

Middle Level School Concerns and Rural School-To-Employment Issues: In Search of Better Ways

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Educational planning continues to overlook differences of kind and degree in rural communities. The educational needs specific to young children, young adolescents, and maturing adolescents are likewise often overlooked in school recommendations. The author considers both these concerns in examining the need to help rural youth become employable in today's changing circumstances. The piece focuses upon the needs of young adolescents in rural school/community middle grades programs.

Introduction: Toward a New Educational Paradigm

The notion of school restructuring continues in popularity. By definition, "restructuring" means rearranging existing elements in a new order or sequence. However, school restructuring frequently fails to go beyond such "cut & paste" efforts. Toepfer (1990) recommended that schools first "revision" or reconceptualize their current curriculum and program goals. In most cases, all elements in an existing school program are not effective. It is necessary to identify (1) which program elements are sufficiently strong to be retained, (2) which need to be improved, and (3) which ones need to be discarded. Effective school restructuring occurs when weak program elements are either strengthened and/or new ones developed to replace them.

It is suggested that our changing post-industrial society requires a new school paradigm capable of accommodating today's educational needs. "Old wine in new bottles" will not provide "new vintages" that can successfully deal with the demands our changing society is presenting to America's schools. Cost-effective education does not necessarily raise educational effectiveness. The latter may require considerable increases in the nation's current financing of schools. However, the current state of our economy dictates that increases in particular categories will require reallocating expenditures from other areas. As the second richest nation in the world, the United States can still have much of what it wants. The issue then is whether or not Americans want schools that will prepare their youth for success in their futures more than they want other things.

In the current graded school paradigm, time is the constant and learning is the variable. The graded school para-

digm poorly serves students capable of learning more than the set amount of content/skills in each grade. It is equally ineffective for students unable to accomplish the minimal expectations in each grade. For learning to be the constant requires an educational paradigm in which time becomes the enabling variable to insure that students can either learn as fast as they can or as slow as they must.

The wisdom of the educational standards movement escapes this writer. What will be accomplished by raising learning standards for students who cannot meet current expectations? It seems necessary to first find ways that help more students achieve existing standards before raising them. Again, students will require time flexibility to achieve existing as well as new standards. Some students will even require more time, perhaps several years over the public school spectrum, to achieve essential standards. Thirty years from now it will not matter if some students needed more time to complete and master particular standards. However, it would be tragic if their inability to do so in fixed, graded school expectations precluded their achieving those standards.

To increase the numbers of students achieving learning standards requires that school programs better accommodate the range of student abilities. Forty-one years ago Goodlad and Anderson (1956) observed that the graded school's subordination of learning to time could not meet the needs of students at-large. Yet, despite the failure of efforts to "soup-it-up," the graded school persists. The evolution of personal computers offers a lesson schools should consider. Regardless of what was added to the "workhorse" Apple II, it could not match the capabilities of the Apple Macintosh, which then replaced it. Our schools are facing changes of kind and degree beyond the challenges of the past. This watershed time requires an educational paradigm that accommodates those concerns.

This has major implications for the educational needs of rural youth. Educators need to identify what can be done to accommodate commonalities as well as differences of

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degree and kind in rural circumstances from other kinds of school/communities. Sherman (1992) discussed how problems of rural youth continue to gain insufficient national attention, and Stern (1994) focused on educational conditions in rural schools which must be corrected. Hodgkinson (1994) dealt with the need to recognize the problems of rural youth to the degree that our nation has recognized those of urban youth. He found that those needs in rural America differ in kind from those in urban and suburban circumstances.

This article considers ways that rural school programs could better prepare youth employability, achieve personal and economic self-sufficiency, and successfully function in our increasingly diverse society. It focuses on the role of middle level education in developing district School-To-Employability or School-To-Work programs (henceforth referred to as STE programs) designed to improve the success of rural students in their adult lives.

System-Wide Planning: A Middle Level Educational Focus

School districts serve three psycho-developmental levels (young children, young adolescents, and maturing adolescents/young adults). Too often, district-wide curriculum is a sequence of casually interfaced, largely freestanding programs within each school level. That lack of vertical program continuity continues to create problems. In addition to addressing pre-K through grade 12 learning needs, each school level should respond to the developmental needs of the learners at that level. District-wide curricular effectiveness resides in: (1) how well programs at each school level attend to the developmental needs of students at that level and (2) and how well elementary, middle level, and high school programs articulate and blend together.

Middle level education refers to school programs involving any combination of grades five through nine for youth between 10 and 14 years of age. The developmental changes experienced in approaching and achieving beginning adolescents during their middle level school years require differentiated educational responses. It is important to separate the needs of young adolescent students from those of elementary level and high school students. Middle level educational effectiveness centers on the degree to which those working with young adolescents understand the developmental and learning needs of that age group (Toepfer, 1992). The wide readiness span during early adolescence dictates that middle level schools provide the widest range of program options that are locally possible.

The high school years are too late to begin helping youth overcome the difficulties confronting them. In particular, district STE programs begun at the high school level will be too little, too late for the mass of students. Elementary level programs need to help children develop aware-

ness and middle level school experiences need to help young adolescents explore work/employment in our changing world. Such a platform will broaden the chances for high school programs to help more students develop and hone their skills for employability.

School completion is both a destination and a journey, and all school levels need to interact to improve school completion rates and the quality of student learning. Curriculum planning at any one school level that is out of context with district-wide needs invariably has diminishing returns. Better results accrue when those efforts are part of effective changes designed to improve success at each level of the school system. "Turf" concerns also reduce interactive participation among school levels. Some unanimity must be reached if the whole of school district programs are to become more than the sum of their parts.

The pace and rate at which individuals learn varies during their school years. Alternative "voyages" planned at each school level should accommodate the changing needs of learners as they move through their local schools. District-wide curricular effectiveness resides in: (1) how well programs at each school level attend to the developmental needs of students at that level; (2) how well elementary, middle level, and high school programs articulate and blend together; and (3) the degree to which district-wide, structural isolation is overcome.

Regardless of local program and housing arrangements, districts benefit from linkages that vertically articulate pre-K through grade 12 programs. Elementary-middle level and middle level-high school transition panels can facilitate that effort (Johnston, Arth, Lounsbury, & Toepfer, 1985). The first panel convenes a representative group of teachers from both the last elementary and first middle level program grades. The second convenes a representative group of teachers from both the last middle level and first high school program grades. Both panels work on program/curriculum/learning articulation issues with the principals and representative parent groups. To strengthen vertical program continuity, curriculum changes made at one school level should not create gaps or overlaps in articulation of programs from one school level to the next. Transition panels also increase the awareness of those needs among all three levels in the local district. Such linkages enhance the articulation of pre-K through 12th-grade programs in school districts (Toepfer, 1986).

As Society Shifts: Rural Educational Concerns

Today, youth face life in a society in which upwardly mobile employment opportunities continue to shrink. School programs must help students understand what they will face in trying to achieve economic self-sufficiency. Hodgkinson (1990) predicted that a majority of the jobs at which Americans will earn a living in the year 2005 will be

discovered between now and then. The shift of requirements for employability will continue to accelerate. As specific occupations are replaced by new ones, to remain employable, workers will need to learn the skills those evolving opportunities will require.

Business and other partnerships have helped establish School-To-Work initiatives in urban and metropolitan areas where a range of large commercial enterprises are in close proximity to schools. However, rural areas are more removed from large business and commercial sectors and employment opportunities there continue to shrink. As small and independent businesses shut down and/or leave those communities, more rural residents either commute to work in metropolitan areas or move there. This will make it increasingly difficult for rural schools to make their youth competitively employable.

Poverty is becoming a common characteristic among American youth (Vanishing Dreams, 1992). Hodgkinson (1990) reported that 40% of the nation's poor were school-aged youth. By the year 2000, school-aged youth will comprise half of the nation's poor, far beyond anything the United States has ever faced, even during the "Great Depression" of the 1930s. More than 15 million American school-aged children are already poor, and 10 million of them have no health insurance. Since 1992, poverty in America is defined as follows (Finlay & Yang, 1992).

- a family of two with an annual income of less than \$8,420.
- a family of three with an annual income less than \$10,560.
- a family of four with an annual income of less than \$12,500.

In 1900, over 70% of Americans lived in rural areas but that has reversed in the intervening years. Census figures from 1990 revealed that 75.67% of Americans now live in urban and suburban settings and 24.33% in rural circumstances (Dimensions, 1992). The impact of rural poverty on children continues to be unseen. People may romanticize the beauties of life in bucolic, rural settings, but poverty is increasing faster there than in urban/metropolitan areas. Johnson (1995) identified the distribution of poor children in our nation. Out of every 100 poor children in America, on the average:

- 45 live in central cities
- 28 live in suburban areas
- 27 live in rural areas

Dudenhefer (1993) discussed poverty problems particular to rural America and the greater isolation of rural youth from health and other services available to poor youth in urban and suburban areas. Hodgkinson (1994) pointed

to the need to recognize the largely unseen dilemmas of poor youth in rural communities. It is critical to recognize and accommodate the differences of kind and degree of rural impoverished youth and prepare them to gain personal and economic self-sufficiency as adults.

The majority of new Americans are culturally, ethnically, and racially diverse. Higher percentages of those arriving here from foreign lands also come from impoverished circumstances. Their impoverishment is further increased by decreasing employment opportunities for their qualifications. While middle-class African Americans, Hispanic Americans, and Asian Americans have done well in recent years, the percentage of minorities that continue to live in poverty has become disproportionately higher (Johnson, 1995).

In 1988, the poverty rate among African Americans was 31.5%, three times that of Caucasian Americans, and 20% for persons of other races (Hodgkinson, 1990). Johnson (1995) identified the disproportionate numbers of poor among new ethnically and racially diverse American groups. Out of every 100 poor children in the United States, on the average:

- 11 live in families headed by persons under 25 years of age
- 30 are Caucasian, non-Latino
- 35 are African American (versus 12 of 100 in the total population)
- 21 are Latino (versus 9 of 100 in the total population)
- 3 are Asian, Pacific Islander American, Native American, or Eskimo Aleut (versus 3 out of 100 in the total population)

Metropolitan areas are becoming more culturally/ethnically/racially diverse. Rural areas tend to be less diverse and tend to become ghettoized around the cultural/ethnic/racial centrality of their local population. People raised in ethnocentrically singular rural communities are moving into larger, more diverse communities where they will need to understand, live, and work with more diverse people. The need of rural youth for experiences with diverse populations during their school years persists.

Issues of Context: Confronting Reality

The need for regional businesses in metropolitan areas to support rural STE initiatives impacts two critical concerns. First, as more and more rural youth work in and/or move to metropolitan areas, it will further ghettoize nondiverse rural communities. Second, rural youth moving to metropolitan communities will have reduced opportunities to achieve economic self-sufficiency and successfully interact with more diverse populations.

Cornbleth (1996) raised some major contextual issues for curriculum and program improvement efforts. "Curriculum out of context" issues included conceptual separation, structural isolation, and sociocultural isolation. "Curriculum in context" issues included conceptual integration, structural contextualization and sociocultural contextualization. The following contextual questions are important in planning effective STE programs.

- What are the demographic, social, political, and economic conditions and trends that seem to shape the existing curriculum and seem likely to affect the desired changes? How is the desired curriculum change compatible with cultural traditions and prevailing ideologies? What influential groups are affected? (What are the potential sources of support and opposition?) What historical, recent, or continuing events are apt to influence the curriculum change effort?
- Which education system components or subsystems could mediate sociocultural influences. How are past experiences with curriculum change likely to influence the present effort?
- What system components are affected? (What roles, relationships, and patterns of activity? At what levels? How is the desired curriculum change compatible or at odds with the prevailing culture of education systems? What are the bureaucratic operating procedures and challenges of formal and informal control of the affected system components? (Who controls what, to what extent, and how?) What and where are the tensions or contradictions within the system that might become loci for curriculum change? (p. 160)

Successful STE programs have some common factors. However, each school/community has to identify and deal with local contextual concerns as they relate to regional and national realities. The differences of kind and degree of rural contextual needs have to be identified and addressed. As discussed earlier, rural youth need experiences that build their multicultural awareness and understanding. Lacking that, they will be at a major disadvantage in moving into communities with substantial culturally, ethnically, and racially diverse populations. Rural STE initiatives need to prioritize and address that need.

Another major concern is the need to gain adequate business partnership support for rural STE initiatives from major corporations and commercial enterprises located outside those areas. Funding of transportation for field trip and other out-of-school experiences in rural communities

is a persistent need. External funding will be needed to transport students in rural community STE programs to study workplaces and bring representatives of those businesses to schools for follow-up activities with students. Similar funding will be needed in rural district service learning programs. Both experiences will help expose rural youth to realities they will face in the larger world of work.

That is particularly important for youth from families with histories of unemployment. Students with limited knowledge of work lifestyles require exposure and orientation to lifestyles based upon employment and employability. Those experiences are essential for students to develop goals that will enable them to escape the unemployment syndrome, become employable, and achieve economic self-sufficiency. Observing workplaces and shadowing jobs build an understanding of the work ethic and its role in becoming economically self-sufficient (Toepfer, 1994).

The needs of segments of the workforce currently coming from rural America differ both in kind and degree from many who were raised in metropolitan communities. To address this, urban and metropolitan area-based businesses need to think systemically, and support regional STE initiatives. It does no good to "lock the barn after the horses have escaped." The cost to the business community of adequately underwriting rural district STE programs will be far less than later supporting people poorly prepared for employability.

A television commercial has an actor portraying a service station mechanic who emphasizes the importance of changing an automobile's engine oil and oil filter every 3,000 miles. As he finishes, a tow truck pulls in a car with a blown engine. The mechanic looks at the disabled car, smiles, holds up a can of the sponsor's oil and says, "You can pay me now, or you can pay me later." STE "ounces of prevention" in rural environments will save untold "pounds of cure."

Isolation and Separation Issues

Between 1900 and 1950, trolleys and local railroad service provided large numbers of rural Americans with frequent, inexpensive transportation to their nearest metropolitan areas (Kunstler, 1993, p. 87). Tunnard and Pushkarev (1963) studied the chaotic impact of super highways that increasingly avoided smaller towns in the 1950s. Prior to that, rural commercial enterprises created local employment and economic vitality by servicing traffic which came through their communities. Berry (1977) noted the impact of that change in rural environments. Whether by design or default, super highways reorganized the balance between rural and larger American communities (Hayden, 1984). Elimination first of economical trolley service and, by 1960, of local railroad transportation separated rural America from

metropolitan life (Jackson, 1985, p. 108). As that occurred, other disadvantages to rural citizens emerged.

Pierce (1983) reviewed the devastating effect of diminished economies on quality of life in rural America. Using Pierce's term "galactic metropolis," Kunstler characterized that impact as follows:

It (galactic metropolis) is where most American children grow up. It is where most economic activity takes place. Indeed, I will make the argument that this process of destruction, and the realm it has spawned, largely became our economy. Much of it occupies what was until recently rural land—destroying, incidentally such age-old social arrangements as the distinction between city life and country life. To me, it is a landscape of scary places, the geography of nowhere, that is an attempt to discover how and why it happened and what we might do about it. (p. 15)

For more than 60 years, this writer has spent summers in a summer colony served by a small village in upstate New York. Those experiences in the village of Silver Creek only reinforce what Kunstler described. Even after World War II, a large local canning factory, a dairy, a hospital, three automobile dealerships, a relatively diverse shopping area, including a department store, a first-run movie theater, two multi-story hotels, and restaurants still thrived in Silver Creek. The opening of the New York State Thruway increasingly diverted business traffic that Routes 5 and 20 formerly brought to and through the village.

The Thruway provided local citizens quicker access to shopping malls and larger businesses that were growing in the region's metropolitan areas. A half-century later, the canning factory, dairy, hospital, department store, other major stores, two of the automobile dealerships, and both multistory hotels are long gone. Silver Creek's restaurants are now either down-scale or "fast-food" places. Small video stores have replaced the closed Geitner Theater with its deteriorating Art Deco architecture. The combined results decimated the village's commercial tax base. Property tax rates have skyrocketed and the population continues to decline. Similar shifts in other communities have characterized the declining economics and quality of rural life across America.

As discussed earlier, the impact upon children raised and educated in those communities is a critical concern. Growing poverty and the flight of commercial enterprise from rural America has eliminated significant employment there and, as in Silver Creek, fewer and fewer high school graduates can live and work in those communities. Increasing numbers must commute to work in metropolitan areas or move and take up residence there.

Those who move into metropolitan areas are often largely unprepared to understand, interact, and live with people of diverse backgrounds. Rural school programs need to help students become employable, achieve economic self-sufficiency, and be aware of and understand people and life in more diverse circumstances.

Developing Effective STE Programs

Current efforts to rethink vocational/occupational/career education are best known through the SCANS Report (Packer, 1991).

Resources: Identifies, organizes, plans, and allocates resources.

- a) **Time:** Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules.
- b) **Money:** Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives.
- c) **Material and Facilities:** Acquires, stores, allocates, and uses materials or space efficiently.

Interpersonal: Works with others.

- a) **Participates as member of a team:** contributes to group effort.
- b) **Teaches others new skills.**
- c) **Serves Clients/Customers:** Communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
- d) **Negotiates:** Works toward agreements involving exchange of resources, resolves divergent interests.

Systems: Understands complex interrelationships.

- a) **Understands Systems:** Knows how social, organizational, and technological systems work, and operates effectively with them.
- b) **Monitors and Corrects Performance:** Distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance, and corrects malfunctions.
- c) **Improves or Designs Systems:** Suggests modifications to existing systems and develops new or alternate systems to improve performance.

Technology: Works with a variety of technologies.

- a) Selects Technology: Chooses procedures, tools or equipment, including computers and related technologies.
- b) Applies Technology to Task: Understands overall intent and proper procedures for setup and operation of equipment.
- c) Maintains and Troubleshoots Equipment: Prevents, identifies, or solves problems with equipment, including computers or other technologies.

Few high school programs presently provide even our best high school graduates with those skills. Graduating high school seniors cannot develop the previously listed SCANS skills if School-To-Work programs are initiated at the beginning of high school. High school "top-down" educational expectations continue to fail. Children grow up, not down, and effective school programs develop in a similar sequence.

Toepfer (1994) modified and augmented the goals of Stemmer, Brown, and Smith (1992, p. 33) for middle grades STE exploratory programs.

Academic Skills: (Those skills that provide the basic foundation for a person and are necessary to get, keep, and progress on a job.)

- Understand spoken language and speak in the language in which business is conducted
- Write in the language in which business is conducted.
- Understand and solve problems involving basic arithmetic and the use of the results.
- Use library and research skills.
- Access and use specialized knowledge when necessary (e. g., the sciences or skilled trades) to get a job done.
- Think and act logically by developing the attitudes and behaviors required to get, keep, and progress on a job.

Personal Skills: (Those skills related to developing the attitudes and behaviors required to get, keep, and progress on a job.)

- Identify personal, job-related interests, options, and opportunities.
- Demonstrate personal values and ethics in the workplace (e. g., honesty, fairness, and respect for others).
- Develop tentative career plans.
- Attend school/work daily on time.
- Meet school/work deadlines.

- Exercise a sense of responsibility.
- Demonstrate self-control.
- Pay attention to details.
- Show pride in one's work.
- Be enthusiastic about things to be done.
- Follow written or verbal directions.
- Learn to work without constant supervision.
- Learn new skills and ways of doing things.
- Identify and suggest new ways of doing things.

Teamwork Skills: (Those skills needed to work with others on a job.)

- Identify with the goals, norms, values, and customs of a group.
- Know the group's rules and values.
- Actively participate in a group.
- Listen to other group members.
- Communicate with all members of a group.
- Use a team approach to identify problems and devise solutions to get a job done.
- Be willing to compromise if necessary to accomplish the goal.
- Exercise "give and take" to achieve group results.
- Function in changing work settings and in changing groups.
- Determine when to be a leader and when to be a follower depending upon what is necessary to get a job done.
- Show sensitivity to the needs of women and ethnic and racial minorities.
- Be loyal to a group. (Toepfer, 1994, p. 61)

Again, programs appropriate at each local school level must be articulated across all the district. Early childhood/elementary STE programs should focus on building children's awareness about work and careers. Middle level STE programs should build upon that awareness in studying local, regional, and national employment issues and exploring local community work/career opportunities and needs. That foundation will provide vertical context for high school STE programs that develop advanced skills for transition to employability or postsecondary education.

Building Young Adolescent Connections

Building upon their earlier childhood experiences, most people largely fashion their attitudes about learning and work, as well as their enduring adult values between 10 and 15 years of age. Relatively few people substantially change their beliefs about those attributes after reaching high school (Toepfer et al., 1989).

The Carnegie Commission Task Force Report on Early Adolescent Education (Hornbeck, 1989) stated that for many students, their age 10- to 15-year-period is "the last best chance to avoid a diminished future (p. 8)," viewing middle level schools as "potentially society's most powerful force to recapture millions of youth adrift (p. 8)." More appropriately responsive middle level learning experiences assist young adolescents in discovering who and what they are, and who and what they want to and can become.

Unfortunately, by age 15, substantial numbers of American youth are at risk of reaching adulthood unable to meet adequately the requirements of the workplace, the commitments of relationships in families and with friends, and the responsibilities of participation in a democratic society. These youth are among the estimated 7 million young people—one in four adolescents—who are extremely vulnerable to multiple, high risk behaviors and school failure. Another 7 million may be at moderate risk but remain a cause for serious concern. (p. 8)

With those words, the Carnegie Task Force focused on the critical role of the middle level school years in that effort. By becoming involved in local community issues and needs, young adolescents can develop a personal sense of altruism and proactive social values and behaviors. One's capacity to help with actual concerns, issues, needs, and problems in their school/community enhances their personal sense of belonging. Well-conceived service learning experiences organized under the direction of the school can provide such opportunities (Schine, 1990). Experience has shown that isolation from and lack of involvement contributes to feelings of being ignored and not needed in that community (Obert, 1995). Toepfer (1996) commented:

Service learning also creates specific opportunities for applied learning that can reinforce and strengthen particular concepts, information, processes, and skills taught in middle level curriculum areas. Such experiences also provide opportunities for students to relate their learning in school to community activities which help them develop additional skills and attitudes.

Earlier, Rolzinski (1990) noted the following:

The developmental changes that occur during early adolescence make middle school an especially effective time to implement service into the curriculum. It is a time of great change in which youth are vulnerable to many influences, especially those of their peers. Early adolescence can be a turning

point for many youth, a time when they make choices that set them up for a lifetime of success or failure. Service learning provides positive experiences that significantly affect the attitudes, decisions, and subsequent behavior of middle school students at this critical time in their lives. These students learn about their responsibility to contribute to others and begin to feel valued and accepted for their meaningful participation in their community.

This involvement has the potential to prevent many of the problems characteristic of the low-achieving student and the high school dropout. Service learning also helps adolescents develop the strength of character or resiliency necessary to withstand peer pressures.

Duckenfield and Swanson (1992) found that service learning activities uniquely meet the following needs of young adolescents:

- to feel accepted by peers and others
- to see concrete outcomes from their efforts
- to have opportunities for creative expression
- to have opportunities for self-definition
- to participate and be part of a group
- to learn decision-making through experience
- to explore adult roles and career opportunities
- to interact with people of diverse backgrounds
- to engage in physical activity
- to take risks within a structured environment
- to gain competence and achievement
- to make a difference in the community (p. 18)

Middle level exploratory service learning initiatives help young adolescents apply skills and information learned in school on here-and-now needs and problems in their communities. They develop relationships and completion skills, both essential to becoming employable and achieving economic self-sufficiency (Toepfer, 1995).

Service learning affords particularly excellent opportunities for rural students to work on critical issues in their communities. They learn about work, the reality of a work ethic, and identify personal employment and postsecondary education interests. Rural educators would do well to consider how service learning can deal with specific needs in their school communities. Parsons (1993) identified a number of approaches for developing effective service learning opportunities in rural circumstances. Beyond its contribution to improving the employability of rural youth, service learning programs have contributed to rural community development. Miller (1995) discussed ways that

service learning has facilitated economic development in rural communities.

Conclusion: Thinking Like a System

Beane, Toepfer, and Alessi (1986) developed a cyclic model to engage school and community in identifying and developing curriculum and school programs. That interaction is essential to identify and deal with local sociocultural contextualization needs of youth in rural America.

Action in two areas is needed to develop that homeostatic capacity. First, broadened lay participation needs to involve all segments of the community in planning with regional employers. That must then be interfaced with expanded curriculum/program development by the professional educational staff. Beane et al., noted:

Broader lay involvement and more sophisticated professional planning skills will facilitate the notion that prevention is one of the stabilizing characteristics of systemic curriculum planning. . . . This ability to stabilize and maintain equilibrium in a changing environment is characteristic of systemic capacity and adds a powerful dimension to the district curriculum planning program. (pp. 341-342)

That planning is essential to develop and provide effective regional and rural STE school programs. The approaches discussed here can help rural youth increase their employability and achieve better personal and economic self-sufficiency. That success would be a major force in stabilizing and improving life in rural America in the approaching millennium.

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