Access to Educational Opportunity in Rural Communities: Alternative Patterns of Delivering Vocational Education in Sparsely Populated Areas

Volume 1: Problem, Study Design and Procedures, Findings, Conclusions, and Recommendations.

EXECUTIVE BRIEF

Ruth G. Thomas
Roland L. Peterson

Miscellaneous Publication 32
Agricultural Experiment Station
University of Minnesota 1985

ACCESS TO EDUCATIONAL OPPORTUNITY IN RURAL COMMUNITIES: ALTERNATIVE PATTERNS OF DELIVERING VOCATIONAL EDUCATION IN SPARSELY POPULATED AREAS

RECOMMENDATIONS

1. The mobile unit warrants further study and development. Experiments should be undertaken with this model in noncenter organizational structures, and in situations involving both short and long distances between schools and varying numbers of school districts.

2. Variations of the noncenter approach to educational delivery should be explored. Special attention should be focused on developing ways to assure quality in educational programs provided in this manner and to solve problems of ambiguous leadership.

3. Ways should be sought to reduce costs of centers. Reconfiguration of center administrative structure so that one administrator works with a greater number of school districts is one cost reduction approach that should be considered. The satellite center as an example of this strategy should be explored further as should county, multi-county and regional approaches to administration of centers or center-like structures. Special attention should be given to formulas for financing centers that are based on usage and exchange principles rather than on tax principles.

4. Additional variations of inter-institutional cooperation should be studied. Cooperation between secondary and post-secondary institutions in delivering vocational education in rural areas should be given special attention.

5. Ways should be explored to better coordinate needs assessment, program planning and educational delivery efforts of rural schools with nonschool institutions.

6. New forms of educational delivery should be created by combining the approaches and variables identified in this study in ways that achieve desired local and state educational goals. These new forms should be developed and tested on a small scale experimental basis prior to wide scale adoption and should provide an expanded repertoire of alternatives for educational delivery that will meet diverse needs and characteristics of specific rural settings. Policies should allow school districts to adopt varied forms of cooperation.

7. The potential of new technology for producing new forms of educational delivery and for linking educational resources in post-secondary vocational schools with surrounding school districts should be considered and studied.

8. Further research should be conducted on the configuration of educational facilities as it relates to access of rural students to educational programs and to information about programs, setting variables as they relate to feasible forms and partners for cooperation, and the factors identified in Table I as impeding or facilitating inter-institutional cooperation in the delivery of education.

9. Special attention should be focused on helping administrators develop administrative and leadership skills that address the need of cooperating rural school districts for a sense of ownership in the cooperative enterprise and retention of a high degree of autonomy and flexibility, and that enable administrators to develop and maintain quality in educational programs. Clarification of the role of the cooperative enterprise administrator in relation to that of school district superintendents and principals is needed.

10. The forms of inter-school district cooperation included in this study should be investigated for generalizability to nonvocational subjects, particularly as a means of providing a range of advanced elective and low incidence curricular areas to rural students.

11. State-level policies and procedures regarding reimbursement and approval of vocational programs and practices concerning foundation aids should be analyzed for incentives and disincentives for school districts to cooperate with each other and for influence on the perceptions of individual school districts regarding costs and benefits of cooperating. Schools district perspectives and the related factors identified in Table 1 should be used when considering and evaluating new state policies.

12. A planning model for local and state level policy makers to use when making decisions about and planning inter-school cooperation in given situations should be developed. The model should be based on findings in this study and on other relevant knowledge.

13. The long run impact on a school district, its curriculum, on students, and on a community of alternative means of providing access to vocational programs in rural areas should be investigated and considered in choosing educational delivery approaches.

Table 1. SCHOOL DISTRICT PERSPECTIVES AND CONTRIBUTING FACTORS ASSOCIATED WITH COOPERATIVE ARRANGEMENTS

Perspective: INDIVIDUAL SCHOOL DISTRICT AUTONOMY AND FLEXIBILITY

Contributing factors:
- smaller financial investments
- high level of reversibility
- few class hours cooperatively scheduled per day
- minimal daily schedule and yearly calendar synchronization

Perspective: SENSE OF OWNERSHIP AND CONTROL BY THE SCHOOL DISTRICT

Contributing factors:
- power and control distributed by school district and school official initiative and prerogative
- locus of power and control within school districts
- school district superintendents and principals are policy makers as well as policy implementers
- physical presence within the school district
- student flow into the school district or no student flow
- sharing a school district program

Perspective: PERCEPTION THAT SCHOOL DISTRICT BENEFITS EXCEED COSTS

Contributing factors:
- financing based on an exchange rather than a tax principle
- minimal added costs, total costs, and opportunity costs
- minimal risk
- little student time engaged in transportation and few funds spent on transportation
- substantial proportions of school district students served
- a sufficient number of members to provide efficiency of scale and relatively small financial burdens for each district but not so many members that insufficient service is provided to each district
- services do not duplicate those provided by a single school district for itself
- services provided are viewed by school district as important, valuable and desirable for its students
- cost distribution methods are based on equality rather than equity
- consistency between the bases for school district representation and cost assessments

Perspective: SCHOOL DISTRICT INCENTIVES FOR COOPERATING

Contributing factors:
- income for school district
- increased enrollment in school district programs
- increased access of school district students to educational programs

OVERVIEW OF RECOMMENDATIONS ON ACCESS TO EDUCATIONAL OPPORTUNITY IN RURAL COMMUNITIES: ALTERNATIVE PATTERNS OF DELIVERING VOCATIONAL EDUCATION IN SPARSELY POPULATED AREAS [1]

BACKGROUND AND RATIONALE:

During the 1970's federal and state imperatives directed at rural school districts to increase the access of secondary students to vocational education resulted in a wide range of efforts at state and local levels to provide comprehensive curricula for rural students. During this same period, the size of secondary school populations and amounts of economic resources for education peaked and began to decline with decline becoming more pronounced in the 1980's. Schools that were large enough shifted their curricula to place more emphasis on vocational offerings. The largest schools had the potential to simply add vocational offerings without decreasing other programs. Rural schools in sparsely populated areas had special challenges, however, since they did not have a sufficient number of students or a large enough financial base to expand vocational offerings. A solution that emerged from these schools was cooperation with other school districts through pooling students and sharing costs. As a result of this effort, several variations of inter-school cooperation emerged. In Minnesota, educational delivery efforts that involved cooperation between school districts increased in number during the early and mid- 1970's but began to decline in the last years of the decade, a trend which has increased markedly in the early 1980's.

This study responds to the need for a knowledge base regarding the delivery of vocational education to sparsely populated rural areas. More specifically, an identification and understanding of the forms of inter-school district cooperation, how they work, and their consequences, was pursued. The purpose of the study was to provide information to enable local and state educational planners and policy makers to compare and evaluate alternative forms of inter-school district cooperation as a means of providing rural students with access to quality vocational education. Products of the study are in-depth descriptions of specific examples of five selected forms of inter-school district cooperation and a comparative analysis of these forms.

[1] The complete report is contained in Experiment Station publication #AD-SB-2433 available from Communication Resources Distribution, Rm. 3 Coffey Hall, University of Minnesota, 1420 Eckles Avenue, St. Paul, MN 55108, (612)373-1615. Further information about the study is available from the authors at the University of Minnesota, 325 Vocational Education Building, 1954 Buford Avenue, St. Paul, MN 55108, (612)373-1530.

The objectives of the study were to:

- Identify defining features of alternative forms of inter-school district cooperation.
- Discover critical factors in the operation of each form of inter-school district cooperation.
- Identify relationships between forms of inter-school district cooperation and geographical, community, and school district settings.
- Assess the consequences of alternative forms of inter-school district cooperation regarding educational access and educational quality.

In-depth case studies were conducted in five sites, three in Minnesota, one in South Dakota, and one in Illinois. Each site exemplified a different pattern of inter-school district cooperation: centralized center, decentralized center, mobile unit center, centralized noncenter and decentralized noncenter. Sites were identified through a national survey and consultation with state level education personnel. A total of twenty-four school districts were involved in the five sites.

Detailed descriptive profiles were developed for each site and school district on the basis of census data, economic security data, health department data, and education department data. Data were collected on-site through structured interviews from school administrators and board members, vocational directors, teachers, counselors, program advisory committee members, and from school records and documents.

DEFINITIONS:

Organizational structure is defined as design and relationship of the parts of the organization. Two organizational patterns were studied: center and noncenter. Centers were formal organizations with their own curricula, staff and budgets. Noncenters were more informal agreements between school districts involving existing school district staff, curricula and budgets. Facility configuration refers to the centralization or decentralization of educational facility locations. Centralized arrangements provided shared programs at one geographic location. Decentralized arrangements provided shared programs at two or more geographic locations. Mobile facilites involved one or more transportable facilities that rotated between two or more communities.

Educational access is defined as the degree to which vocational programs are available to rural students. Educational quality refers to the strength or excellence of the vocational program according to commonly accepted indicators.

FINDINGS:

1. Regarding organizational structure and facility configuration:

Organizational structure and facility configuration are basic, underlying concepts useful in identifying, differentiating, and comparing forms of inter-school district cooperation.

2. Regarding critical factors in the operation of cooperation:

Four major groups of variables represent critical factors in the propensity of school districts to cooperate. These variables, enumerated in Table 1, concern the perspectives of individual school districts. A school district's sense of ownership in the cooperative mechanism is enhanced if it plays a decision-making role in the cooperative arrangement and if it contains at least part of the physical facilities. A school district's sense of the costs of cooperation is increased by a strong sense of being taxed, high added costs, perceiving itself to be placed at greater risk, by being one of a very small number of participating districts, and by perceiving that it is disadvantaged in some way relative to other participating districts. A school district's sense of the benefits received from cooperating with other districts is enhanced when a relatively large proportion of its students receive services, when it has few or no alternative ways of providing the services, and when it views the services it receives as important and desirable. School district incentives for cooperating include increased efficiency in its own operation and increased access of its students to educational services.

3. Regarding setting:

Facility configuration is associated with geographical aspects of setting. Centralized facilities were located in the area of highest population density and shortest distances between schools; decentralized facilities were located in an area with less dense population and longer distances between school districts; mobile facilities were located in the area of lowest population density and longest distances. Other setting variables, i.e., community and school district philosophy, competitiveness, size, financial status, and school administrator turnover and communication patterns are pertinent to which districts are more likely to cooperate with each other successfully.

4. Regarding educational access and quality:

All cooperative arrangements resulted in a net increase in the access of rural students to vocational programs. Access of students to programs was influenced by facility configuration, enrollment eligibility policies and, in the case of the mobile facility, by the number of programs offered cooperatively.

Positive dimensions of quality were not consistently related to organizational structure or facility configuration. Centers were characterized by high quality facilities, clearly identified leadership for program evaluation and development, and difficulty in developing student organizations. Noncenters had somewhat lower quality facilities, ambiguous leadership for program evaluation and development, but functioning student organizations. Mobile facilities reflected limited continuity in programs within each school district but great capacity to adapt programs to unique needs of each district.

CONCLUSIONS:

1. Local and state policy makers can influence the propensity of school districts to cooperate by decisions they make regarding the state structure for inter-school district cooperation, the choice of cooperative pattern, and the specific details in the design of the cooperative arrangement and its operation. Decisions about organizational structure, facility configuration and the operation of a cooperative arrangement are likely to affect the attitudes of school districts about cooperation and the long-term survival of the cooperative arrangement. Variables concerning governance, funding, and facility configuration (which determines student movement requirements) appear to be the most critical.

2. All cooperation involves transportation of at least one program element, i.e., students, teachers, materials, equipment and facilities. To the extent that technological advances and resources permit the transportation of information in the future, the need to transport other elements is likely to be reduced.

3. Cooperative arrangements that permit school districts to retain a high degree of autonomy and flexibility, that result in perceived benefits that outweigh perceived costs to school districts, that facilitate a strong sense of school district ownership in the arrangement and that provide incentives to school districts for participation are more likely to survive than those which do not.

4. The factors and characteristics important in the survival of cooperation may not be the same factors that promote educational quality and access.

5. A given school district will cooperate more successfully with some school districts than with others. School districts with similar characteristics and situations are more likely to view conditions in a similar way, have similar values and priorities, see similar incentives and to have a common base from which to develop cooperative arrangements.

6. The mobile facilities configuration provides the highest degree of access to all students in all school districts and distributes access to all shared programs equally. Centralized and decentralized configurations distribute access differentially to participating school district students, providing a higher degree of access to some or all programs to some districts than to others.

7. Each form of inter-school district cooperation possesses both strengths and weaknesses with regard to educational quality. Thus, decisions about form involve choices among quality trade-offs.

RECOMMENDATIONS:

1. The mobile unit warrants further study and development. Experiments should be undertaken with this model in noncenter organizational structures, and in situations involving both short and long distances between schools and varying numbers of school districts.

Rationale : While this facility configuration is well suited to areas with long distances between communities, it need not be limited to these situations. The educational quality and access achievable in this pattern and its ability to address the school district perspectives identified in Table I make it an especially viable model for inter-school district cooperation.

2. Variations of the noncenter approach to educational delivery should be explored. Special attention should be focused on developing ways to assure quality in educational programs provided in this manner and to solve problems of ambiguous leadership.

Rationale: The noncenter has potential because of the incentives it entails for school districts to engage in cooperation and because of its relatively low cost. Quality of facilities and clarity of leadership are two potentially solvable problems associated with this pattern.

3. Ways should be sought to reduce costs of centers. Reconfiguration of center administrative structure so that one administrator works with a greater number of school districts is one cost reduction approach that should be considered. The satellite center as an example of this strategy should be explored further as should county, multi-county and regional approaches to administration of centers or center-like structures. Special attention should be given to formulas for financing that are based on usage and exchange principles rather than on tax principles.

Rationale: The center concept deserves attention because of the educational quality it is capable of providing. Because it is a more expensive form of cooperation than the noncenter, finding ways to reduce costs removes a major barrier to centers. Because administration is a major factor in the higher cost levels of centers, sharing this cost on a broader scale is one potential way of reducing costs.

4. Additional variations of inter-institutional cooperation should be studied. Cooperation between secondary and post-secondary institutions in delivering vocational education in rural areas should be given special attention.

Rationale: An array of potential forms of cooperation were identified as a base for this study. Only a segment of the possibilities were studied in depth. Because post-secondary vocational schools are presently well distributed in Minnesota, and because of potential cost savings in facilities and staff, the secondary/post-secondary pattern of cooperation is worthy of serious consideration.

5. Ways should be explored to better coordinate needs assessment, program planning and educational delivery efforts of rural schools with nonschool institutions.

Rationale: Concepts of inter-institutional cooperation need not be limited to cooperation between school districts. Community-based youth groups, the Agricultural Extension Service and other rural institutions with educational missions provide nonformal education that can amplify and complement the school's educational services. By intentionally coordinating efforts between these institutions, greater impact on the educational needs of rural communities is possible.

6. New forms of educational delivery should be created by combining the approaches and variables identified in this study in ways that achieve desired local and state educational goals. These new forms should be developed and tested on a small scale experimental basis prior to wide scale adoption and should provide an expanded repertoire of alternatives for educational delivery that will meet diverse needs and characteristics of specific rural settings. Policies should allow school districts to adopt varied forms of cooperation.

Rationale: An expanded repertoire of approaches to cooperation is desirable because of the limitations inherent in present models and the need for models to suit diverse geographical settings and community situations. As an example, the mobile unit might be combined with a secondary/post-secondary approach to yield a pattern in which mobile units are dispersed from a post-secondary vocational institution to serve surrounding school districts on a rotation basis.

7. The potential of new technology for producing new forms of educational delivery and for linking educational resources in post-secondary vocational schools with surrounding school districts should be considered and studied.

Rationale: The potential for technology to reduce problems of educational access by moving information versus people makes it particularly appropriate for experimental application in rural settings.

8. Further research should be conducted on the configuration of educational facilities as it relates to access of rural students to educational programs and to information about programs, setting variables as they relate to feasible forms and partners for cooperation, and the factors identified in Table I as impeding or facilitating inter-institutional cooperation in the delivery of education.

Rationale: Limited information is available about education in rural settings. Consequently, policy decisions at both local and state levels must often be made without an adequate base of knowledge and information. There is need for an increased knowledge base regarding rural education. Access is the primary problem regarding educational opportunity in rural areas. Consequently, factors related to access are of particular concern.

9. Special attention should be focused on helping administrators develop administrative and leadership skills that address the need of cooperating rural school districts for a sense of ownership in the cooperative enterprise and retention of a high degree of autonomy and flexibility, and that enable administrators to develop and maintain quality in educational programs. Clarification of the role of the cooperative enterprise administrator in relation to that of school district superintendents and principals is needed.

Rationale: Inter-school district cooperation places special demands on the administrator of the cooperative arrangement. Lack of special administrative skills demanded in cooperative arrangements can have a profound effect upon the attitudes of school district officials toward cooperation and, ultimately, upon the existence of the cooperative arrangement. Lack of clarity in the roles of the school district administrators and the vocational director produces uncertainty with respect to lines and areas of authority, and inappropriate or insufficient communication among administrators.

cooperative arrangement was operated, its organizational structure, and the location(s) of its facilities were related to the ways in which school districts viewed cooperation with other districts. Four themes reflecting school district perspectives on cooperation were identified - autonomy and flexibility, sense of ownership and control, perceived relationship between costs and benefits of cooperation, and school district incentives; 6) The mobile unit center appeared to most consistently address quality and access goals, the four school district perspectives, and to be adaptable to a range of geographic settings.

Recommendations include: 1) further study and experimentation with variations of the mobile unit form and other forms of cooperation; 2) development of experimental models of cooperation between secondary and post-secondary institutions in rural areas; 3) investigation of the forms of cooperation studied for their applicability to a range of elective subjects; 4) analysis of state level policies and procedures regarding reimbursements to schools to identify incentives and disincentives for inter-school district cooperation; 5) experimentation with new technology that allows remote delivery of education and that expands cooperation possibilities (e.g., closed circuit television networks or computer networks operated by cooperating school districts); 6) development of a planning model for local and state policy makers to use in making decisions about and planning inter-school district cooperation; 7) development of educational delivery mechanisms that involve cooperation between schools and nonschool educational organizations; 8) creation of new forms of educational delivery by combining forms of inter-school district cooperation included in this study or by combining desired characteristics of existing forms; 9) study of the long run impact of cooperation on rural school district curriculum and students and on rural communities.