

RURAL SCHOOL CONSOLIDATION REPORT

History
Research Summary
Conclusions and Recommendations

Prepared for the National Rural Education Association
Executive Board
April 1-2, 2005

NREA Consolidation Task Force
Joe Bard, Clark Gardener, Regi Wieland

Rural School District Consolidation

The consolidation of rural schools in the United States has been a controversial topic for policy-makers, school administrators, and rural communities since the 1800s. At issue in the consolidation movement have been concerns of efficiency, economics, student achievement, school size, and community identity. Throughout the history of schooling in America, school consolidation has been a way to solve rural issues in the eyes of policy makers and many education officials. Today, faced with declining enrollments and financial cutbacks, many rural schools and communities continue to deal with challenges associated with possible school reorganizations and consolidations.

This paper, developed by the NREA Consolidation Task Force, provides a review of the literature on rural school consolidation, defines consolidation, addresses current research and issues related to consolidation with respect to school size, economies of scale, and student achievement, and concludes with proposed recommendations for the NREA Executive Board.

Factors Leading to Interest in Consolidation

As early as the mid 1800's, consolidation of schools was thought to provide students a more thorough education by eliminating small schools in favor of large ones (Potter, 1987). Legislation providing free public transportation was passed by the state of Massachusetts in 1869, paving the way for consolidation of rural schools. The invention of the automobile and paving of roads allowed students to travel longer distances in shorter amounts of time, decreasing the need for the many one-room schools built by early settlers.

The rise of industry in urban areas in the late nineteenth century contributed to the school consolidation movement. The prevailing belief during the industrial revolution was that education could contribute to an optimal social order using organizational techniques adapted from industry (Orr, 1992). Early school reformers and policy makers felt that an industrialized society required all schools to look alike, and began to advocate more of an urban, centralized model of education (Kay, Hargood, & Russell, 1982). Larger schools were seen as more economical and efficient, which was defined in terms of economy of scale. As a result of this thinking, urban and larger schools were adopted as the "one best model," and from this context rural schools were judged deficient.

Along with policies advocating an urban “one best system,” model of education came studies on appropriateness of size. Conant (1959) determined that in order to offer the best possible college preparatory curriculum, a high school should have at least 100 students in its graduating class. Conant stated that the most outstanding problem in education was the small high school, and that the elimination of small high schools would result in increased cost-effectiveness and greater curricular offerings. Many who research trends in school consolidation believe that Conant’s study and subsequent book The American High School Today, contributed much to the move toward school consolidation (Smith and DeYoung, 1988; Pittman and Haughwout, 1987; Stockard and Mayberry, 1992; Walberg, 1992; Williams, 1990).

In addition to policy-makers and education professionals, private businesses, in the interest of financial gain, have encouraged school consolidation. International Harvester Company, a major promoter of school consolidation in the 1930s, produced a catalog with several pages devoted to its promotion of newly manufactured International Harvester school buses (White, 1981). These business- government linkages in support of school consolidation are still evident today. In West Virginia, the legislature appointed a School Building Authority (SBA), to fund capital improvements for school districts. In order to gain approval from the SBA for improvements, districts had to meet mandated enrollment levels set by the state, which forced consolidation of small schools. Once consolidated, schools were then given funds for the construction of new schools or substantial remodeling of existing schools to meet new and larger class size requirements. The public was not in favor of this “forced” consolidation approach, and as opposition began to grow, the governor, a proponent of consolidation and supportive of private industry, responded by appointing a representative from the construction industry to the SBA board (DeYoung & Howley, 1992; Purdy, 1992).

The political climate in which consolidation efforts have flourished has also been based on international competitiveness (DeYoung, 1989; Spring, 1987). Both Sputnik and the Cold War created increased concerns that small high schools, most of which were rural, were not developing the kind of human capital needed to promote national security (Ravitch, 1983). Large schools continued to be touted as the best way to efficiently and effectively educate the nation’s young people. Believing that professionals knew better

about educating children, experts were more interested in centralizing control rather than leaving decisions to members of a local community. “The easiest way to curb the influence of school trustees in these rural districts was to abolish as many districts as possible---or, euphemistically, to consolidate them” (Tyack, 1999, p. 4). Parents and educators in rural communities who were interested in preparing students for life rather than educating them as “human capital” to contribute more to the nation’s well being, were considered backward and not knowledgeable enough to know what was best for education. Cubberly (1914) attested that,

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.

(Cited in Theobald and Nachtigal, 1995, p. 132)

A series of economic downturns in rural areas contributed further to the emphasis on school consolidation. Rural economic decline during the decade of 1970-1980 created more migration toward jobs in urban areas. (Smith, 1974) noted that from 1933 to 1970 the net migration from farms was more than 30 million people. As a result, rural public school enrollment declined and the cost of educating rural students started to rise.

Declining enrollments and increased costs resulted in a financial crisis for many rural school districts. In order to save teacher jobs and maintain quality curricula, some school districts began voluntarily consolidating programs and facilities. The farm crisis of the 1980s led to the loss of family farms, as modern farming techniques depended increasingly upon profits possible only through large-scale operations. The economic decline in agriculture created a ripple effect on non-farm economies in rural communities, again resulting in declining school enrollments and the loss of more rural graduates to urban areas where work was more plentiful (Lasley, et al, 1995).

The driving force behind school reform in the 1980s was the Nation at Risk report. As society became more complex, proponents of educational reform continued to echo previous thoughts that schools should be producing students who had the skills and values to contribute to a national, social economic order (DeYoung & Howley, 1992). The justification for closing or reorganizing rural schools is still prevalent in the minds of policy-makers and educational professionals today, and a major concern for many rural

communities (DeYoung & Howley, 1992). Theobald (2002) states,

....consolidation has been a defining characteristic of educational history throughout the twentieth century. This characteristic was driven by a powerful assumption, albeit an unsubstantiated one, concerning the best way to go about the business of public schooling. And that assumption is that “bigger is better.” Throughout the century, this unsupported educational policy was vehemently espoused even though it was demonstrably unkind to communities.” (Cited in Theobald, 2002).

Though consolidation has been and continues to be a factor in public education, it has not occurred without concerns for both the students and communities affected. Studies found that when community interests were ignored during consolidation proceedings, educational absenteeism and community disintegration increased. Schools were no longer seen as contributors to the local community, as the “best and brightest” students were leaving for higher paying jobs in urban areas (Henderson & Gomez, 1975). Researchers who attempt to disprove the notion of “bigger is better” argue that school consolidation actually creates greater hardships for families as children leave familiar neighborhoods, additional taxes are levied to support mergers and larger facilities built (Krietlow, 1966; Sher, 1992; DeYoung & Howley, 1992; Howley & Eckman, 1997).

Consolidation Defined

Researchers and the public use a variety of terms to describe the consolidation process. Fitzwater (1953) defines consolidation as “the merging of two or more attendance areas to form a larger school” (cited in Peshkin, 1982, p. 4). Reorganization involves “combining two or more previously independent school districts in one new and larger school system” (p. 4). In Kansas, efforts to decrease the number of schools in the 1960s were referred to as unification (House Bill 377). Reorganized school districts were called “unified school districts” as opposed to consolidated districts or reorganized districts.

Despite the terminology chosen by researchers or bureaucrats, most community members continue to use the term “consolidation” when referring to any type of school unification, reorganization, or merger. Policy-makers and others, including the press frequently attempt to clarify the differences in the terminology. A news article in the Protection, Kansas Press in 1964 responded to community concerns about consolidation by emphasizing that the 1964 vote on unification would not close any Protection schools,

and was a “unification, not a consolidation (Herd & Wait, 1964). However, thirty-five years later, residents still spoke of the school district reorganization as a consolidation. It appears to be the assumed “definition” for most rural community residents. Regardless of the term defined in the literature, the perception by many affected by the consolidation or reorganization process is that “someone wins and someone loses” as a result of the process.

Resistance to Consolidation

The literature on community reaction to consolidation has focused on community resistance to school mergers or closings. Phrases such as “loss of community identity” or “loss of community attachment” are common (Peshkin, 1978; Fitchen, 1991; Biere, 1995; Nachtigal, 1982; Luloff and Swanson, 1990). Peshkin’s study of the Mansfield, Illinois community illustrates the intensity with which many communities guard the identity affirmed by schools. “Mansfield has a hard enough time now keeping on the map. If they moved the school, it’d be much harder. People go to things at school now even if they don’t have kids in school. This is a football town and people know the kids. I’d hate to see consolidation. I like things the way they are” (Peshkin, 1978).

Studies on planning for consolidation are scarce, and deal mainly with planning from an administrator’s point of view. A 1995 study of Oklahoma superintendents on school consolidation planning revealed that successful consolidation strategies involved joint student body activities, a consolidation plan, maintaining all school sites, and community meetings designed to allow open communication were “vital to the consolidation process” (Chance & Cummins, 1998). A 1992 case study of a school district consolidation found that lack of understanding of local culture resulted in resistance from community members about consolidation issues (Ward & Rink, 1992). A study of eight communities in North Dakota that had experienced school consolidations showed that the most important factor in easing the process of consolidation was holding public meetings (Sell; Lesitritz; & Thompson, 1996).

The dialogue surrounding school consolidation has, to some extent, become polarized. At one extreme, state policy-makers and, to a lesser extent, school officials point to the inefficiencies and more limited curricula common to small schools. At the other extreme, community members argue that the loss of the school means the loss of

the community, and the discussion continues to be cast into a win-lose framework.

Research Questions the Appropriateness of Consolidation

Researchers of school consolidation are divided on the merits of the consolidation movement. Proponents of consolidation believe that curricular and financial advantages outweigh the negatives of school closings (Nelson, 1985). Critics of consolidation argue that “under the rubric of school improvement, many places that once provided school no longer do; for they have been improved out of existence” (DeYoung & Howley, 1992, p. 3).

Sher (1992) reports that “the majority of research on school consolidation was done by those wanting to perpetuate the urban, industrialized mind set, and to convince others to believe that consolidation was worthy “rather than try to find some objective truth” (Sher, p. 75. According to Sher and Tompkins (1978), the consolidation movement was considered successful by some because no one in the literature had challenged the research that bigger schools gave a more quality education. “Education professionals genuinely regarded consolidation as a panacea, and consequently displayed considerable zeal in developing consolidation plans, marshaling favorable evidence, and lobbying in its behalf with state and local policymaking bodies” (Sher & Tompkins, p. 1

Numerous projects have been undertaken to bring attention to the uniqueness and strengths of rural and small schools. In the 1950s, the Rocky Mountain Area Project (RMAP) in Colorado was developed to show that some schools were “necessarily existent” by virtue of their geographic location (Nachtigal, 1982). Accessing funds from the Ford Foundation and housed in the Colorado State Department of Education, RMAP assisted schools that were necessarily existent with teaching strategies, correspondence classes, and technology. However, funding caused these schools to adhere to guidelines not necessarily developed from local schools and communities. Twenty-two states made the idea of necessarily existent small schools law, but nearly all have ceased to exist because external funds were removed, personnel changed and the “one best system” model of schools prevailed.

During the same decade, Columbia University research showed that small schools had “strengths of smallness” not evident in large schools (Nachtigal, 1982). The thought was that not only were small schools necessary, their strengths included a higher number

of students involved in extra curricular activities, higher numbers of students taking academic courses, more attention by teachers due to lower pupil teacher ratio, and students who had a close connection to their communities. Nachtigal says that research is affirming these strengths. Research does not appear to support the assumption that the quality of school life is better when small schools consolidate or with larger schools. In fact, one thought Nachtigal presents is that when consolidation happens, board of education members are responsible for more constituents than before.

The relationship of the public school to the community and the role of the school in sustaining the community have also been a concern for those opposed to consolidation efforts. Ilvento (1990) says that the public school is important to the rural community both socially and economically. Socially, schools in rural areas tend to be the only source of social activity. Economically, the school many times is the largest employer in a rural community. The school can also be the focus of many community activities as well as school activities. Ilvento stresses the importance of connecting the rural school to the community through the curriculum, and the need for flexibility in policies to meet local needs.

Although opponents of school consolidation can be “zealous” in their collection and interpretation of data, studies over the past twenty years have created a more balanced analysis of school consolidation. Fox’s 1981 study of educational costs as a function of school size yielded a U-shaped curve in which both the very small and the very large schools were the most expensive to operate. Urban school administrators themselves have turned to creating “schools within schools,” concluding that large schools create an impersonal climate that contributes to school failure for some students.

Recent Interest in Consolidation

Despite evidence supporting the advantages of small schools, the situation for small and rural schools continues to be a topic of concern. Declining enrollments and budget constraints are forcing remaining rural school districts and communities to face the possibility of consolidation

State policy makers and reformers continue to debate and even promote issues of school consolidation, although strategies have been developed that, on the surface, allow local choice. “Although most citizens approved of local control, in the 20th century most

elite reformers did not. These professional leaders wanted to dampen, not increase, lay participation in democratic decision making” (Tyack, 1999, p. 2). As an example, Purdy (1992) argued that the West Virginia School Building Authority was a tool used by the legislature to force consolidation on West Virginia schools.

As states look toward future enrollment declines, many have reduced the number of rural districts in efforts to meet challenges associated with projected budget deficits. Manzo (1999) stated that in Wyoming, which had 48 districts, legislators proposed elimination of 10 more districts in order to deal with budget concerns. Districts in Iowa have been reduced from 438 to 377 in the past 14 years. According to a recent report in West Virginia on school consolidation, over 300 schools have been closed since 1990 (Eyre & Finn, 2002). The Kansas legislature made a decision to undertake a school district boundary study in 2000 and the current mood of the legislature in 2005 is to re-examine consolidation issues. Regardless of the motive, rural school districts continue to be under scrutiny as to their academic and economic effectiveness.

Recent Studies on School or District Size

Lawrence et al. (2002) indicated that a district should have an enrollment of 4000 to 5000 students as a maximum. Imerman and Otto (2003) recommended that school districts should not fall below an enrollment of 750 students. Most of the studies cited were based on per pupil costs. Augenblick and Myers (2001) reported that in order to offer a safe and nurturing environment, an appropriate curriculum, and extracurricular activities, a district should have an enrollment between 260 and 2,925 students. Other research reviews suggest a maximum of 300-400 students for elementary schools and 400-800 for secondary schools. If the study focused on social and emotional aspects of success, then the research indicated that no school should be larger than 500. Research by Howley and Bickel (2000) indicated that the lower the socioeconomic status of the students and/or district, then the school enrollment should be small. From reviewing the literature, it appears that there is not an ideal or optimal district or school size that is universally agreed upon.

Economies of Scale

In studies from 1960 through 2004, there has not been evidence that consolidation of small districts into larger districts has necessarily reduced fiscal expenditures per pupil (Hirsch, 1960; Sher and Tompkins, 1977; Valencia, 1984; Jewell, 1989; Kennedy et al., 1989; Eyre and Scott, 2002; Reeves, 2004). The Rural School and Community Trust concluded:

“School consolidation produces less fiscal benefit and greater fiscal cost than it promises. While some costs, particularly administrative costs may decline in the short run, they are replaced by other expenditures, especially transportation and more specialized staff. The loss of a school also negatively affects the tax base and fiscal capacity of the district. These costs are often borne disproportionately by low-income and minority communities.”

Mary Anne Raywid concluded that, “When viewed on a cost-per-student basis, they (small schools) are somewhat more expensive. But when examined on the basis of the number of students they graduate, they are less expensive than either medium-sized or large high schools.” (1999, p.2, EDO-RC-98-8). Funk et al. (1999) indicated that dropouts are three times more likely to be unemployed; two and a half more likely to receive welfare benefits, and over three times more likely to be in prison than high school graduates with no college. Therefore, “small schools help increase the number of economically productive adults and cut government costs.” (The Rural School and Community Trust, 2004).

A study by Lyson (2002) looked at the fiscal impact and socioeconomic effects of consolidation on communities in New York, most of which once had a school. He found that towns that lost their school had a lower social and fiscal capacity compared to towns that maintained their schools. Other reports have also indicated that when a community loses a school, the tax base and fiscal capacity of the district is negatively affected. Most successful consolidations between districts have maintained a school in each town involved. In many cases, the high school has been located in one town while the elementary and/or middle/junior high was located in the town of the second consolidated

district. Therefore, both towns maintain a school which lessens the socioeconomic and fiscal impact of the consolidation.

Bussing students to and from schools adds another dimension to the consolidation issue. Lu and Tweeten (1973) found that achievement scores were reduced by 2.6 points for fourth-grade students or every hour spent riding a bus. High school students were not affected as adversely as students in elementary school, losing only 0.5 points per hour spent riding a bus.

Eyre and Finn (2002) tell the story of a 4 year-old preschooler who rides the bus for 1 hour and 20 minutes each way—a total of 2 hours and 40 minutes a day. The child leaves home at 6:30 and gets home at 4:40 in the afternoon. In the winter the students are leaving their homes in the dark and returning in the dark.

Jim Lewis (2004) writing for Challenge West Virginia reported that students and parents observed that consolidated schools, with their larger enrollment, caused some students to feel anonymous resulting in students getting lost, falling behind and dropping out. Those students who are not particularly outgoing, who don't cause discipline problems or are particularly outstanding in some area seem to disappear and fall through the cracks. Others, because of the autonomy, become anxious, unsure about themselves because of the separation from family and friends, often do not do well academically, become discipline problems, and cause them to give up on school and drop out.

Mr. Lewis (2004) further states that closing of community-based schools has taken a real bite out of extracurricular activities. The student must endure the long bus ride to school or drive to school, attend the extracurricular activity, and then either take a late bus home or drive home, tired and exhausted from the activity. Additionally, some will not be able to participate because they would not be “good enough” to make the team, whether it be an athletic activity, band, cheerleader, acting, or being on a forensic team.

These studies and others have concluded that one must consider not only the financial implications, but also the implications of consolidation on student achievement, self-concept, participation in extracurricular activities, dropout rates, and on the community itself.

School Size and Student Achievement

Since there is not a universally agreed upon school or district size, is there evidence that school size does make a difference? A review of the literature certainly seems to indicate that small schools and/or districts have advantages over larger schools and/or districts.

Cotton (1996) built an impressive case for the advantages of small schools by a quantitative study of the literature. Her analysis indicated an advantage for small schools in the following areas: achievement, attitude toward school, social behavior problems, extracurricular participation, feelings of belongingness, interpersonal relations, attendance, dropout rate, self-concept, and success in college among others. Cotton lists eighteen major points as strengths of small schools in the summary and conclusion of the report. Cotton further stated, “the states with the largest schools and school districts have the worst achievement, affective, and social outcomes.”

Research by Cox (2002), Lawrence et al. (2002) and Howley and Bickel (2000) have all indicated a strong relationship between school size and student achievement. Howley (2000) stated that, “Recent literature relating district size to school performance rests almost entirely on a indirect relationship in which socioeconomic status and size work jointly to influence school performance.” Therefore, students from less affluent communities appear to have better achievement in small schools. Darling-Hamond as early as 1998 concluded that four factors affect student achievement: smaller school size (300 to 500 students); smaller class size, especially in elementary schools; challenging curriculum, and more highly qualified teacher (as cited in Picard, 2003).

Conclusions and Recommendations

After a thorough study of the history and research on school consolidation, it is the conclusion of the Consolidation Task Force Committee that NREA continue to support the local decision making process of rural school districts and oppose arbitrary consolidation efforts at the state and local levels. NREA will not support decisions made at the state level that mandate consolidation – this is a violation of local control. Rural communities should make every possible effort to maintain a physical school presence, and rural community and school leaders should take into account every possible variable to decide if “two are better than one.”

The NREA realizes that in some situations, consolidation may be inevitable, as in situations where the population has declined to the point that a quality education cannot be provided to all students. However, rural schools and communities should work together to form strong partnerships, examine all possible variables, and make well-informed decisions based on all possible data before embarking on the path toward consolidation. Each district and each school is unique because of location, culture or size. Before consolidation is considered, districts should look in depth at the implications of fiscal, educational, and community advantages and disadvantages. Consolidation should be a decision by the local school districts. Sher (1988) wrote, “Still, there is no evidence suggesting a compelling reason for the state to intervene by encouraging—let alone MANDATING—such mergers.”

In summary:

- The educational and financial results of state mandated school district consolidations do not meet legislated expectations.
- There is no “ideal” size for schools or districts.
- “Size” does not guarantee success – effective schools come in all sizes.
- Smaller districts have higher achievement, affective and social outcomes.
- The larger a district becomes, the more resources are devoted to secondary or non-essential activities.
- Local school officials should be wary of merging several smaller elementary schools, at least if the goal is improved performance.
- After a school closure, out migration, population decline, and neighborhood deterioration are set in motion, and support for public education diminishes.
- There is no solid foundation for the belief that eliminating school districts will improve education, enhance cost-effectiveness or promote equality.
- Students from low income areas have better achievement in small schools.

References

Altman, Irwin, and Low, Setha M. (Eds.), (1992). Place attachment. New York: Plenum Press.

Anderson, Dina (1993). *A rural perspective on school consolidation in ontario*, Unpublished Doctoral Dissertation. University of Toronto, Toronto.

Augenblick, John, Myers, John, & Silverstein, Justin (2001, January 10). *A comprehensive study on the organization of Kansas school districts*. Prepared for the Kansas State Board of Education in response to RFP Number 00241. Augenblick and Myers, Inc.

Axelrod, Morris (1956). *Urban structure and social participation*. American Sociological Review, 21 (February) 13-18.

Beggs, John J., Hurlbert, Jeanne S., and Haines, Valerie (1996). *Community attachment in a rural setting: A refinement and empirical test of the systemic model*. Rural Sociology 61 (3), 407-426.

Biere, Arlo (1995). *Community change*. In Lasley, et. al's. Beyond the amber waves of grain. Boulder, CO: Westview Press.

Bushnell, Mary (Fall, 1999). *Imagining rural life: Schooling as a sense of place*. Journal of Research in Rural Education Vol. 15, No. 2, 80-89.

Camus (1955). *The myth of sisyphus*. New York: Vintage Books.

Chance, Edward, and Cummins, Craig (Winter, 1998). *School/community survival: Successful strategies used in rural school district consolidations*. Rural Educator, Vol. 20, No. 2, 1-7.

Conant, James (1959). *The American high school today: A first report to interested citizens*. New York: McGraw Hill.

Cotton, Kathleen (1999) *School size, school climate, and student performance*. School Improvement Research Series. Northwest Regional Educational Laboratory, Portland, OR. Retrieved from Northwest Regional Education Laboratory Web site: <http://www.nwrel.org/scpd/sirs/10/c020.html>

Cox, David N. (January 2002). *Big trouble: Solving education problems means rethinking super-size districts and schools*. Retrieved Jan. 4, 2005 from the Sutherland Institute. Web site: <http://sutherlandinstitute.org/Publications/FocusonUtah/SmallerDistricts/SmallerDistricts.htm>

Crumbaker, Don (1980). *Reorganization of school districts: Late 1950s to present time*. Paper presented at Kansas State University Rural and Small School Conference, Manhattan, KS.

Cubberly, Elwood P. (1914). *State and county educational reorganization*. New York: Macmillan.

DeYoung, Alan (1989). *Economics and American education: A historical and critical overview of the impact of economic theories on schooling in the United States*. New York: Longman Press.

DeYoung, Alan (1995). *The life and death of a rural American high school: Farewell Little Kanawha*. New York: Garland.

DeYoung, Alan J., & Howley, Craig B. (1992). *The political economy of rural school consolidation*. (Report No. RC-018-660). (ERIC Document Reproduction Service No. ED 347-018)

DeYoung, Alan J., & Kannapel, Patricia J. (Fall, 1999). *The rural school problem in 1999: A review and critique of the literature*. Journal of Research in Rural Education, Vol. 15, No. 2, 67-69.

Digest of education statistics. 1997. Table 90. *Public school districts & enrollment by size of district*. 1988-89 to 1995-96.

Eyre, Eric & Finn, Scott. (2002) "Closing costs: School consolidation in West Virginia." *Charleston Gazette*. Charleston, WV. Series on the costs of school consolidation running August 25 and 30, Sept. 8, 12, 24, 29, and Oct. 3 and 6.

Finney, Ross, and Schafer, Alfred J. (1920). *The administration of village and consolidated schools*. New York: Macmillan.

Fitchen, Janet M. (1991). *Endangered spaces, enduring places, change, identity and survival in rural America*. Boulder, CO: Westview Press.

Fitzwater, C.O. (1953). *Educational change in reorganized school districts*. Washington D.C.: U.S. Government Printing Office

Flora, Cornelia Butler, Flora, Jan L., Spear, Jacqueline D., and Swanson, Louis E. (19??). *Rural Communities: Legacy & Change*. Boulder, San Francisco, Oxford: Westview Press.

Fox, W.F. (1981). *Reviewing economies of size in education*. Journal of Education Finance, 6, 3, 273-296.

Funk P. E. & Bailey J. (1999). *Small schools, big results: Nebraska high school completion and postsecondary enrollment rates by size of school district*. Nebraska Alliance for Rural Education.

Gerson, K., Stueve, C.A., & Fischer, C. (1977). *Attachment to place*. In C. Fischer, R. Jackson, C. Stueve, K. Gerson, & L. Jones. Networks and places 139-161. New York: The Free Press.

Glascok, Catherine H. (1998). *Rural districts in crisis: When a community is divided*. Unpublished doctoral dissertation. ED 419 633

Goudy, W.J. (1982). *Further considerations of indicators of community attachment*. Social Indicators Research, 11, 181-192.

Hirsch, W.Z. (1960). *Determinants of Public Education Expenditure*. *National Tax Journal*, 13(1), pp.29-40.

Hobbs, D. (1991). *Rural education*. In Flora, C.B. and Christenson, J.A. (Eds.) Rural policies for the 1990's. Boulder: Westview Press.

Howley, C. (1991). *The rural education dilemma as part of the rural dilemma: Rural education and economics*. In DeYoung, A.J. (Eds.) Rural education: Issues and practice. New York: Garland Publishing, Inc.

Howley, Craig B., & Eckman, John M., (Eds.) (1997). *Sustainable small schools: A handbook for rural communities*, ERIC clearinghouse on rural education and small schools. Charleston, West Virginia.

Howley, Craig (2000). *School district size and school performance*. Rural Education Issue Digest. Retrieved January 2005 from AEL Web site:
www.ael.org/rel/rural/pdf/digest3.pdf

Howley, Craig & Bickel, Robert. (2001). *Smaller districts: Closing the gap for poor kids*. Retrieved March 2005 <http://oak.cats.ohiou.edu/~howleyc/asbj2.htm>

Henderson, Ronald D., & Gomez, J.J. (1975). *The consolidation of rural schools: Reasons, results, and implications*. Paper presented at the Annual Meeting of the Rural Sociological Society (August).

Hunter, A. (1974). *Symbolic Communities*. University of Chicago Press.

Ilvento, T.W. (1990). In Luloff, A., & Swanson, L. (Eds.) *Education and community*. Boulder: Westview Press.

Imerman, Mark & Otto, Dan. (2003, January). *A preliminary investigation of school district expenditures with respect to school district size in Iowa*. Retrieved from the Department of Economics Iowa State University Web site:
www.econ.iastate.edu/research/webpapers/paper-10183.pdf

Jewell, R.W. (1989). "School and School District Size Relationships." *Education and Urban Society*. Feb. 1989, pp140-153.

Kammerzell, Mary Sundby (1994). *Perceptions of community residents toward school consolidation: A qualitative case study*. Unpublished doctoral dissertation, University of Nebraska, Lincoln.

Kasarda, J., & Janowitz, M. (1974). *Community attachment in mass society*. American Sociological Review, 39, (June) 328-339.

Kay, S., Hargood, N., and Russell, R.K. (1982). *The effect of consolidation on fidelity to traditional value systems*. Frankfort: Kentucky State University Community Research Service.

Keith, G. (1970) *Unification in Kansas, A progress report, 1858-1969*. Unpublished Kansas State Department of Education report, Topeka, KS.

Keith, George D. (1970). *Reorganization of school districts in Kansas*. Kansas State Department of Education, Topeka, KS.

Kennedy, Robert L. et al. (Jan. 1989). "Expenditures, MAT6 scores and dropout rates: A correlational study of Arkansas School Districts." ERIC Accession No. ED303910.

Krietlow, Burton W. (1966). *Long-term study of educational effectiveness of newly formed centralized school districts in rural areas*. Unpublished doctoral dissertation, University of Wisconsin.

Lasley, Paul, Leistriz, Larry, F., Lobao, Linda M., & Meyer, Katherine, (1995). *Beyond the amber waves of grain*. Westview Press: Boulder, CO.

Lawrence, Barbara K, Bingler, Steven, Diamond, Barabara M., Hill, Bobbie, Hoffman, Jerry L. Howley, Craig B., Mitchell, Stacy; Rudolph, David, & Washor, Elliot. (2002, September). *Dollars & sense: The cost effectiveness of small schools*. [Electronic version]. Retrieved Jan. 2005 from The Rural School and Community Trust Web site: <http://www.ruraledu.org/docs/dollars.htm>

Lewis, Jim (2004). *The long and winding road: Consolidation—the separation of school and community*. Retrieved Feb. 9, 2005 from the Challenge West Virginia Web site: <http://www.challengewv.org>

Lu, Y. & Tweeten, L. (1973). "The impact of busing on student achievement." *Growth and Change*, 4(4), pp. 44-46.

Luloff, A., & Swanson, L. (Eds.) (1990). *Education and community*. Boulder: Westview Press.

Lyson, T.A. (2002). *What Does a School Mean to a Community? "Assessing the Social and Economic Benefits of Schools to Rural Villages in New York."* Department of Rural Sociology, Cornell University, Ithaca, New York.

Manzo, Kathleen Kennedy (1999). *North Dakota schools struggle with enrollment declines*. Education week. Vol. XIX, Number 10. Nov. 3, 1999.

Migyanko, Madelyn Ramona (1992). *A case study of the impact of organizational changes on the educational climate of a school district*. Unpublished doctoral dissertation, University of Cincinnati, Ohio.

Nachtigal, Paul, (Ed.) (1982). *In search of a better way*. Boulder, CO: Westview Press.

Nelson, (1985). School consolidation. Washington D.C. (ERIC Document Reproduction Service No. ED 282 346)

Orr, David W. (1992). Ecological literacy: Education and the transition to a postmodern world. New York: State University of New York Press.

Peshkin, Alan. (1982). *The imperfect union: School consolidation and community conflict*. Chicago: The University of Chicago Press.

Peshkin, Alan (1978). Growing up american. Chicago: The University of Chicago Press.

Phelps, M.S. and Prock, G.A. (1991). *Equality of educational opportunity*. In DeYoung, A.J. (Ed), Rural education: Issues and practice. New York: Garland Publishing, Inc.

Picard, Cecil J. (2003). *Small school districts and economies of scale*. Presented to the State Board of Elementary and Secondary Education at the May 2003 Strategic Planning Study Group Committee. Louisiana Department of Education.

Pittman, R.B., & Haughwout, P. (1987). *Influence of high school size on dropout rate*. Educational and policy analysis. Winter 1987, 337-343.

Post, David, & Stambach, Amy (Fall, 1999). *District consolidation and rural school closure: E pluribus unum?* Journal of Research in Rural Education, Vol. 15 No. 2, 106-117.

Proshansky, H.M., Fabian, A.K., & Kaminoff, R. (1983). *Place identity: Physical world*

- socialization of the self.* Journal of Environmental Psychology, 3, 57-83.
- Purdy, D.H. (1997). *An economical, thorough, and efficient school system. The West Virginia school building authority. Economy of scale numbers.* Journal of Research in Rural Education, 13, 3. 170-182.
- Ravitch, Diane, (1983). *The troubled crusade*, New York: Basic Books.
- Raywid, Mary Ann. ((January 1999). *Current literature on small schools.* ERIC Digest EDO-RC-98-8. Retrieved from AEL Web site: <http://ael.org>
- Reeves, Cynthia (January, 2004). *A decade of consolidation: Where are the Savings?* A Challenge West Virginia document. Retrieved from Challenge West Virginia Web site: <http://www.challengewv.org/resources.html>
- Relph, E. (1976). *Place and placelessness.* London: Pion
- Riley, Robert B. (1992) *Attachment to the ordinary landscape.* In Altman, I., & Low, S.M., (Eds.) Place Attachment. New York: Plenum Press.
- Rivlin, L. G. (1987). *The neighborhood, personal identity, and group affiliations.* In I. Altman & A Wandersman (Eds.) Neighborhood and Community Environments (pp. 1-34).
- Rural School and Community Trust (2004). *The fiscal impacts of school consolidation: Research based conclusions.* Retrieved December 24, 2004 from The Rural School and Community Trust Web site: www.ruraledu.org
- School boundaries: Top agenda. (1999, October 6). Salina Journal, pp A2.
- Sell, Randall S., Leitstritz, F. Larry, Thompson, JoAnn M. (Year) *Socio-economic impact of school consolidation on host and vacated communities.* (Agricultural Economics Report No. 347). Fargo, North Dakota, Agricultural Experiment Station.
- Sher, Jonathan (1988). *Class dismissed: Examining Nebraska's rural education debate.* Nebraska Rural Community Schools Association.
- Sher, Jonathan (1992). *Education in Rural america: A reassessment of conventional wisdom.* Boulder, CO: Westview Press.
- Sher, J.P. and Tompkins, R. B. (1977). "Economy, Efficiency and Equity: The Myths of Rural School and District Consolidation." In J.P. Sher (ed.) *Education in Rural America* (pp 43-77). Boulder, CO: Westview Press.
- Smith, D.T., & DeYoung, A.J. (1988) *Big school small school: Conceptual, empirical, & political perspectives in the re-emerging debate.* Journal of rural and small Schools, Winter 1988, 2-11.

Spring, Joel (1987). *Education and the song war*. In J.W. Noll (Ed.) Taking sides: clashing views on controversial educational issues. (4th ed. pp. 123-128). Guilford, CN: The Dushkin Publishing Group.

Stockard J., & Mayberry, M. (1992). *Resources and school and classroom size*. In Educational Environments. (pp. 40-58) Newbury Park, CA: Corwin Press Inc.

Sybouts, Ward, & Bartling, Dan (1988). *Rural school board presidents look at school reorganization*. Unpublished manuscript. University of Nebraska, Bureau of Educational Research and Field Services, Lincoln.

Swysgood, Chuck (1994). Report presented at Annual Rural Education Conference, Western Montana College.

Tatge, S. (1992). *Using geographical isolation factors in state education funding*. Doctoral dissertation, Kansas State University, Manhattan.

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

Tuan, Y.F. (1974). *Topophilia: A study of environmental perception, attitudes, and values*. Englewood Cliffs, NJ: Prentice Hall.

Tyack, David (1999). *Democracy in education - who needs it?* Education Week. November 17, 1999.

Tyack, David (1974). *The one best system*. Cambridge, MA: Howard University Press.

Valencia Richard R. (1984). "School Closures and Policy Issues." Policy Paper No. 84-C3, ERIC No. ED323040.

Walberg, H.J. (1992). *On local control: Is bigger better*. In Source book on school district size, cost and quality. Hubert H. Humphrey Institute of Public Affairs, Oak Brook, IL. North Central Regional Laboratory. (ED 362 164 pp. 118-134)

Ward, J. G., & Rink, F.J. (1992). *Analysis of local stakeholder opposition to school district consolidation: An application of interpretive theory to public policy making*. Journal of Research in Rural Education, 8, (2), 11-19.

White, Wayne A. (1981). *Rural school consolidation: Rationalization and social scarcity*, Unpublished doctoral dissertation, Kansas State University, Manhattan.

Williams, D.T. (1990). *The dimensions of education: Recent research on school size*. Working Paper Series. ED 347006. Clemson University Strom Thurmond Institute of

Government and Public Affairs, South Carolina