal problems indicated were restrictions imposed by increased state graduation requirements, teacher certification in only one subject, student scheduling, and curriculum cutbacks due to inadequate funding. Sixty-nine percent of Survey I respondents reported having to rely on fund raising to maintain programs.

The most agreed-upon problem, by far, is the volume of paperwork that adversely affects job effectiveness (87%).

Many problems that small secondary school principals indicated in Surveys I and II were perceived as less severe by respondents to Survey III. According to Survey III, significantly fewer administrators considered teacher certification in only one

Statement	Survey I		Survey III		
	Strongly Agree or Agree	Strongly Disagree or Disagree	Yes	No	Significant Differences
Your role as principal of a small secondary school is significantly different from that of your larger school colleagues.	64%	24%	82%	18%	.001*
Fifty percent or more of your time is spent as instructional leader.	40%	54%	32%	68%	.001*
Statement	Survey II		Survey III		
	Strongly Agree or Agree	Strongly Disagree or Disagree	Yes	No	Significant Differences
You must supervise non-teaching personnel (custodians, bus drivers, etc.).	75%	23%	74%	26%	--
You directly handle student discipline.	65%	19%	80%	20%	--
You have a full-time assistant principal.	16%	78%	34%	66%	.001*
You have a full-time guidance person.	27%	65%	69%	31%	.001*
You are also athletic director.	73%	22%	21%	79%	.001*
You also have responsibilities that require central office authority.	79%	11%	51%	49%	.001*

Statement	Survey I		Survey III		
	Strongly Agree or Agree	Strongly Disagree or Disagree	Yes	No	Significant Differences
Increasing state graduation requirements impose restrictions on your school.	42%	44%	40%	60%	--
Certification of teachers in only one subject is a serious problem in your school.	48%	36%	36%	64%	.001*
Student scheduling is a major problem in your school.	41%	42%	50%	50%	--
Attracting fully qualified teachers is an increasing problem in your school.	52%	30%	40%	60%	.001*
You are experiencing curriculum cutbacks because of inadequate funding.	32%	49%	37%	63%	--
Statement	Survey II		Survey III		
	Strongly Agree or Agree	Strongly Disagree or Disagree	Yes	No	Significant Differences
You must rely upon fund raising to maintain programs.	69%	25%	49%	51%	.001*
You have sufficient support personnel (secretaries, custodians, etc.).	63%	34%	65%	35%	--
The volume of paperwork required of you adversely affects your job effectiveness.	87%	12%	73%	27%	--

subject or attracting fully qualified teachers to be problems.

In addition, significantly fewer respondents to Survey III reported relying on fund raising to maintain programs (49% vs. 69%) or experiencing major students scheduling problems due to the need for teacher certification in a variety of content areas (29% vs. 57%).

The latter respondents also indicated that paperwork did not adversely affect job effectiveness to the degree that their predecessors did.

However, Survey III respondents did agree that the volume of paperwork was the biggest deterrent to job effectiveness.

Role Comparisons

How do administrators of smaller secondary schools differ from their colleagues at larger schools with relation to roles in the school?

As far as their role as instructional leaders is concerned, the two groups do not differ greatly. Studies show that principals overall spend little time on instructional leadership,

although they acknowledge its importance (Valentine et al., 1981; Byrne, Hines, & McCleary, 1978; Pellicer et al., 1988).

Chance and Lingren (1989) surveyed day-to-day activities of rural secondary school principals from high schools with fewer than 150 students. The majority (56%) identified instructional leadership as their first priority, followed by discipline and management.

However, when asked to estimate the percentage of time spent on a daily basis in four areas, the average responses were as follows:

- Performing general managerial duties: 48.3 percent
- Working directly with teachers: 11.5 percent
- Disciplining students: 22.3 percent
- Meeting with parents: 6.8 percent

After comparing these results to our surveys of small schools, a few conclusions can be drawn. However, it appears that the comparison raises more questions than it answers.

Although of those administrators who participated in Survey I, 54 percent disagreed with the statement, "50 percent or more of your time is spent as instructional leader," 40 percent agreed with the statement. Do many administrators of smaller secondary schools really spend so much more time on instructional leadership than principals in a cross-section of schools sampled by the other studies? If they do, then their job is significantly different from that of principals in all other schools.

Perhaps, as asserted by Chance and Lingren (1989), there is a contradiction between the perceived role of smaller secondary school administrators and their actual day-to-day activities. Only 32 percent of the Survey III respondents said that they spend 50 percent or more time as instructional leaders. Perhaps they are being realistic rather than responding as they think they should or would like to respond.

Because of the lack of similarity in data, few other comparisons between administrators of smaller schools and principals overall are possible. However, the emphasis on student behavior in the NASSP middle level (Valentine et al., 1981) and high school studies (Byrne et al., 1978; Pellicer et al., 1988) and on the enforcement of school rules and order in the Morris study (Morris et al., 1984) show that like the small secondary school survey findings, principals in general directly handle at least some discipline problems.

Common sense tells us that if principals must also act as athletic directors, guidance counselors, and assistant principals, their role must be different from that of principals who have such personnel available. Survey III respondents reported more often having such support personnel. The increased percentage is enough to indicate that role changes may have occurred since the first survey was administered.

Comparison of Problems

High school principals in the NASSP study (Byrne et al., 1978) report time taken by administrative detail as the major road-block or problem, followed by lack of time, variations in the ability of teachers, and inability to obtain funds. The high school

principals in the 1988 survey (Pellicer et al.) identified the same first and second problems, followed by "inability to obtain funds." "Variations in the ability of teachers" was ranked seventh.

Middle level principals (Valentine et al., 1981) identified administrative detail as the foremost roadblock, followed by apathetic or irresponsible parents, problem students, inability to obtain funding, lack of time, and variation in staff ability.

If administrative detail can be likened to the statement in Surveys II and III about heavy paperwork load, then the main problem of principals is the same no matter the size of the school or whether it is a middle level or high school.

Other problems found common across the reported studies and the small school surveys are lack of financial resources and concern about the quality of teachers.

However, the administrators of smaller secondary schools may indeed have problems unique to their schools, such as the student scheduling problems and problems with teachers being certified in only one subject.

Although these topics were not included in the aforementioned studies, Monk (1984), in a random sample of school districts, found a greater incidence of teachers

instructing outside their area of certification in smaller school districts.

Summary of Results

Although many questions still exist about the role of the principal of a small secondary school, it is encouraging to note that more small schools now have athletic directors, guidance counselors, and assistant principals. Also worth noting is the significant decrease in the number of principals reporting:

- Major scheduling problems
- Reliance on fund raising to maintain programs
- Problems with certification of teachers in only one subject
- Lack of fully qualified teachers

Although principals of smaller secondary schools believe their roles are significantly different from those of principals of larger schools, more data are needed to make such a conclusion. The initial data indicate similarities as well as differences by school size.

Perhaps most significant is the large discrepancy between Surveys I and III and the other studies in reported time spent as an instructional leader. However, further research is necessary in that area also.

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Rural School Counseling: Turning Obstacles Into Opportunities

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My decision to become a school counselor was a relative epiphany, born of a culmination of efforts to find a career that would satisfy my interests in education, community involvement, and adolescents. Although all school counselors have arrived at this career by different avenues, we have in common a desire to provide a positive direction to the development of school-aged children. Where we differ, however, is the size and type of community in which we carry out this task.

Before I got my job, I gave little thought to how demographics would affect the very nuances of a school counseling position. Now, I am the only senior high school counselor for 280 students in a farming community of New York's Southern Tier. It certainly is not the setting in which I imagined myself. Because I was raised in a suburb of New York City, I pictured myself working with the youth we see frequently in the news: those who are urban, underprivileged, lacking opportunities, and needing new challenges. What I discovered is that, without the "urban," all of those descriptors apply to students in rural communities as well. But unlike those of urban communities, the needs of rural communities and the subsequent responsibilities of school counselors were underreported. In reality, the dispari-

ties of counseling in an urban or rural school rest less in the types of challenges that face our students and more in the manner in which we can address those challenges as their counselors.

School counselors are not without peers or opportunities. Although each of our experiences is unique, we can take similar steps to maximize the reward of our common position. First, it is important to re-examine what brought us to the field of counseling and how we define our experiences and responsibilities. Second, it is important to categorize how we perceive our communities' expectations of us and reactions to us. Third, we must evaluate the problems of counseling in a rural school. And finally, each of us would benefit from expressing our thoughts on the direction of rural school counseling and how the position can be fortified.

Initial Experiences With a Rural School

Since my initiation into rural schools, I have changed some very fundamental assumptions that I made about school counseling. I assumed that I would have to struggle to make my role clear within the school. I assumed that I would have to struggle to make myself visible within the

school. And most important, I assumed that I would have to struggle to evaluate the needs of the community's students. What I learned is that without the career counselors, testing supervisors, college counselors, and even assistant principals of larger school districts, the role of the rural school counselor seems lucid enough: we do a little bit of everything. And making ourselves visible? It is not difficult when each rural district employs only a handful of counselors. But perhaps most germane to the daily functioning of rural school counselors is that our close contact with the community ensures that we remain aware of its needs.

My pleasure at immediately understanding the rural community's problems, challenges, and expectations was soon clouded by the formidable lack of resources and frequently archaic systems inherent in rural schools. This paradox of knowing the community's problems but having underdeveloped resources to address its issues, has since become my paradigm of rural school counseling. We simultaneously face opportunities and obstacles.

The degree and type of archaic resources vary widely between school systems. When I began, one visible deficit in my own district was its lack of computerized guidance tools. We lacked not only one of the popular and expensive, interactive guidance systems, but also scheduling and report card instruments. Before my arrival, the master schedule was done by hand and the secretary typed all junior and senior high schedules. Fortunately, we have acquired both a student-friendly and schedule-creating computer, but grades are still written on report cards, and I hand calculate honor role averages and senior ranks. The disad-

vantage of this antiquated system is obvious: I am not available for students' counseling needs while I am plugging 22 grades into a calculator to determine a senior's average. These deficiencies tell of a greater implication for rural schools and their counseling programs. As Cole (1991) recognized in his examinations of rural school shortcomings, "Schools that can afford lots of [computers] . . . will do so, and the gap between the haves and have-nots will widen." Rural students ultimately are the have-nots when resources are unattainable in their district's counseling program.

Many outdated models of operation in rural guidance offices stem from a myth that change is unwanted all across rural America. For example, all rural school counselors are undoubtedly aware of one potential nemesis: the-way-it's-always-been-done syndrome. This phrase is frequently heard in response to such questions as, "Why don't we offer any electives in the English and history departments?" But change is not shunned; it simply is slow and requires initiative. Unlike schools in urban areas that sometimes have change thrust upon them, rural schools and their consequent isolation necessitate that change be brought to them.

The rural school counselor is in an ideal position to initiate change. The autonomy inherent in our position because we are frequently one- or two-person operations gives us the freedom to explore our ideas without much opposition. Students, parents, and faculty alike have been surprisingly open to changes in homogeneous tracking systems, additional course offerings, group counseling activities, and classroom-based career projects. But here, again, the paradox

of rural counseling appears. Faced with openness and flexibility, we lack resources and are often isolated from the changes taking place in other districts.

Despite the frustration this conflict creates, I sometimes get a reminder of the strengths of the rural school counselor from the world outside our rural community. Recently, a new student enrolled in our district from a large, urban school on Long Island. On the telephone, his counselor informed me that he had a special education classification and was scheduled only for self-contained classes. Thinking aloud, I said, "Oh, we're such a small school, we don't have self-contained classes on campus." But when I asked his specific classification, she responded, "We're such a big school that I'm not privy to that information. You'll have to call our special education department." At these times, our geographical and emotional proximity outweighs any lack of opportunities. Of course, in rural schools, we are privy to more than just CSE classifications. We learn the history of each student, which frequently includes what kind of quarterback his or her father was when he was at the same high school. Invaluable information lies within these histories when they are properly deciphered. And, we learn to use this pool of information to work within the existing system to its benefit.

I cannot say what draws counselors in larger schools together. But rural school counselors seem to find a bond in the common knowledge that we are involved in a little bit of everything and know a little bit about everyone. At a recent conference for rural school counselors, the two most frequently asked questions were: How many

students are in your district? And, are you the only counselor? From our unique experiences, we know the irony of counseling in a rural school. While the community is isolated geographically, school counselors are not isolated at all. Rather, we are the locus for anything that even remotely relates to counseling. This irony creates the foundation for realizing the opportunities inherent in the obstacles that we face.

Responsibilities of Rural School Counselors

All school counselors participate in counselor education programs and practicums that prepare us, more or less, for the general tasks we face in a school setting. However, the responsibilities of *rural* school counselors differ from those of their suburban and urban counterparts on two significant levels: the delegation of responsibility and nature of responsibility to the school's community.

When I completed my practicum in an Upstate New York "city" high school, I worked with three counselors who each had a portion of the school's 800 students and were solely responsible for certain tasks. For example, one counselor handled college applications and senior transition, another organized standardized testing and vocational school registration, and the third worked with the district's special education population. Larger systems, of course, further segment both authority and control of counseling tasks.

Today, I am the only high-school-level counselor in my school system. Although I share many general guidance-related tasks with the district's elementary school counselor, all high-school-specific responsibilities are entirely mine. Obviously, all rural

schools are subject to restrictions in counselling personnel. Because of our skill in handling varied responsibilities, we have been referred to as "jugglers" (Worzbyt & Zook, 1992). At any moment, we may be called on to act as testing administrator, truant officer, college admissions counselor, registrar, employee assistance counselor, guidance computer specialist, crisis counselor, special education facilitator, financial aid specialist, drop-out preventer, and even locker assigner.

This seemingly overwhelming array of tasks is somehow manageable in the rural setting. Not only are our numbers small, but we *know* our students and their families. In a crisis, we spend less time trying to learn the players. A home visit, though not necessarily pleasant, will probably be in a neighborhood with which we are familiar and with parents we have met. Annual scheduling is made easier by an awareness of each student's strengths and weaknesses.

Beyond our tangible job responsibilities, rural school counselors have a responsibility to the community in which we work. In some aspects, this responsibility is not much different than it would be in an urban community. As school counselors, we try to prepare students—socially, academically, and vocationally—for their lives beyond high school. And, of course, all school counselors need to be aware of the community's expectations and limitations for its graduates.

In rural districts, school counselors must make students (many of whom have rarely left the county) aware of the possibilities beyond their community while helping them recognize the strengths within their community. Many rural students see a one-

way road out of town. As one counselor noted, students in rural schools simultaneously seek a "passport" out of their county and yet are wary of leaving (Holehouse, 1991). In my district, I either see students who believe they will never leave, or others who want to leave and never return. It is our responsibility to remove this "either/or" mindset and create more flexible options. Many parents and community members are wary of efforts to encourage students to go to college, fearing that the community will lose its younger generations. We have a responsibility, then, to the community to develop students' feelings of pride rather than alienation toward their town.

In keeping with the paradox that defines rural school counseling, our most important responsibility is to balance the district's limitations with the strengths inherent in the counselor's role. For example, a glaring deficiency in many rural schools is the low rate of college attendance among students. While we cannot compensate for all of the opportunities that are lacking—such as Advanced Placement courses, historical family college attendance, and exposure to culture outside of the community—we can use our flexibility, autonomy, and in-depth knowledge of students to provide high-school-to-college transition programs and one-on-one college coaching to fit individual student needs. Using what resources we have, we can maximize our students' opportunities, even if we cannot alter their obstacles.

Expectations for Us

Once again, the combination of a rural school counselor's visibility within the community combined with the community's isolation defines the parameters of the

expectations of us. Rural school counselors are like general practitioners; we cannot afford to specialize. In terms of both student numbers and funding, we cannot afford many of the focused programs of larger schools (Rose-Gold, 1991). Furthermore, rural communities expect us to be versed in everything. This expectation frequently develops because county social service agencies and "local" community colleges are miles away and particularly inaccessible to those without transportation. Like counselors in other setting, we rely on our ability to make referrals, but this is a tenuous resource when we know that our students and their families have little access to the referred agencies. We are expected to be the bridge between families and the resources beyond their geographical reach.

Not only are we expected to fill the gaps in accessible services, but we are expected to be accessible ourselves. This expectation is one of our best public relations tools. Through our inherent visibility, we can be accessible while boosting confidence in our intentions to help the community as a whole. For example, we can hold an impromptu parent conference at a local grocery store. By delivering financial aid forms to a parent working in a local bank, we can increase confidence in our program. As the most accessible service provider, we frequently are called on to assist students after they have graduated. Because we may be the only source for information on jobs, colleges, registration procedures, and financial aid, it is imperative that we continue to offer guidance to people outside our caseload.

Students' expectations of us tend to vary from student to student, and, as in any coun-

seling setting, their attitude toward us depends largely on how we portray ourselves. Students in rural schools bring us a wonderful advantage in establishing our role. Because they have grown up in an atmosphere of openness, where, for better or worse, much of a family's history is public knowledge, rural students are less wary of opening themselves up to a counselor. We have fewer defenses to fight. Students spend less time telling us their history and more time telling us where they are now.

However, this familiarity presents us with two obstacles. As in any close-knit community, students in rural areas sometimes carry seemingly indelible "labels" to which they assume we will subscribe. They believe that we will have the same expectations for them, high or low, that the rest of the community has. This obstacle also appears when working with a group of students who may have a hard time seeing beyond the labels they know each student carries. Confidentiality is another difficult issue when counseling a group of students. Because many personal issues seem to be public knowledge, an atmosphere of confidentiality can be difficult to instill and requires a greater emphasis when initiating a group.

Problems Addressed by Rural School Counselors

Almost weekly, the news tells stories of violence and race relations in urban and suburban schools. It is much easier to find a journal article addressing research or applications for problems in urban schools. Occasionally, an instance of violence in a rural school makes headlines, but many of

the issues we face daily remain relatively unspoken. An analysis of research on rural schools shows that "a preoccupation with suburban and particularly urban schools has long diverted our attention from academic life in rural America" (McNergney & Haberman, 1988). This disparity in attention is disconcerting because more than half of America's schools are rural, and logic alone should tell us that rural students face the same family, social, academic, and emotional problems that youth all over the country are facing. Rural schools do not lack problems; they lack public voice and visibility.

People seem genuinely surprised when I discuss some of the issues facing rural students and, consequently, their counselors. It seems that the bucolic landscape of a rural town is equated with interpersonal tranquility, just as the chaos of a city is assumed to correspond with interpersonal confusion. Those of us who see rural students every day know that they are faced with deteriorating family structures, boredom, adolescent pregnancy, drug use and abuse, incest, sexism, depression, eating disorders, child abuse, transience, and so on. We struggle with solutions to these issues just as all school counselors do. To address every problem we come across in rural school counseling offices seems an insurmountable task. However, a few interrelated issues warrant close consideration because they are pervasive and directly affect so many other issues our students face.

Low academic achievement is one of the most glaring problems confronting students, educators, and counselors in rural schools. We see the effects of absent aspirations every day, such as failing grades and college

attendance rates much lower than the national average of 62 percent (U.S. Department of Labor, 1992). The vast number of factors that affect this issue complicates remediation, and sometimes we are tempted to get caught up in causality. For example, we ask ourselves questions such as, "Does drug use determine low achievement or does low achievement lead to drugs?" Naturally, in rural schools as in any school, no easy answers present themselves.

Low student achievement in rural areas can be traced to several factors. We frequently see students who are not encouraged at home or in the community to strive for excellence in school. We hear parents tell us that "just passing" is good enough. Rural communities are not trying to set low standards for their students. However, parents and, therefore, their children often envision no rewards for doing more than "getting by." They see too few opportunities and too many failed dreams. As a result, rural students lack both intrinsic and extrinsic motivation. Thus, the onus is on us not only to teach students their outer limits of achievements, but also to show them the rewards. Tangible rewards, such as increased opportunities, can be demonstrated by bringing in successful and even "mediocre" past graduates. Emotional rewards, such as increased self-worth and empowerment, may need to be taught through small groups that stress personal means of motivation and reward.

Some problems facing our students can be compared more directly to problems facing school-aged children throughout the country. The issue of family functioning and cohesion confronts all students and, therefore, all school personnel. Separation

and divorce are prevalent in rural schools and frequently account for the transience we see in a student's record. Obviously, we face a considerable challenge when a student is in and out of our district every six months to live first with mom and then with dad. These students have unpredictable lifestyles. Even nuclear families can place the burden of control or a parent's emotional problems on a child. It is difficult to help an adolescent to be a student when he or she is forced to be a parent for the rest of the family's children. Such a family is naturally inattentive to the student's emotional and academic needs, compounding our challenges as that student's counselor. Again, in these situations, counselors can take advantage of their accessibility to a rural community. We can mobilize and reward parents through workshops, parent nights, and newsletters. Through these efforts, we hope for parents first to see us as a resource and second to see themselves as responsible for their children's development.

In addition to their geographic isolation, rural communities seem to have a unique kind of poverty. While each rural district faces a different level of poverty, it nonetheless threatens every student's development. On the individual level, we counsel students who demonstrate poverty's insidious effects. One female student in our high school developed anorexia, in part, from a fear that her family's food was insufficient for all of them. The literature on general developmental issues rarely addresses these effects of poverty in rural areas. As a result, rural school counselors need to develop their own awareness.

Perhaps more problematic is the effect that poverty has on students' esteem—for

their school and for themselves. My students estimated the district's poverty to be much worse than it is. This perspective belies their view that their school is somehow inherently of less value than a district where poverty is not so visible. Their perceptions go with them when they leave the district and affect how they compare themselves and their academic preparation to others'. Both real and imagined poverty damage the student's chances by lowering expectations and self-esteem and creating personal immobility. Rural school counselors seek to minimize this immobility as it takes the form of historical disadvantage, cycles of welfare dependence, and lack of self-respect. We can combat poverty in many ways, such as narrowing the gap of disadvantage or increasing awareness about college programs and processes. The more tools we give our students, the less disadvantaged they will be when they leave us.

The Future of Rural School Counseling

School counselors in all settings are being asked increasingly to define and account for what is still a rather mercurial position. In rural schools, counselors cannot afford to allow themselves to be isolated during this process. Despite geographical distance, our commonalities afford us an excellent foundation to strengthen the role of the rural school counselor. At the very least, we owe to ourselves and our districts a self-examination that includes whether we are meeting our own standards and expectations. We can begin by asking ourselves what goals we had set when we began as counselors and how we have modified, reevaluated, or accomplished them in the context of a rural school.

Another way to fortify our role is to share our strategies and be willing to listen to what has worked for others. It is a misperception to believe that in order to share an idea it must be unique or original. Communication also can take a broader but equally valuable form. Telling other rural counselors what practices work in our own school or, perhaps, describing what alterations we have made to old practices provides consistency and strength to the role of the rural school counselor. Conversely, we must avoid negating new approaches with the belief that "that'll never work in our district." If we set an example of risk-taking to initiate change, those around us are likely to follow (Worzbyt & Zook, 1992). Although the risks may be calculated, we should take them both to challenge the belief that rural schools avoid change and to provide the most conducive developmental atmosphere for our students.

A third means of solidifying our role is even more concrete: to form systematic networks with other rural school counselors both in and out of our regions. Through networks, many of which are already established, we can share our ideas for rural school counseling and we can support and supervise one another. Without concerted effort, our isolation can prevent the systematic exchange of professional ideas and feedback. Ideally, we should work toward sharing resources, both personnel and

materials. For example, one district could trade time on an interactive computer system for another district's organized career presentation. The idea of sharing programs is not new to rural schools and has been applied to whole grade levels in schools in some states (Pipho, 1987). Certainly, such an approach could be extended to counseling-related programs. Through rural counseling networks, we can augment our already strong ability to conduct needs assessment and we can begin to dissolve the obstacle of our lacking resources.

We don't need to wait for organized networks, complicated research, or increased material resources to begin to transform the obstacles to our school counseling programs into opportunities. We need only become more cognizant of the ways that we can assess our students' strengths and weakness. We can call a few parents and personally invite them to our next college information evening. Or we can suggest that a few students who are struggling socially have lunch with us. We can make a positive remark to a student that contradicts the label he or she carries. Because rural school counselors have access to this type of information and to this type of contact, we can begin immediately to address our isolation and lack of resources through centrality and awareness.

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Affirming Culturally Diverse Students With a Literature of Their Own

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Though I was born and raised in the hills of East Tennessee, it was not until I was 48 years old and a graduate student at the University of Alaska—Anchorage (UAA) that I discovered Southern Appalachian literature. This delayed discovery of books to which I could relate was hardly the result of a dearth of reading—I have, for as long as I can remember, read at least one book per day. Nor was it because of a lack of information on mountain folk, for anthropologists, educators, missionaries, sociologists, and politicians have written about our people for decades. Until recently, however, these writers were exclusively outsiders, and the stereotypical images they conveyed have left many Americans—even the most educated—with negative perceptions of our people.

Because of my own experience with feelings of isolation and humiliation in college classrooms, I was at first very cautious, then overjoyed, when Dr. Arlene Kuhner, chair of the English Department at the University of Anchorage—Alaska, encouraged me to speak out in graduate classes. To my surprise, here was a professor who seemed perfectly comfortable with the dual roles of

learner/teacher, and her obvious respect for the opinions of her students inspired us to believe in ourselves. Dr. Kuhner's interest in Appalachian culture and literature had a profound effect upon my self-confidence, and my standing before you as a member of the teaching profession today is a direct result of the genuine concern shown by one English professor.

How does a Cherokee/Appalachian woman from Tennessee meet the challenge of inspiring culturally diverse university students in Alaska to begin using intelligent reading strategies—especially when many of those students have not only internalized feelings of their own "inferiority," but also some rather shocking ideas about me, a "hillbilly woman"? During the next few moments, I would like to share some of the teaching techniques I have used in my classes at UAA, and some responses to the literature we have studied; but first, a bit about my students.

A typical class in reading strategies consists of 20-25 students, ranging in age from 18 to 60 and representing a broad spectrum of ethnic and cultural backgrounds. The first class of each semester is a special challenge, for I am greeted by a roomful of silent, unsmiling students whose only bond with each other seems to be their common dislike for reading. Feeling somewhat vulnerable in the face of such misery, I begin, never-

theless, by telling of my own struggle to obtain an education. Then I ask each student to state his/her name and home state, country, or Alaskan village, and I observe as an almost palpable sense of relief seems to replace the tension noted earlier. Each of us, it becomes apparent, is a "minority," and every one of us, including the instructor, has an "accent"!

Now we can discuss more honestly their aversion to reading, and I make the first assignment a "reading autobiography," three to five pages in length. Perhaps as you listen to excerpts from the lives of my students, you will hear some familiar voices . . .

Martha, a Yupik woman from the Kuskokwim Bay area of Western Alaska, writes of the animosity she harbors for white people and their books as a result of having been punished by teachers and missionaries for speaking her own language in school. She is taking this class only as a necessary step in pursuing a degree.

A few weeks later, however, Martha's journal reflects a change of attitude and a visceral response to a reading assignment—not a work authored by an Alaska native, but a poem by Walter McDonald, entitled "Never in My Life." Though McDonald's poem explores communication difficulties between an adult son and his dying father, Martha relates it to an experience in her own life in which she and her children were rescued from a burning house. Resorting to poetic form herself, she begins her journal:

*Never in my life
Have I repaid Bobby Lee...*

And after vivid narration describing the explosion of ammunition within an "Arctic inferno," the "roof lifting off in a February snow," the panic of searching for loved ones, and finally the joyous reunion of victims and rescuers, Martha concludes:

*Bobby Lee is a musher,
Could use a warm hat—
Yet, where do I find time
to stitch together
a warm token of my gratitude?*

For her book review, Martha read *Tisha*, by Robert Specht, and she admitted tearfully in class that she had never realized there were any whites like teacher Ann Purdy (the subject of Specht's biography) who genuinely cared about Alaska natives.

Nineteen-year-old Konstantin wrote in his autobiography of long months away from his family in Russia as he toured the country with his ski team. He confided that his feelings of isolation were intensified when one of his teammates became ill and died suddenly, and that here in America he was resentful of being further isolated because he "must always sit with the dictionary while everyone else watches football."

Konstantin was hesitant to exercise his recently learned English in the classroom, but during a discussion of Letty Pogrebin's essay, "Can Women and Men Be Friends?" he exploded, "I don't understand American culture! If I am with a group of Russian girls (which is perfectly normal in my country), you call me a 'stud,' and if I hang out with my male friends (also very normal in Russia), Americans say, 'Oh, you must be gay!' What is wrong with this country that

you must see every relationship as a sexual one?!"

As a result of Konstantin's unexpected outburst, several of his classmates began reading books on Russian culture, and Konstantin developed an insatiable interest in American short stories.

Racism is not restricted to any particular ethnic group, and literary assignments may evoke student remarks that are not necessarily politically correct. For instance, after reading Richard Schaefer's essay, "American Indians: The Native Americans," a Korean student was quite vocal: "I don't understand all this sympathy for Indians," she said. "The only Natives I've ever seen are the drunks in downtown Anchorage, and I don't feel sorry for people who won't work or get an education or even try to better themselves."

Neither of the two Indian students in class responded to Hyon's tirade, but after class, Sandy, a Tlingit from Southeastern Alaska, quietly asked, "Hyon, would you like to know more about the history of our people?"

By the next class period, Hyon had read several poems by American Indian authors and had begun reading a historical novel on the Tlingit. She openly apologized for her remarks in class the previous week and could hardly contain her admiration for Native American writers!

Semester after semester, I encounter students who profess to hate reading—students who because of skin color, dialect, poverty, or physical disability, have felt marginalized in classrooms where, in many cases, they were humiliated by teachers as well as by peers. My first priority, therefore,

is to provide a "safe" classroom environment for these students.

My next goal is to communicate to each student my faith in him/her. I begin by writing a personal note to each student, responding to reading autobiographies and suggesting one book I think would be of special interest to this particular student. Students continually amaze me with their willingness to examine suggested titles, and the results of this "springboard action" are gratifying.

Consider Robert, a 6'5", 250-pound freshman who had no idea what he wanted to do with his life. "My mother is a teacher and we've always had a nice library," he remarked, "but I'm just a big, dumb football player who made it through high school on my athletic ability. I'm not even sure I should be in college because I *hate* to read."

Two weeks later, Robert confided that he had never in his life read an entire novel, but that he was attempting to read a book by James Michener. My heart sank! How would this young man who has so little interest in reading ever struggle through one of Michener's voluminous works?! The following week, however, Robert came by my office with a Michener paperback in hand. "Mrs. Carney, you must read this book—it's fantastic!" The name of the book? *Sports*.

Michener's book was a watershed experience for Robert and eventually he became fascinated with the history books in his mother's library. Soon his complaint was, "There just isn't enough time for all the reading I want to do." Today, Robert is an honor student at UAA, preparing for a career as a high school history teacher.

Many students, like Robert, need only minimal encouragement, while others seem so convinced of their inability to comprehend literature that they simply give up on formal education. One such student is Rachel, whose resistance to reading during the first several weeks of class was compounded by her refusal to write journals. Her standard excuse was, "I just don't feel anything when I read, so I have no words to write." Recently, however, I received a note from Rachel, thanking me for introducing the class to the writings of Elie Wiesel. "Do you know how it feels," she asked, "to be the only Jewish student in a class of Gentiles at Christmas time? Or to hear students and teachers making anti-Semitic remarks, never guessing that you're Jewish?"

Along with her note, Rachel enclosed an original poem which read, in part:

*At my darkest, loneliest hour of despair,
you tap at my soul—
soothe my withered spirits,
with the very breath of life itself;
a burst of energy, contagious laughter,
stimulating
thought, new creations, yet a humble
vision—
A wise teacher . . .*

Rachel has become not only a prodigious reader, but is also using her creative skills in poetry and painting, though I would be hard pressed to explain all the dynamics of her attitudinal changes, I can strongly

empathize with Rachel's need for affirmation in the classroom.

Thus, students of every conceivable color and ethnic background (representing 14 foreign countries, 18 Alaskan villages, and 12 states in my two most recent classes) are discovering the life-changing potential of good literature. We have some very lively class discussions on works by authors as diverse as Maya Angelou and Jesse Stuart, or Maxine Hong Kingston and William Zinsser. Once their excitement for reading is ignited, these students devour Homer and Shakespeare, Austen and Elliot, just as eagerly as they have the essays, poetry, and short stories served to whet their appetites.

At this point, you may be thinking, "That's all very fine for a region as culturally diverse as Alaska, but how does any of this pertain to me or my students?" I do not mean to suggest that one must offer samplings of literature from every race and culture in order to meet the psychological as well as the academic needs of students. Neither am I advocating the random selection of "multicultural readings" without regard to literary quality or content. I do believe, however, that through the medium of literature some of the bigotry and violence and pain in our society can be alleviated, and that as we teachers of English seek to affirm a growing population of culturally diverse students, we will discover the life most enriched is our own.

Reform in Mathematics Education: What's a Rural or Small School to Do?

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U.S. students should be first in the world in mathematics and science achievement by the year 2000.

This statement should sound familiar. It is the fourth of the six national education goals adopted in 1990 by President Bush and the governors of the 50 states. Furthermore, it is a lofty goal that applies directly to anyone associated with rural or small schools, where the challenge of achieving the goal perhaps becomes even greater.

Newspapers have been filled with disturbing summaries of reports of how poorly U.S. students perform in mathematics and science when compared to their international counterparts. The prevailing rule is that average students in other countries tend to learn as much mathematics as our best students. Based on data from the Second International Mathematics Study (1982), the top 5 percent of U.S. students perform at the level equivalent to the top 50 percent of Japanese students. In turn, the top 1 percent of our students had the lowest scores of the top 1 percent when compared against all

participating countries. These comparisons hold true for students from U.S. schools of all sizes and types (McKnight et al., 1987).

The data are so disturbing that one begins to characterize President Bush's goal of mathematic supremacy as unrealistic and impossible. A decade is a short time. Yet, this view misses the mark. Regardless of any goal and its appropriateness, the message or call for change is clear:

For U.S. students to excel in mathematics and science achievement by the next decade, much more will be required than merely trying harder or tightening outmoded accountability measures. A fundamental restructuring must take place nationwide—changing what is taught, the way it is taught, and how we evaluate the results—and this is needed as rapidly as possible. In a highly decentralized system of education, this is a formidable challenge (Mathematical Sciences Education Board, 1991).

Teachers, administrators, school boards, and parents at rural and small schools must respond to this call for change. No excuses are allowed as students at all schools are at risk.

Using rural and small schools as a context, this article is an overview of the full nature and implications of the call for major reform in mathematics education. After special problems for those associated with rural and small schools are identified, a plan of action will be suggested.

Everybody Counts

Though its historical roots run very deep, the current emphasis on reform in mathematics education was initiated by the text *Everybody Counts: A Report to the Nation on the Future of Mathematics Education* (National Research Council, 1989). Its primary charge is now famous: Mathematics must become a pump rather than a filter in the pipeline of American education. The charge applies directly to those responsible for educating students at rural and small schools, because of the rapid changes in society and vocational opportunities for students. More than at any other time in American history, students from rural areas are being forced to leave their rural environments, learn an entirely new set of job-related skills, and compete on a national rather than a local basis. Each is expected to change jobs at least four or five times during the next 25 years.

Though no data are given specific to small or rural schools, the statistical rule of thumb seems to fit all too well:

... on the average, we lose half the students [at the high school level] from mathematics each year, although various requirements hold some students in class temporarily for an extra term or a year. Mathematics is the worst curricular villain in driving students to failure in school. When mathematics

acts as a filter, it not only filters students out of careers, but frequently out of school itself (National Research Council, 1987).

The situation is much worse for schools (of any size) whose populations are predominantly either poor economically or a racial minority (Black, Hispanic, or Native American).

To succeed in this increasingly complex and technological world, students who graduate must be mathematically literate. That is, they must be both mathematically empowered and confident in their use of this power. In turn, *Everybody Counts* claims that the educational programs provided by schools (K-12) for these students need to comply with certain assumptions:

- Mathematics curricula at all levels must introduce more of the breadth and power of the mathematical sciences (p. 43)
- Self-confidence built on success is the most important objective of the mathematics curriculum (p. 45)
- America needs to reach consensus on national standards for school mathematics (p. 46)
- Appropriate use of calculators enhances children's understanding and mastery of arithmetic (p. 47)
- All high school students should study a common core of broadly useful mathematics (p. 49)
- All students should study mathematics every year they are in school (p. 50)

- Effective reform requires strong leadership by teachers, parents, professionals, and politicians (p. 80)

It is hard to argue with any of these assumptions; unfortunately, it is much harder for a school to accept them as valid and then build supportive educational programs.

The magnitude of the necessary changes is onerous. Goals and objectives need to be changed. Curricula at all levels need to be changed, as do instructional approaches at all levels. Attitudes and beliefs of teachers and parents towards what students can do and learn in mathematics need to be reformulated. Teachers need to be revitalized and empower themselves in the new mathematics. Assessment goals and devices need to be changed. The dynamics in how administrators, teachers, parents, and students work together in an educational community need to be changed.

During the decade of the 1990s, several "difficult transitions" have begun and need to occur if these changes are to be possible and successful:

Transition 1: The focus of school mathematics is shifting from a dualistic mission—minimal mathematics for the majority, advanced mathematics for a few—to a singular focus on a significant core of mathematics for all students.

Transition 2: The teaching of mathematics is shifting from an authoritarian model based on "transmission of knowledge" to a student-centered practice featuring "stimulation of learning."

Transition 3: Public attitudes about mathematics are shifting from indifference and hostility to recognition of the important role that mathematics plays in today's society.

Transition 4: The teaching of mathematics is shifting from preoccupation with inculcating routine skills to developing broad-based mathematical power.

Transition 5: The teaching of mathematics is shifting from an emphasis on tools for future courses to greater emphasis on topics relevant to students' present and future needs.

Transition 6: The teaching of mathematics is shifting from a primary emphasis on paper-and-pencil calculations to full use of calculators and computers.

Transition 7: The public perception of mathematics is shifting from that of a fixed body of arbitrary rules to a vigorous, active science of patterns.

(National Research Council, 1987)

If left to run their own course, the reality and extent of these seven transitions will vary throughout the United States. Teachers and administrators at rural and small schools need to take an active, leadership role by building both an atmosphere that encourages each of these transitions and an educational program that capitalizes on the progressive implications of the transitions collectively.

Standards: Curriculum, Evaluation, and Teaching

The National Council of Teachers of Mathematics (NCTM) has responded to the

call for national leadership in the reform movement in mathematics education by preparing two documents that are extremely important. Teachers at rural and small schools must carefully consider both documents, which attempt to establish standards. The two documents should become the basis of all discussions and decisions regarding curricula, assessment, and instruction.

The first document, *Curriculum and Evaluation Standards for School Mathematics* (NCTM, 1989), focuses on the importance and development of mathematical literacy (K-12) by articulating five general goals for all students:

- Learning to value mathematics
- Becoming confident in one's own ability to do mathematics
- Becoming a mathematical problem solver
- Learning to communicate mathematically
- Learning to reason mathematically

In turn, the document discusses 54 standards separated into four categories: grades K-4, grades 5-8, grades 9-12, and evaluation.

Each standard includes a statement regarding the mathematics involved, a brief description of possible student activities representative of that mathematics, and a discussion of instructional examples. Together, the standards build "a broad, coherent vision of schooling," which is quite different from that found in most classrooms today:

Learning should engage students both intellectually and physically. They

must become active learners, challenged to apply their prior knowledge and experience in new and increasingly more difficult situations. Instructional approaches should engage students in the process of learning rather than transmit information for them to receive . . . (p. 67)

Students will perform better and learn more in a caring environment in which they feel free to explore mathematical ideas, ask questions, discuss their ideas, and make mistakes...[these] standards outline a curriculum that attempts to give all students the opportunity to appreciate the full power and beauty of mathematics and acquire the mathematical knowledge and intellectual tools necessary for its use in their lives. (p. 69)

In developing the standards, NCTM carefully considered what it means "to do" and "to know" mathematics, especially in an increasingly technological world. The resulting standards reflect both the constant availability of calculating technologies and the need for establishing connections of "ideas and procedures both among different mathematical topics and with other content areas."

Directed at teachers, administrators, and policymakers, the 14 evaluation standards are aimed at producing information that can guide decisions regarding both the quality of the overall mathematics program and the effectiveness of instruction. Because of the current importance of standardized testing and its possible direction/misdirection of the curriculum, NCTM suggests that "evaluation is a tool for implementing the *Standards and effecting change systematically*" (p. 189).

The second document, *Professional Standards for Teaching Mathematics* (NCTM, 1991), establishes standards for what teachers of mathematics must know and be able to do in their classrooms. In turn, the implications of these standards are directed at both colleges/universities that prepare teachers and those currently teaching mathematics (K-12). Again, in terms of their varied roles and responsibilities, both administrators and teachers at rural and small schools need to consider carefully these *Standards* and their implications for staff decisions and development.

The *Professional Standards for Teaching Mathematics* builds its arguments for change on two premises:

- Teachers are key figures in changing the ways in which mathematics is taught and learned in schools.
- Such changes require that teachers have long-term support and adequate resources.

In turn, the vision of effective teachers of mathematics (K-12) is a cadre of caring professionals who are able to:

- Select mathematical tasks to engage students' interests and intellect
- Provide opportunities to deepen students' understanding of the mathematics being studied and its applications
- Orchestrate classroom discourse in ways that promote the investigation and growth of mathematical ideas
- Use, and help students use, technology and other tools to pursue mathematical investigations

- Seek, and help students seek, connections to previous and developing knowledge
- Guide individual, small-group, and whole-class work

(NCTM, 1991, p. 1)

Teachers are being asked to assume many roles—intellectual coach, role model, consultant, moderator, interlocutor, questioner—all quite different from the role of teachers in today's classrooms (i.e., that of the purveyor of mathematical information). The focus of the next decade is the creation of realistic mechanisms for helping teachers successfully make this shift in roles.

Agenda for Action for Rural and Small Schools

The call for reform is clear, with rural and small schools directly involved in the change process. Due to their size and unique nature, they can take a leadership role in the exploration and implementation of potential "next steps." The worst possible scenario is for the administrators and/or teachers at rural and small schools to hide unnoticed behind their inaction, contending that the reform effort is just one more crest in the sinusoidal wave of general education reform. Schools that wait or ignore the reform efforts are denying their students access to the power of mathematics and its fringe benefits such as self-confidence, career opportunities, and purposeful learning.

Several steps of active involvement in the reform movement can be suggested for education at rural and small schools, each designed to address their special concerns. Research has carefully documented these concerns: educational isolation, limited

staff development opportunities, high degree of role/goal ambiguity, teacher burnout, lack of financial support by local industry, lack of access to university-level programs, changing societal patterns that disrupt traditional attitudes, and over-extended administrators.

The key is to accept these special concerns as part of the problem and direct the change effort at producing solutions that work for the rural or small school as well. Collectively, the suggested actions can produce a viable mathematics curriculum (K-12), an empowered teaching force, mathematically literate students, and a supportive school community.

Action 1: Form cross-grade discussion groups (involving teachers, administrators, and parents) that focus on understanding and interpreting the reform movement in mathematics education within the context of your particular school situation. To have maximal effect, the groups should be voluntary, meet monthly, and continue yearly. Relevant documents such as *Everybody Counts* and the two *Standards* should be read, discussed, and then shared with other stakeholders in the school. The goal is to develop a support structure (initial size is unimportant) that can serve as the catalyst for change.

Action 2: Collect data that reflects the teaching and learning of mathematics at you school. Several key questions need be raised: Is your school a pipeline or a filter? Are all of your students being given full access to a challenging and powerful mathematics program, thereby becoming mathematically literate? What are the mathematical dispositions of both your students and teachers (K-12)? What

is the goal and nature of your assessments of student mathematical learning (school level, grade level, and classroom level)? Each question defines the type of data that needs to be collected and interpreted. Often, a question and its associated data will open the door to many more questions. The overall goal is not to make decisions or major adjustments at this stage, but rather to build an information basis for further actions.

Action 3: Educate, support, and challenge your teachers of mathematics.

This action is perhaps the most important, since teachers are recognized as the "key to success" in the reform effort. The education process must include an understanding of the need for reform, an understanding of the changes being suggested, an increased knowledge of mathematics, experiences with new assessment techniques, and practice with new teaching strategies. To maximize the process and build communication, the inservice experiences should be K-12, long-term, and involve administrators whenever possible. If necessary, several rural or small schools can collaborate on the design and implementation of these inservice experiences to minimize financial costs.

One sign of support for teachers of mathematics is institutional memberships in professional organizations, such as the National Council of Teachers of Mathematics, the School Science and Mathematics Association, and state-level affiliates. Their respective journals should be routed and then kept visibly accessible. Other signs include the encouragement and financial support of teachers to attend mathematics conferences, instructional

workshops, and special summer courses offered by a university. Finally, teachers should be given release time to attend their colleagues classes, visit teachers in other schools, or meet within a school as a mathematics department (K-12).

Action 4: Educate the administrators responsible for the school system.

Because of the many hats they wear in a rural or small school, administrators need to be brought on board as allies, curricular leaders, and sources of support (moral and financial). A school's administration needs to understand the need for reform in mathematics education and its magnitude in order for the change process to occur. In addition to providing the support system necessary for any suggested changes, they need to accept responsibility for the overall evaluation of the school program in line with the *Standards*, which includes the evaluation of curricular programs, student learning, and teacher professionalism.

Action 5: Keep parents in your school community informed. Communicate the nature of the problem and suggested solutions by scheduling information meetings, sending out newsletters, including parents in discussion and decision-making groups, and writing articles for the local newspaper (if one exists). Parents easily become concerned if unexpected changes occur, especially if the changes appear to negate their own individual views of what it means to learn mathematics. A key goal is to gain parents as reinforcing allies in your effort to empower all students mathematically.

Action 6: Adopt and adapt text materials that reflect the suggested approaches

to doing, learning, and teaching mathematics. Let the goals and objectives for your mathematics curriculum direct the adoption process, not the reverse. It must be understood from the beginning (by teachers and administrators) that textbooks must be supported by sets of manipulatives, resource texts, computing technologies, and software. Also, consider carefully research summaries (e.g., Silver, 1985; Grouws & Cooney, 1988) concerning how students learn quality mathematics best.

Teachers must be given both individual and group time to work with these materials. A viable model is an extended inservice workshop prior to a school year, bi-weekly meetings of teachers by grade level throughout the year, and an extended inservice workshop at the end of the school year. Teachers must be encouraged to modify the materials, develop support materials when necessary, and try creative approaches to using the materials.

Action 7: Adopt new assessment goals, procedures, and instruments. Assessment changes should not only be compatible with instructional changes, but also reflect measures of the effect of a program on a schoolwide basis. Again, parents must be kept informed to prevent surprises and misunderstandings. Teachers also must be directly involved in any changes in assessment, because assessment that occurs in the classroom should focus on gathering information that directs subsequent instruction.

Action 8: Keep all members of the school community informed of other reform activities in mathematics education

that occur outside of your local school setting. Often, activities at other schools or on a state/national level can provide new direction and further impetus to ongoing activities at your school. Even more important, this information provides a sense of shared ownership and participation in the reform efforts in mathematics education on a much broader level, thereby reducing the sense of isolation associated with rural and small schools.

Though each rural and small school needs to respond with a plan specific to its unique situation, it is hard to imagine an appropriate agenda for action that does not incorporate these eight actions. By working together, positive changes will occur and

encourage even more changes. A decade is a long time, yet many significant changes must occur before we come close to shifting our focus from a local level to a national level to an international level. Though the six education goals are important, our progress should be measured more by the *Professional Standards for Teaching Mathematics*:

If we make a long-term commitment to the standards, . . . if we approach the task with the will to persevere, if we are critical of the steps we take, . . . we will make progress toward the goal of developing mathematical power for all students.

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