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ABSTRACT

This paper examines and questions popular ideas about education and its relationship to the economic well-being of individuals, communities, regions, and the nation. It suggests that the criteria used to develop economic and educational strategies have produced mixed results at best, especially in rural areas. Since family income is related to student performance and the rural poverty rate is 50% higher than in urban areas, rural economic development should be as much or more a part of school improvement than strategies (e.g., consolidation) that are confined to the school level. Despite some limited successes of rural industrialization strategies, rural poverty, and Appalachian poverty in particular, has not improved. Educational reform should take into consideration the profound economic and social changes brought on by industrialization and new technologies. Traditional policy constraints on rural schools should be removed to encourage innovations that better link them with their surrounding communities. Other factors to be taken into consideration for rural education reforms include school size, experiential learning, accountability, improving rural schools as community resources, and organizational and curriculum change. Seventeen policy recommendations are listed. They include: making relevant data more available to policymakers; creating financial incentives for collaborative programs and networks; reviewing regulations to encourage greater educational entrepreneurship; and creating finance formulas that are more sensitive to rural schools. This paper calls for policy innovation, suggesting conventional development will bring continued erosion of rural education and hasten the exodus of its best students. (TES)

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Education Reform and Rural Economic Health:

Policy Implications

BY
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May 1989

This paper is based on a presentation by the author at a syposium, "Risky Futures: Should State Policy Reflect Rural Diversity?," sponsored by AEL's Policy and Planning Center on December 4-5, 1988, in Louisville, Kentucky. The author is professor of rural sociology and director of the Office of Social and Economic Data Analysis, University of Missouri.

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This conference makes clear to me that educational reform is not being slowed by a lack of knowledge of what works in the classroom or of the kinds of schools that are producing education as well as good test scores. The conference program has attracted some of the most reputable public education authorities, innovators, and researchers in the country to report their research and experiences. From what I have heard them report, there is clearly a gap today between our knowledge about public education and the assumptions behind those policies intended to reform it. We appear to know more about what contributes to educational outcomes than is being taken into account by policies intended to produce educational reform. A recent book (Kerr 1984) devoted itself to this knowledge-policy hiatus, wondering, in effect, if we know so much why we aren't doing better? Kerr's analysis focused on those familiar structures - bureaucracy, professionalization and "research systems" - as some of the barriers to more effective convergence of knowledge and policy.

An item high on the agenda of concerns about public education is how well students are being prepared to be productive members of a new and different kind of labor force. The central role accorded education in enabling the society and economy to remain "competitive" was clearly implicit in the title, "A Nation At Risk". We are reminded by numerous writers how much the economy has changed over the past three decades (e.g. Reich 1985, Thurow 1985; Marshall 1986; Tucker 1986; Rosenfeld 1986). Marshall (1986) for example characterizes the contemporary economy as an international information economy, Dillman and Beck (1988) emphasize a transition from a mass society era to an information era. If education and economy are to continue their symbiotic relationship, and indeed indications are that the public, educators, politicians and business leaders are largely in agreement that preparation of students for productive participation in the contemporary and future economy should be a principal role of education, then the methods and content of education need to change to be more in accord with changes in the economy.

Education and the Economy

Economists have conceptualized educational attainment of individuals, regions and nations as human capital and have determined that as much as 1/3 of U.S. economic growth this century can be attributed to the effect of a better educated (more skilled) labor force on productivity (c.f. Deaton and McNamara 1984). Correspondingly the public, educators, and policy makers have largely come to take for granted that there is a direct linear relationship between education and economic development, e.g. that education "causes" economic growth for regions and nations. Closely associated is the conviction that more education contributes directly to more lifetime income and well-being for those who receive it. This relationship is frequently cited as a source of support for educational appropriations. Of course it also implies that as the economy changes, so too do human capital requirements (Marshall 1986).

But our perceived connections between education and economic well-being for individuals as well as for communities, regions and the nation have been rather vague, general and uncritical (DeYoung 1985). Economists, in assessing the effect of human capital on economic growth, have usually simply taken the number of years of schooling completed as a proxy measure for human capital, with little or no attention to the kind and quality of that education, or to means other than schooling by which human capital can be acquired and accumulated (Deaton and McNamara 1984). The interpretation that education "causes" economic development has been widely adopted as an economic development strategy with mixed results at best. The Appalachian region provides a notable case of mixed results (DeYoung 1985).

A part of the reason for a lack of clear and direct relationship between investments in education (both individual and public) and economic development is that the relationship is a two-way street. Cause and effect runs both directions. At a community or regional level a lack of economic development is generally associated with lower school and test performance of the students who live there (Walberg and Fowler 1987). The effect of low income on student

performance is not often taken into account in either economic or educational policy even though research shows a clear and strong relationship.

Rural Education - Rural Development

The point of the above has particularly significant implications for rural schools and regions. Rural schools are often described as being educationally deficient - the amelioration strategy of the past has most often been school consolidation, e.g. making rural schools more like urban schools (Smith and DeYoung 1988). But if rural students perform less well than urban students an effort should be made to determine whether it is deficiencies of the school or of the student's economic environment which is contributing most to that deficit. If there is a strong connection between family income and student performance in school (and there is) and the rural poverty rate is 50 percent greater than the metro poverty rate, then differences in school performance between rural and urban children are more likely to be accounted for by the rural-urban income differentials than by differences in the quality of schools, teachers, curricula, etc. This is not to argue that rural schools do not have deficiencies, that they don't have pressing financial and staffing needs, nor that rural school reform isn't needed. It simply emphasizes that rural development, e.g. increasing rural income and reducing the number of rural poor families, should be as much or more a part of a strategy for rural school improvement than strategies whose application is confined to the school. As noted above, the rural economy and rural education are inextricably linked. cause and effect is a two-way street.

There is another feature of the rural economic development-education nexus which public policy should be taking into account. The most highly educated rural youth are most often those who migrate from rural to urban areas, typically in exchange for more remunerative employment. Both the migrants and the nation have generally benefitted from this migration - resources (human capital) are transferred from areas (sectors) of low return to areas of higher return. However the outmigration of the most highly trained talent causes rural communities (schools) to lose a return on their investment in the education of their youth. Consequently rural communities and regions

experience difficulty in "capturing" the benefits of their educational investments. In effect, rural localities subsidize economic growth at the point of destination of the migrants. Tweeten (1980) and Deaton and McNamara (1984) are among those rural economists who contend that, on equity grounds, this out-migration of rural human capital (spill-over effects) justifies greater public subsidy of rural education.

The two-way interaction between education and economic development leads Mulkey (1988) to emphasize that questions of educational attainment, educational policy, and economic development cannot be considered separately from each other, or separately from other factors which affect the educational environment. Improved educational performance can be expected from improved economic well-being in the environment where the education occurs. Although Mulkey states that policy should not treat these questions separately, the fact is that they usually are, although political support for educational appropriations is often broadly couched in terms of education being an investment in future economic growth. But the connection seldom goes much deeper than that.

Education and the Economy in the Appalachian Region

Clearly this conference focuses on a region where economic development has been and continues to be a high priority. The region lags behind most other rural regions in income, employment and educational attainment. The U.S.D.A. has recently classified all non-metropolitan counties in the US according to the principal source of each county's economic base (Bender et.al. 1985). Of the seven categories of counties they identify, (farming, manufacturing, mining, etc.) one is labeled as "persistent poverty". Ten percent (242 out of 2,443) of all US rural counties are identified in this category based on their ranking in the lowest 20 percent of per capita income every decade since the 1940's. Seventy two of those 242 counties are found in the four state Appalachian region. Most of the remaining "persistently poor" counties are found in other southeastern states.

Despite intensive Appalachian economic development efforts, unfortunately not much progress has been made in reducing the region's proportion of poor population (DeYoung 1985). Indeed the proportion of population below the poverty line has been increasing dramatically in the US in recent years, especially among the two populations of concern to this conference. the number of children and the number of rural residents below the poverty line has grown more rapidly than other age, resident groups. The metro poverty rate climbed from 10.4 percent in 1978 to 12.3 percent in 1986, but the non-metro rate jumped from 13.5 percent to 18.1 percent (Greenstein 1988). As a result the 1986 non-metro poverty rate was higher than the central city poverty rate for the first time since 1975. That was true for all races. For example the black poverty rate in the central cities was 31.2 percent in 1986 but 42.3 percent in non-metro areas (Greenstein 1988). In addition the rural poor generally do not conform to conventional stereotypes about low income people. Rural poor are more likely than urban poor to live in two-parent than in single-parent families. They are more likely to be white. They are more likely to be in the work force. More than two-thirds of the non-metro poor families have at least one worker, and a fourth have at least two workers (Greenstein 1988).

Past Economic Development Strategies

Past Appalachian economic development efforts, especially during the 1960s and 1970s, leaned strongly in the direction of relocating industry from outside the region. The strategy was reinforced by a combination of federal, state and local investments in industrial infrastructure, especially highways, area vocational schools, industrial parks and sewer and water services. States and localities supplemented these investments with various tax abatements and other concessions. The strategy worked to a substantial degree. It greatly changed the character of the region's rural economy. The same USDA study cited above (Bender et. al. 1985), classified manufacturing employment (30% or more of labor force employed in manufacturing in 1979) as the principal component of the economic base for 110 (37%) of the 294 non-metropolitan rural counties in the four state region. Tennessee and southern Virginia have particularly large concentrations of

"manufacturing" counties When combined, manufacturing and persistent poverty counties account for 62 percent of all the non-metro counties in the region. Most of those counties would have been classified as agricultural during the 1950's. The growth of rural manufacturing enabled many farmers to take off-farm employment thus becoming "part-time" farmers. The region's agriculture was thereby simultaneously transformed.

While the rural industrialization policies were effective in inducing many firms to relocate into the region, research shows that Appalachia as well as other rural regions experienced costs as well as benefits as a result (e.g. Summers, 1982). Summers reports that in 2/3 of the cases of rural plant locations, the rate of unemployment did decline. But decreases were small, relative to the magnitude of unemployment. He emphasizes that new jobs frequently went to in-migrants, commuters, and new entrants. Farmers for example reduced their under-employment by taking off-farm jobs - that improves the economy but doesn't reduce unemployment since neither underemployed farmers, nor any other underemployed workers, are counted as being unemployed. Summers also finds that jobs leak out of the community rather than going to unemployed residents. He contends that inadequate planning has often resulted in new jobs being created which are poorly matched to the local supply of labor. In addition many communities made investments to attract firms but were unsuccessful in their efforts and thereby failed to achieve a return on their investment.

Regardless of the costs and benefits, the future of the rural industrialization strategy seems clouded at best. A recent rural development research report conducted in the southern region was entitled "After the Factories" (Rosenfeld, et. al. 1985), indicating that some factories that had previously relocated into the region were again relocating, often to off-shore locations. Because of recent economic internationalization U.S. rural regions now compete with the labor force of other countries for plant relocations. The report emphasizes therefore a need for new economic development strategies for the South, citing a need for strategies based more on human capital than recruiting low wage industries.

Social/Economic Change and Alternative Strategies for Rural Education-Rural Development

We can think of society as a set of rules that most citizens learn and generally conform to. They are learned both formally (in school for example) and informally. Conforming to those "rules" gives society both stability and predictability. The rules, once in place, generally come to be taken for granted; their validity is infrequently challenged. Not only do the "rules" become incorporated into everyday behavior and decision making but they become a part of policy making and policies tend to reinforce them. In effect the rules become our conventional wisdom.

Social change occurs when those rules change. Such periods of social change are typically accompanied by uncertainty and stress but also by innovation, as new solutions are sought for both new and old problems. Numerous writers are calling attention to how both economic and social rules are in transition today. On the one hand there are attempts to make new problems conform to old solutions, while simultaneously many individuals and organizations are experimenting with new approaches and forms of organization.

In this context we can think of both past rural education investments and reforms as well as rural development efforts as having been based substantially on industrial era rules, principles, and forms of organization. Educational reform has stressed the notion of the "one best system" (standardized mass production) and has relied extensively on industrial principles of specialization, centralization and standardization along with the concomitant ideas of efficiency and economies of scale Similarly past rural development efforts have concentrated substantially on industrializing the countryside and incorporating rural communities and institutions into the mass society. But substantial economic change has occurred and the principles of the mass society appear to be no longer as appropriate or workable as they may have been in the 1960s (Dillman and Beck 1988). The rules are changing.

Some of the structural economic changes that should not escape notice and should be taken into account in both educational reform and rural development efforts include the following:

- A majority of new economic opportunities are occurring in the service and information sectors. Nearly all new employment over the past 40 years has emerged from the service sector (Pulver 1988; Redwood 1988).

- A majority of new jobs in the country are being generated by small businesses, not large. The largest corporations in the country are declining in U.S. based employment (Redwood 1988).

- At least in rural Missouri (and evidence indicates in other states as well) the most rapidly growing sector of employment is in the non-farm proprietor category. Entrepreneurship has become a viable economic development strategy especially for smaller rural localities (Hobbs 1987). Job creation is replacing "smoke-stack" chasing as a viable economic development strategy.

- Information technologies have freed many kinds of economic activities from locational constraints they may have experienced in the past. Quality of life considerations, more than access to raw materials and surface transportation, are becoming pertinent in decisions to locate various economic activities (Dillman and Beck 1988).

- Small organizations have been found to be much more innovative and creative than large organizations.

- Educational research has failed to demonstrate that large schools have either an economic or educational advantage over smaller schools (e.g. Walberg and Fowler 1987, Sher 1988, DeYoung 1987; Hobbs 1988). Indeed Ernest Boyer advocates that schools with an enrollment in excess of 1500 are prime candidates for deconsolidation in the name of educational improvement. Monk, at this conference has shown that there are few practical curriculum advantages associated with high schools in excess of 400 enrollment.

- Economic change is contributing to a growing underclass. At the same time demographic trends over the past two decades have resulted in a declining number of persons entering the labor force.

- Women continue to enter the labor force at all levels and will soon equal the proportion of men in the labor force.

The implications of these and other changes in economic and social "rules" for educational reform are profound. To quote Marc Tucker of the Carnegie Forum on Education and the Economy: "We do not believe the educational system needs repairing, we believe it must be structurally changed, reflecting the structural changes taking place in our economy to prepare our children for productive lives in the 21st century." (Tucker 1986:36).

The stakes for rural development are high and there are few institutions that can play a more important role than public education at all levels. But before significant innovations can be expected it is important that those involved in public education, both public and professionals, change some of our beliefs and conventional wisdom about education. There are significant

disparities today in views among public education teachers and administrators, policy makers, academicians, the public and perhaps those of us at this conference. Such disparities are evident from a 1981 survey of the needs of smaller schools (National Center for Smaller Schools 1981). Although the survey report is now somewhat dated, the survey indicated that teachers and administrators ranked "maintaining effective discipline", "maintaining effective classroom management" and "establishing, communicating and enforcing discipline policies" as 3 of the top 4 ranked needs of smaller schools. Conversely the survey revealed that such factors as "encouraging community involvement in instruction", "training in record keeping skills", "encouraging community involvement in planning", "alternative modes of delivery for in-service" were ranked among the bottom ten out of a total of 96 needs. Ironically the factors teachers and administrators ranked near the bottom are among those being stressed as important features of rural school reform today (e.g. Nachtigal and Hobbs 1988).

The emergence of a global economy, information age technology, etc. are contributing to change in the skills necessary to be rewarded in the work place. Some authors are contending that learning how to learn, elimination of the separate academic-vocational tracks, an ability to connect ideas with experience, etc. should be essential components of educational reform if a more talented and productive labor force is to emerge from the nation's schools (e.g. Tucker 1986, Marshall 1986; Rosenfeld 1986). If such goals were to become incorporated into education at all levels they would remove some of the traditional educational constraints imposed on rural schools by their incorporation into the "one best system", and open up innovative opportunities for closer connections between school and community.

Some Specific Considerations for School Reform Likely to Contribute to Rural Development[1]

The most important contribution a school can make to local economic development is to institute reforms which will provide a quality education, combining practical experience with ideas and concepts. for all students. We emphasize all students because, as suggested by Thurow (1985), it is not possible to build a quality economy on low quality inputs - illiteracy hurts the literate. With the growing importance of knowledge and innovation as keys to economic productivity all students must be prepared to participate in a knowledge based economy. An inability to productively participate in the economy not only hurts the individual but the community in which they reside as well.

Interestingly there are many exciting rural education-rural development experiments going on today which involve rural schools and their students becoming more actively involved in studying their community as a part of a strategy to improve the quality of education (Nachtigal and Hobbs 1988). These experiments emphasize that students becoming involved in studying and understanding the real world outside the school can simultaneously contribute to both improved quality of education and learning and to community development. As I wrote in a paper recently - it strains credibility to believe that rural community development can travel very far on ignorance of the locality and how it operates (Hobbs 1987). So we take the point of view that improving the quality of rural education and contributing to rural community development does not require a choice - both can occur simultaneously. But in order to do so requires some changes in methods of education and perceptions about schools.

Local education and community leaders as well as state policy makers and educational professionals should consider the following factors in contemplating the direction of rural education reforms.

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[1] From this point on in the paper we rely substantially on quotes and paraphrases from a position paper prepared for the National Governor's Association by Paul Nachtigal and myself (Rural Development: The Role of the Public Schools. 1988)

(1) School size - While further rural school consolidation might be merited on a case by case basis (Sher 1986), research evidence reveals little, if any, economic and educational benefit associated with increases in school size (Smith and DeYoung 1988, Walberg and Fowler 1987). Therefore there is little prospect that across-the-board mandated school consolidation will contribute much to improving the quality of rural education.

(2) Curriculum deficiencies - A past justification for consolidating rural schools was to produce a school large enough to make it economically feasible to offer a variety of specialized upper-level courses. That is no longer as compelling as it might have been a few years past. Many rural schools are now sharing specialized teachers, and distance learning technologies have made it economically feasible to offer quality upper-level courses to a few students in smaller more isolated rural schools. Location need not constrain access to quality education to the extent it has in the past.

(3) Specialized vocational education and "tracking" of students. Establishing area vocational schools was a part of the policy of rural school reform and rural development of the 1960's. Since rural schools were too small to offer a comprehensive vocational program, area vocational schools were established (generally with federal rural development support) to provide specialized vocational training to rural students. Rosenfeld (1986) and Tucker (1986) are among those who have questioned either the educational and economic value of providing specialized vocational training to secondary students in the context of the contemporary economy. They see premature specialization as virtually guaranteeing early obsolescence. Rosenfeld (1986) refers to the need for "renaissance technicians", those who combine a strong basic education with technical skills, while Tucker contends that:

> High school vocational education, as an activity separate and distinct from academic education, must go. In its place, we need to install a new kind of education for everyone. It must be intellectually demanding, but not academic. It must be....education that connects thought with action. (1987:37)

(4) Experiential learning - Educational reform should shift more of the burden of responsibility for learning and acquiring knowledge to an "active" student, instead of a passive student viewed as an "empty vessel" to be filled by knowledge. Goodlad and Oakes comment in this regard that:

> Even though most teachers reject the image of passive students patiently having their vessels filled up, and though they are familiar with a variety of teaching modes, study after study reveals the dominance of telling, lecturing, questioning the class and monitoring seatwork. The inquiring, questioning, probing, hypothesizing kind of intellectual endeavor often associated with learning is not usually found in the classrooms." (1988:17)

While their comments apply to all students and schools everywhere, the "active" student, involved with the environment outside the school, is a practice which fits particularly well with rural realities. In addition, the work of students in studying features of the community can become a resource to community planners and decision-makers. It can be "real" work. Elliot Wigginton, the originator of the Foxfire books and program, emphasizes that the key to success of that concept is that the students are involved in writing real stories, about real people, for real readers, and for real money (1986). Rural communities typically do not have professional planners and analysts available to them to assist their development and planning efforts. Well conceived student projects can partially replace expensive professional expertise while at the same time enhancing the student's education.

(5) Organizational and curriculum change - a part of our conventional wisdom about education has settled on an organization staffed by specialists, bureaucratically organized and structured into 55 minute classes, 6 period days and 5 day weeks. That organizational pattern derives largely from industrial principles and requires large numbers of students to operate efficiently. There is little other than tradition that supports that pattern. Neither is it written in stone that the school curriculum be carved up in the existing chunks of Algebra, Geometry, Physics, English I, etc. - courses that are so discrete that students have difficulty seeing the interrelationships among them. One recent study of California high schools reported that. "Not surprisingly, the high school students we interviewed said they don't expect to encounter connections between one subject

and another; that's just the way school is." (Eisner 1988.24). If the smaller community environment is turned to educational advantage, rural schools offer an ideal laboratory for development of integrated curricula - especially if linked with experiential learning.

(6) The rural school as a community learning resource center. For many rural communities, the school is the last remaining viable public service agency. It both defines community boundaries and serves as the focal point of a sense of community. But beyond that, the school in many communities could serve as a facility and location for a wider range of community services and activities. Instead of being under-utilized, as is often the case, the school could become the most active location in the community.

Especially pertinent in terms of rural development is the schools' potential for a broader training and educational role. the rural school could perform. Adult basic and continuing education is a high priority need throughout Appalachia. Greater investment in adult education can potentially produce immediate returns to the locality and the locality can more often "capture" the benefit of that adult education.

In addition the rural school could become a focal point for a wider range of training and manpower services. Tweeten (1986) calls attention to rural people's lack of access to manpower training and related services that could be of benefit to rural development. If more such services were offered at school facilities it would improve access and therefore utilization.

(7) Accountability - there is a need for new measures of educational performance and outcome (Deaton and McNamara 1984). As Marshall (1986) emphasizes, any organization tends to get back what it measures and rewards. If schools continue to be evaluated on the basis of counting the inputs (number of library books, counselors, etc.) and judging student performance by standardized tests it is probable that school reform will be deterred. Continued emphasis on those factors will surely produce improved test scores but that may well occur at the sacrifice of better educated students.

Policy Implications

In our paper Nachtigal and I (1988) translated several of the preceding considerations into a set of policy implications for consideration by educators and other policy makers. Below is a restatement of those recommendations.

Performance of Schools

1. While states are data rich, they are information poor about the status of rural education. Data has not been effectively organized to inform policy decisions about rural school performance, teacher quality and availability, financial needs, and resources, etc. These data need to be available in a form that can be related to local and regional social and economic trends if informed decisions are to be made at either the state or local level. Deaton and McNamara (1984) also recommend that expenditure analysis is needed to identify specific local factors that community leaders can modify to deliver quality local education at least cost.

We recommend that state agencies be directed to create an integrated data base that can inform future policy decisions about rural education and rural development. Such a data base should be available to local and state level education decision-makers.

2. A state has both a legal and moral responsibility to support equity and assist in maintaining quality of life in all its communities. Therefore we recommend that state leadership be charged with developing educationally germane quality/performance standards to be met by all public schools, standards that go beyond uniform measures of student achievement and include information on dropouts, student performance following graduation, etc. Once such standards are established rural schools could be freed from the operational constraints currently imposed by accreditation and other state regulations and capitalize on their inherent strengths to meet those standards.

3. States can take the initiative to encourage institutions of higher education to pay more specific attention to the preparation of rural teachers, administrators, and other social service

personnel interested in working in rural communities. Current programs are generic at best and often carry an urban bias that views employment in rural communities as the least desirable option.

4. School consolidation, the single most prominent policy solution to the problems of rural schools, has been useful in the past. However its future utility is likely to be limited. Little gain in either school effectiveness or economic efficiency is likely to follow.

From their study of school reorganization alternatives for small rural schools, Monk and Haller (1986) recommend that. (a) the state should make it possible for school districts to give unbiased consideration to traditional reorganization as a solution to the problems of small size, (b) it should provide additional alternatives to traditional reorganizations, and (c) it should become more tolerant of, and accept greater responsibility for, the costs of expanding educational opportunities in small rural districts. Consolidation, where implemented, should be accomplished with a great sensitivity to the implications for community, student participation and motivation, effect on learning, etc.

5. The practice of tracking students into either academic or vocational curricula should be thoroughly evaluated to determine if effects are as presumed. Many authors (e.g. Reich, 1983; Thurow, 1985; Rosenfeld, 1987) call attention to need for practitioners of the most productive and rewarding vocations, both now and in the future, to have a strong academic foundation especially in mathematics and the sciences.

Rural School Innovations

6. Incentives should be built into finance formulas to encourage school districts to establish collaborative arrangements for sharing resources, personnel, and services, these arrangements could include the use of technology and electronic networking. Such clusters could achieve many of the hoped-for advantages of consolidation while continuing to support the integrity of the community.

7. While much of the initiative for redesigning rural schools and mounting rural development activities must come from local communities, they can not go it alone. Small grants and readily

available technical assistance could stimulate creativity and encourage innovations necessary for truly effective school reform.

8. We recommend a review of education regulations, especially those that slow the process of curriculum approval and accreditation, in order to encourage greater entrepreneurship among education institutions (Vaughan, Pollard and Dyer, 1985).

9. Given the powerful influence of student socio-economic status on their educational achievement, and given the relatively low and inconsistent relationship between educational expenditures in general and student achievement (Walberg and Fowler 1987), much more attention needs to be addressed to educational practices, methods and procedures that are effective in overcoming this consistent and strong influence Rural economic development should be considered as a vital part of policies intended to improve student performance.

Financing Public Schools and Other Public Services

10. Given the link between school performance and socio-economic status, particularly prevalent in the "persistent poverty" counties, differentiated resources need to be made available not unlike those provided in court-ordered desegregation cases. School finance formulas need to be redesigned to be sensitive to distinctively rural characteristics and to assure that essential educational functions are available for all students regardless of where they live.

11. Incentive grants along with experimental school guidelines should be established to facilitate pilot rural restructuring initiatives State education agencies, with their traditional regulatory role, could play a key role in promoting and supporting such initiatives. Priority should be given to programs that address the multiple roles that schools can play in rural development.

Integrated Delivery of Services to Rural Areas

12. Recognizing the integrated and generalist nature of rural communities, an interdepartmental task force should be established at the state level to articulate and avoid redundancy of program

delivery to rural communities. More populous urban areas are capable of reproducing a bureaucracy parallel to that at the state level, rural communities are not. Education should be seen as an integral part of a larger rural development policy that includes health, welfare, and economic development.

13. Consistent with the work of an interdepartmental task force, attention needs to be given to restructuring the support services available to rural communities, including outreach programs of higher education, community colleges, economic development offices, intermediate services agencies, etc. networking these services into coherent programs responsible to local school and community needs. Educational access is needed for all ages, preschool through senior citizens. Job displacement resulting from declines in energy production and mining, the departure of manufacturing, or the agricultural crisis requires that people have access to continuing education and retraining opportunities. New distance learning technologies can facilitate making such support services, e.g., in-service training - available in a cost effective manner.

Economic Development

14. An immediate need that will likely become even more pronounced is retraining of displaced workers. Retraining needs are unusually great in rural areas, where unemployment and illiteracy rates are high, and private training opportunities are scarce (Ross and Rosenfeld 1987). States should work closely with federal agencies who control many of the vocational and retraining dollars to bring about a more effective integration of these human capital investments at a local community level. As suggested by Ross and Rosenfeld programs that build on the strengths of rural institutions, such as vocational agriculture, the extension service, and the rural school will foster better human resource development. The school might be a particularly beneficial location for such integrated services.

15. More thought needs to be directed toward creative ways of combining work and experience with basic education for both youth and adults. Deaton (1986) suggests that work

related education may be one of the most cost-effective means of enhancing (national) economic productivity. School based development enterprises are one such method but many other models are being experimented with (Rosenfeld, 1987).

16. New institutional/administrative designs are needed at all levels but especially at the community, to coordinate the interrelated functions of capital investment, applications of scientific knowledge, and development of human capital (Deaton, 1986). Closer working relationships between various educational agencies would also likely produce a benefit. For example Ross and Rosenfeld (1987) point out that the newest and potentially most important instrument in rural human resource development is the community college/technical institute. More explicit attention to convergence of curriculum between public schools and regional post-secondary institutions would likely produce a benefit.

17. The small amounts of venture capital needed for an entrepreneurial effort are often the most difficult to obtain. A relatively simple procedure for obtaining small loans needs to be established to facilitate school based and small town economic initiatives.

Conclusion

Education and economic development have emerged as high priorities for state governments across the country. Competitiveness of the nation's economy and education's role in it have captured public and political attention. The question now before us is what models and what approaches are likely to be most effective in addressing those perceived needs. There is a temptation to employ the rules and procedures that have worked for us in the past. But new technologies and changes in the international competitive environment have rendered many of those principles obsolete. Little progress is likely to be made by the more diligent application of what seems to have worked in the past. Change has created the need for innovation and nowhere is this more true than in rural America and especially in those parts of rural America that have traditionally been left behind.

There can be little doubt that good schools are a necessary component of any future rural development strategy. What is at stake however is what criteria we will be employing in the future as our measure of a "good" school. If we continue to employ the conventional criteria from the past it is likely that most rural regions will continue to witness an exodus of the cream of their student crop to what they perceive to be better opportunities elsewhere. A part of the problem with this tradition is that it has tended to "leave behind" students who have fewer productive skills. The rural community thus loses on both ends of this scenario. Rural development tends to occur by subtraction - fewer people to share a shrinking pie.

We might visualize the "good" rural school of the future as one that has a more symbiotic relationship with its community and environment. A school which views the world outside the school as an educational resource - one that allows (indeed facilitates) students an opportunity to link ideas with practice and increase both relevance and motivation by becoming involved with real work and real problems. As we suggested earlier in the paper it is not realistic to expect rural community development to travel far on ignorance of the locality and how it operates. If community becomes an object of study we can expect both better informed students and better informed communities as a result. Obviously rural school reform involves much more than that, but it is a start toward students learning how to learn, becoming active participants in their own education, and linking concept with experience. Rural schools, instead of being regarded as deficient because of their small size and rural environment, can instead turn that environment into educational advantage and become leaders in producing the educational innovations necessary to meet the social and economic conditions of the 1990's and beyond.

Bibliography:

Bender, Lloyd, et. al. The Diverse Social and Economic Structure of Nonmetropolitan America. Rural Development Research Report Number 49. Washington, D.C.. Economic Research Service. USDA. 1985.

Deaton, Brady. Relationships of Nonfarm Employment to Agricultural Development. Chapter 10 in Korsching, Peter and Gildner, Judith (eds.) Interdependences of Agriculture and Rural Communities in the Twenty-first Century. Ames, Iowa. The North Central Regional Center for Rural Development. 1986

Deaton, Brady and Kevin McNamara. Education in a Changing Environment. Mississippi State, MS: The Southern Rural Development Center. February, 1984.

DeYoung. Alan J. Economic Development and Educational Status in Appalachian Kentucky. Comparative Education Review. Vol. 29, No. 1. February, 1985.

DeYoung Alan J. The Status of American Rural Education Research. An Integrated Review and Commentary. Review of Educational Research. Vol. 57. No. 2. 1987.

Dillman, Don A. and Donald M. Beck. Information Technologies and Rural Development in the 1990s. Journal of State Government. Vol. 61:1. January/February 1988.

Eisner, Elliot. W. The Ecology of School Improvement. Educational Leadership. Vol. 45, No. 5. February 1988.

Goodlad, John and Jeannie Oakes. We Must offer Equal Access to Knowledge. Educational Leadership. Vol. 45, No. 5. February 1988.

Greenstein, Robert. Barriers to Rural Development. Paper presented at Annual National Rural Electric Cooperative Manager's Conference. Baltimore, Md. August 4, 1988.

Hobbs, Daryl. Enterprise Development: Is It a Viable Goal for Rural Communities? Proceedings of National Rural Entrepreneurship Symposium. Mississippi State, MS. Southern Rural Development Center. 1987.

Hobbs, Daryl. Rural School Improvement: Bigger or Better? The Journal of State Government. Vol. 62:1. Jan./Feb. 1988

Kerr, Donna. Barriers to Integrity. Boulder, CO: Westview Press. 1984.

Marshall, Ray. New Skills for the Changing Economy. in Stuart Rosenfeld (ed). Technology, the Economy, and Vocational Education. Rese. h Triangle Park, NC.Southern Growth Policies Board. November 1986.

Monk, David and Emil Haller. Organizational Alternatives for Small Rural Schools. Department of Education. Cornell University. Ithaca, NY. December, 1986.

Mulkey, David. Rural Education Policy: A Southern Perspective. Paper presented at Rural Development Policy Options Workshop. Birmingham, Alabama. October 4, 1988.

Nachtigal,Paul and Daryl Hobbs. Rural Development. The Role of the Public Schools. Washington, D.C.: National Governor's Association. 1988

National Center for Smaller Schools. Needs in Smaller Schools of the United States. A Study. Las Cruces, NM: The New Mexico Center for Rural Education. 1981.

Pulver, Glen C. The Changing Economic Scene in Rural America. The Journal of State Government. Vol. 61:1. January/February 1988.

Redwood, Anthony. Job Creation in Nonmetropolitan Communities. The Journal of State Government. Vol. 61:1. January/February 1988.

Reich, Robert. The Next American Frontier. New York: Basic Books. 1983.

Rosenfeld, Stuart. The Education of the Renaissance Technician. Foresight. Vol. 4, No. 2. Southern Growth Policies Board. Fall 1986.

Rosenfeld, Stuart, Edward Bergmar and Sarah Rubin. After the Factories. Changing Employment Patterns in the Rural South. Research Triangle, N.C. Southern Growth Policies Board. December 1985.

Ross, Peggy and Stuart Rosenfeld. Human Resource Policies and Economic Development. Chapter 15 in USDA Economic Research Service. Rural Economic Development in the 1980's. Washington, D.C. 1987.

Sher, Jonathan. Class Dismissed: Examining Nebraska's F . . . Debate. Nebraska Rural Community Schools Association. Lincoln, NE. March 19..

Sher, Jonathan. Heavy Meddle. North Carolina School Boards Association. Raleigh, NC. April 1986.

Smith, Dan T. and Alan J. DeYoung. Big School vs. Small School. Conceptual, Empirical and Political Perspective on the Re-Emerging Debate. Journal of Rural and Small Schools. Vol. 2 No. 2. 1988.

Summers, Gene. Industrialization. Chapter 16 in Dillman, Don A. and Daryl Hobbs (eds.) Rural Society in the U.S.: Issues for the 1980's. Boulder, Co: Westview Press. 1982.

Thurow, Lester C. Zero-Sum Solution. New York: Simon and Schuster. 1985.

Tucker, Marc. Facing an International Economy: The Need for Structural Change in Education. in Stuart Rosenfeld (ed). Technology, the Economy, and Vocational Education. Research Triangle, NC: Southern Growth Policies Board. November 1986.

Tweeten, Luther. Education Has Role in Rural Development. Rural Development Perspectives. October 1980. p 9 - 13.

Tweeten, Luther. Rural Labor Market Performance. In Killian, Molly, et. al. (eds.) Symposium on Rural Labor Markets Research Issues. Washington, D.C.: USDA, Economic Research Service. September, 1986. p 5-32

Vaughan, Roger J., Robert Pollard and Barbara Dyer. The Wealth of States. The Political Economy of State Development. Washington, D.C. Council of State Planning Agencies. June, 1985.

Walberg, Herbert J. and William J. Fowler. Expenditure and Size Efficiencies of Public School Districts. Educational Researcher, October 1987. (Reprinted as a Heartland Policy Study No. 22. Chicago, Ill: The Heartland Institute. Sept. 1988.)

Wigginton, Eliot. Sometimes a Shining Moment: The Foxfire Experience. Garden City, N.Y.: Anchor Books. 1986.