

Families and Schools in Rural Appalachia¹

Edward E. Gotts²

Appalachia Educational Laboratory, and Madison State Hospital

Richard F. Purnell

University of Rhode Island

A literature review revealed conceptual elements and approaches that have been productive in the study of (a) rural education and (b) rural families and children as they interface with schools. The Appalachian region is considered relative to these same issues. For nearly two decades the Appalachia Educational Laboratory has pursued systematic research and development aimed at improving the effectiveness of rural education by strengthening working linkages between families and schools. This programmatic work is summarized in order to illustrate—through both its breadth and specificity—the continual interchange which necessarily occurs between research and successful community practice. Implications and recommendations are considered.

This report begins by identifying parts of a framework to guide research in rural psychology relative to schools and families. Next a synopsis is presented of (a) the state of rural education and (b) related empirical knowledge about rural families and children. Pertinent facts about education in the Appalachian region are briefly summarized. Having established this overall context, we consider programmatic research and development conducted by the Appalachia Educational Laboratory (AEL) over nearly two decades regarding the interface of families and schools in rural Appalachia. Finally, we conclude with implications and recommendations.

¹These studies were conducted under various contracts and grants from the National Institute of Education.

²All correspondence should be sent to Edward E. Gotts, Madison State Hospital, Madison, Indiana 47250.

NEGLECTED RURAL RESEARCH

A review of *Psychological Abstracts* from 1966–1983 revealed a sparse data base on rural psychoeducational issues and on the interface between families and schools. Other collected works support the conclusion that too little is known in this area to guide practice reliably (Hersen, Kazdin, & Bellack, 1983; Reynolds & Gutkin, 1982). A recent collection by Childs and Melton (1983) provides a notable exception.

Related social science literature has suggested that rural conditions create an environmental press for persons to behave as generalists, while urban conditions foster increased social organization and role specialization (Beals & Hojjer, 1959). Wirth (1938–39) and his successors have contrasted urban with rural settings by associating the former with occupational diversification and role segmentation, resulting in functional interdependence of people; high mobility with attendant anonymity and reduction of social intimacy; secondary or formal group associations (vs. primary, informal, face-to-face relations); and reliance on less direct means of social control and regulation. The relevance of these perspectives and others (e.g., Barker, 1968; Naisbitt, 1984) to the analysis of school–family relations becomes apparent over the course of this report.

RURAL EDUCATION

Small, Undermanned Environments

Barker's (1968) widely cited research on small rural schools, as contrasted with larger schools, showed that students in the former settings participated more extensively and responsibly and experienced greater satisfaction as well as pressures (Barker, 1968; Barker & Gump, 1966). The less well-known national study of Douvan and Adelson (1986) reinforced Barker's observations and extended them in some ways.

Likewise, some of the positive aspects of small rural schools have been noted in other research, including their instructional effectiveness (Schneider, 1980; Sher, 1983), public support (American Association of School Administrators, 1982), reputation (Gallup, 1977), and satisfaction among educational leaders within them (Dunne, 1983). The foregoing qualities appear to be associated with small-town schools more than those in isolated rural settings.

School Consolidation and Control

In spite of the many indications that small is beautiful, small schools have been the continuing object of consolidation efforts since 1918 (Covert, 1930), with the Conant report (1959) being the most influential of these in more recent times. Yet the evidence indicates that these efforts have neither persisted nor spread (Stutz, 1974). Moreover, countercases have been presented to the effect that consolidation has been oversold and cannot deliver on its promises (Sher, 1978, especially p. 17; Sher & Tompkins, 1977, especially pp. 59-60; Wynne, 1978).

It is important to recognize that consolidation pressures came from proposed solutions to urban problems rather than rural ones (Rosenfeld & Sher, 1977). Imposing this solution on rural schools created new problems (Helge, 1984) and made the issue of school control a central one in the minds of rural constituents (Dunne, 1983; Rosenfeld & Sher, 1977). First the issue was one of state versus local control, but subsequent developments elevated it to a federal versus local concern (Gallup, 1982; Herriott, 1980). It has further been inferred that some forces favoring consolidation may be found at the local level. Here the issue appears to involve social-class conflict with local educators and middle- and upper-class citizens favoring a more urbanized school (Weaver, 1977). Unfortunately, much energy has been misdirected to the control issue at the expense of the more central issue: educational quality. It appears essential to neutralize or set aside the control issue so that quality and efficiency can be considered and addressed in light of local circumstances.

Scarce Resources and Educational Equality

Another crucial issue in rural education is how to achieve equity in the face of insufficient resources. Selective outmigration of younger, more upwardly mobile adults in the past has created a top-heavy and bottom-heavy age structure in rural areas, leaving a smaller proportion of adults in their productive years to support schools and other services (Flora, 1976; Fratoe, 1978; Ross & Green, 1979; Zuiches & Brown, 1978). This imbalanced age structure poses special difficulty for funding school operations. Consequently, rural per pupil expenditures reach only 75% of those in urban areas (Tamblyn, 1973), while efforts to equalize resources have failed (Benson, 1961; U.S. Senate, 1975).

Rural school finances are also unfavorably affected by insufficient industry to offset the property tax burden (Sher, 1978) and small, narrow

economic bases (Herriott, 1980). The magnitude of their problem is underlined by these facts: Of the 250 poorest countries in the United States in 1975, all were rural; they accounted for 40% of all persons below the poverty level in the entire country (American Association of School Administrators, 1982). Inadequate school financing has, in turn, been linked to low teacher pay (Sher, 1983), lower student competency attainment (Sher, 1978) despite comparable rural-urban ability levels (Kaufman & Doppelt, 1976), less participation in higher education (Abt, Bock, English, & Marx, 1977), and lower participation in both basic education and vocational education (Fratoe, 1978).

Not surprisingly, curricula designed for rural children are almost nonexistent (Sher, 1978) and these children miss out on other innovative practices (Dunne, 1983). Wilson's (1982) massive literature review failed to uncover research specifically designed to answer questions faced by rural school administrators. Most programs of teacher preservice preparation and in-service education do not deal with rural issues (Dunne, 1977; Massey & Crosby, 1983). The resources are not sufficient to the challenge.

Rural Diversity and Commonality

Diversity and Conflict. Consolidation and other urban-oriented solutions seek standardization, but diversity is the norm for rural communities and their schools (Sher, 1983). Diversity must be addressed. As an issue, diversity has magnified the complexity of service delivery to low-incidence special education populations (Helge, 1984). Social conflicts and divisions in rural communities complicate and sometimes defy all efforts to find unique solutions (Herriott, 1980; Weaver, 1977). Recent immigration into rural areas has accentuated social conflict by introducing newcomers with differing ideas, styles, expectations, and values (Herriott, 1980; Naisbitt, 1984; Ross & Green, 1979). The histories of rural school systems have added to their diversity and complexity over the past 50 years via the reorganization of districts from 128,000 to around 16,000 (American Association of School Administrators, 1982) without regard to the ecology of community and place.

Commonalities. Beyond diversity, rural communities and their schools also display points of commonality. Rural schools are similar throughout the developed world (Sher, 1983). Great consistency of public attitude toward the schools is apparent when the views of rural and urban parents are contrasted across a variety of questions (Gallup, 1977, 1979, 1980, 1981, 1982, 1983); rural-urban differences follow the perspectives identified earlier under the heading "Neglected Rural Research." These commonalities make it possible to speak of a preferred interface of rural schools with mental health providers (Flax, Wagenfeld, Ivens, & Weiss, 1979; Herjanic, 1972; Hollister, Bentz, Miller, Edgerton, & Aponte, 1973).

In more homogeneous rural communities, schools are a source of identity and pride (Herriott, 1980) and act as one of the major employers in many rural areas. The school thus is the center of community life; participation in its events is not simply entertainment but above all an affirmation of community membership and life (Dunne, 1983). Rural citizens accordingly are more likely to have attended a meeting in a local school building in the past year (Gallup, 1979).

AEL RESEARCH ON APPALACHIA

Appalachia is a primarily nonurban region comprising all of West Virginia and parts of 12 other states in the northeast and southeast, and includes 397 counties in and around the Appalachian mountain chain (Bertram, 1975). The population of this region exceeded 20 million in 1980, amounting to about 8.9% of the total population of the United States. The same general trends of rural-urban differences found in the rest of the country are generally replicated in Appalachia, with differences sometimes more accentuated here than elsewhere (Appalachian Regional Commission, 1979, 1981; CRS, 1978).

Although Appalachia is much like the rest of rural America, existing data did not answer many of the questions raised when the Appalachia Educational Laboratory (AEL) began its efforts in 1966 to improve educational quality and equity in its seven-state region (Alabama, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia). This process commenced with an immediate assessment of regional needs and resources and the development of plans of action. From this process a series of studies was initiated on ways to promote rural children's learning and development in a context of low population density, scarce resources, mountainous topography, and traditional culture, including familism (Gotts, 1983).

The initial studies were concerned with (a) voluntary educational cooperatives to facilitate economies in purchasing and the sharing of scarce resources, (b) television and other media to overcome isolation and rugged topography, (c) early childhood education to promote development in the absence of kindergartens, and (d) traveling or mobile education units for quick transport of personnel in support of an "educational park" approach. All of these resource-extending and enriching innovations were seen as being coordinated and delivered through the cooperative.

The present review considers only those studies that bear upon the interface between the school and the Appalachian rural family and its children. Particular attention is given here to new program approaches and knowledge generated, with replications reported as these suggest the transportability and generalizability of results.

Appalachian Preschoolers and Television

The first research questions raised were: In what behavior areas do Appalachian preschoolers require instructional emphasis? Does it appear feasible to deliver early childhood education using a threefold approach (a) daily television programming, (b) weekly home visits by paraprofessionals, and (c) a mobile faculty for weekly group sessions? During 1967–1968, two West Virginia University psychologists conducted a detailed literature review; studied a carefully selected sample of 3½- to 6½-year-old farm and non-farm rural children and their families from a two-country area of northern West Virginia that approximated media census counties for the region; using their data, evaluated the apparent feasibility of the proposed delivery system; and established a comprehensive set of behavioral objectives for preschool children based on results of the first two tasks (Hooper & Marshall, 1968).

Their preliminary study of children and families indicated that over 90% of the families had television sets; 80% of the children were reported to view television two or more hours per day. Family units were generally functionally literate; about half of them had completed all or most of high school. A majority (65%) aspired to have their children attend college. This high level of aspiration may have related in part to the proximity of the state's main university to the sampling area. An interesting finding was that parents read less to later-born children: firstborns (nearly 85%), second borns (about 50%), and third borns (only 12%).

Contrary to the then-prevalent "cultural deprivation" construct, Hooper and Marshall (1968) concluded that intellectual performance of the children revealed diversity rather than cognitive deficits. Mean individual intelligence test scores fell near the national average (for 8 Age \times Sex subgroups means ranged from 91.9 to 106.1 IQ on the Stanford-Binet Intelligence Test; grand mean 101.04). On the other hand, receptive vocabulary scores averaged below national norms (for the eight subgroups, Peabody Picture Vocabulary Test means ranged from 82.10 to 95.70 IQ; grand mean 90.62). Content analysis of the test battery results indicated the children consistently passed more performance test type items than verbal items when the items were equated for developmental level of difficulty based on national norms. Distinct patterns of strengths and weaknesses were noted on the Illinois Test of Psycholinguistic Abilities, (e.g., at the 3½-year level, children performed at means for the norm group only for Auditory Vocal Association, while at the 6½-year level, children fell below norms on all but two subtests: Auditory Vocal Sequencing and Visual Decoding). Their performance on Piagetian tasks was age-adequate. The younger children did somewhat better on average than the older ones in the sample in comparison to norms (e.g., see Illinois Test of Psycholinguistic Ability above), suggesting increased difficulty toward the

time of entrance into school (Hooper & Marshall, 1968). The pattern of abilities noted provided some useful direction for the question of instructional emphasis, as well as challenging the stereotype of uniform cultural deprivation. The configuration of child and family characteristics discovered made the proposed delivery system seem feasible.

Home-Oriented Preschool Education (HOPE)

The foregoing research resulted in a decision to proceed with a full-scale community experiment. This was to provide a more definitive answer to the question: Is it feasible to operate this kindergarten-alternative program within the context of public schools through the voluntary cooperative? Second, the question was raised: With what results?

The three-component HOPE delivery system (i.e., television, home visitation, and group experience) was operated in a primary prevention type experiment from 1968–1971 (i.e., comprising three annual cohorts for a total community sample size of around 700) with randomly selected samples of families of preschool children in a four-country area of southern West Virginia. The four-country area targeted for this study lies within central Appalachia, a subregion that is known to be more seriously disadvantaged than either the northern or southern subregions (Appalachian Regional Commission, 1979, 1981). After random selection from the region, families were further randomly assigned to experimental (2/3) and community control groups (1/3). An outside control group—beyond the television signal range—was selected as well (60 cases per program year). Families designated community control were those who had access to the television signal only. All of the experimental subjects received home visitation as well. Half of the experimental group also received a weekly half-day group experience in a mobile classroom facility. These four groups may be designated: outside control (C); TV-only, community control (TV); experimental with only home visitor added (TV-HV); and experimental with the further addition of group experience (TV-HV-GE or Pkg). The program was operated jointly by AEL and the four country school systems. All personnel except the field director were recruited locally and trained to perform their duties within HOPE (Gotts, 1983). It is important to note that the program was conducted with sensitivity to the school systems, the staff, and the families involved.

A high rate of parental involvement in the instructional process was achieved in the two experimental groups (e.g., in 1969–1970, 94.76% of parents reported viewing the TV series with their children 2 or more days per week; TV-only parents had a surprising 71.88% covieing record). Parents expressed articulated enthusiasm for all of the components in which

they and their children participated (e.g., experimental families rated the printed materials good to excellent 98.70% of the time; they rated home visitor explanations as good to excellent 100.00%; the vast majority, 96.05%, wanted weekly versus less frequent visits).

On all the following statistical comparisons of posttest scores, children's corresponding pretest scores were entered as covariates. (a) On a curriculum specific test of conceptual development, both experimental groups were similar and outperformed both control groups (e.g., on 1970-1971 subtest 6: Pkg 42.8; TV-HV 41.4; TV 34.4; C 29.0; $F = 26.74$, $df 3, 387$; $p < .01$). TV-only also surpassed C. (b) On a receptive vocabulary test, the Pkg and TV-HV groups' performances were not different and exceeded those of both TV and C (Pkg 45.50; TV-HV 43.56; TV 38.50; C 38.53; $F = 13.00$, $df 3, 373$; $p < .01$). (c) A battery of psycholinguistic tests did not differentiate consistently enough among the four groups over the 3 years to suggest that the program impacted this area beyond developmental increments for all groups. (d) On a visual-motor test, the groups were consistently ordered from highest to lowest: Pkg, TV-HV, TV, C (e.g., respectively, 33.23; 31.83, 29.79, and 23.75 in 1970-1971; $F = 7.06$; $df 3, 392$; $p < .01$). Overall results were similar across the 3 years of experiment (Gotts, 1983).

Differences between the two control groups favoring TV over C suggested that exposure to the TV alone resulted in immediate cognitive gains. The home visitor portion of the experimental variations appeared to account for much of the balance of the cognitive gains for both TV-HV and Pkg groups. An observational study of social and emotional gains, on the other hand, revealed specific effects of the experimental parts (e.g., on a measure of curiosity-approach Pkg 51%; TV-HV 28.13%; TV 17.07%; C did not take part in this phase of the study; on "responding constructively to peer," means were Pkg 3.89; TV-HV 4.36; TV 2.13; $F = 9.59$, $df 9, 59$; $p < .01$).

At the close of this phase of the work it was concluded that this delivery system could be operated by public schools with direct involvement of AEL staff. It was further concluded that HOPE achieved good user acceptance and produced relevant early childhood outcomes in direct correspondence to the extent of the subjects' exposure to program components.

HOPE Replications and Comparisons

Additional questions were raised by these results: Could the program be replicated elsewhere without direct involvement by AEL? How would the "graduates" compare to those attending a regular kindergarten?

Over the period 1970–1973, these questions were explored. First, two half-day kindergartens were in operation in 1970–1971 in the HOPE area, permitting direct comparison. The K children, like the TV had access to the TV signal. They lived in slightly more urbanized communities. Typical results are illustrated by the following scores on the curriculum specific test, part 2: Pkg 46.6; TV-HV 44.4; TV 39.0; C 36.8; K 42.0; $F = 5.41$, $df 4, 199$; $p < .01$; any difference of 4.4 is significant at the .05 level by Dunnett's test). Surprisingly, TV did not differ from K on any of three parts of the test, suggesting that this aspect of the early childhood curriculum could be presented successfully via television (Gotts, 1983).

The replications were conducted entirely by other agencies using AEL-prepared materials but without direct AEL staff involvement beyond training and technical assistance. Sites were situated in the Appalachian parts of Alabama, Ohio, Tennessee, and Virginia. Two additional sites operated in West Virginia. Site selection was based on similarity between local circumstances and the design aims of HOPE, i.e., these communities contained physically isolated population pockets, provided no preschool programs for the general public, and primarily cared for young children in their own family homes during daytime hours (Gotts, 1983).

Again, generally only the curriculum-specific conceptual test was used in the replication studies. Moreover, program variations were dropped, and only the Package version of HOPE was used, in view of its broader range of previously demonstrated effects. Program evaluations and analyses were conducted independently on a site-by-site basis. In each instance, the conclusion was drawn that the Package version of HOPE was workable in that particular community and that the learning outcomes represented an acceptable early childhood education alternative in the absence of local kindergartens (Gotts, 1983).

Some interesting sidelights occurred during these years which attest to the excitement that is generated when behavioral scientists find something that actually works in rural areas. HOPE was selected for presentation at the White House Conference on Children in December 1970, as a promising practice for rural areas. The National Broadcasting Company prepared a half-hour documentary on it in the same month. It was chosen by the National Center for Educational Communication as one of the 10 most innovative programs in the country and featured thereafter in a traveling U.S. Office of Education exhibit throughout the period 1971–1973. In April 1973, the U.S. Information Agency produced a brief documentary on the Ohio HOPE replication site for use in their "Vision USA" series for overseas distribution. So successful were the replication sites in Alabama and Ten-

nessee that they were selected by the National Home Start experiment as two of their 16 demonstration sites for the home-based version of Head Start — and the only school-based sites in that demonstration experiment.

Durability of HOPE

A more fundamental question remained: How durable are the results of HOPE? To assess this, a major follow-up study was conducted with the three within-community groups. The outside controls, having since been through totally different school systems, no longer could serve as comparison subjects. All local personnel were recruited and trained to gather the data. The main data-gathering phase was in 1979–1980, providing on the average about a 10-year follow-up. The former preschoolers were now mostly in junior high school. Subsequent follow-up work through 1984 — and still ongoing — seeks to see whether differences are evident between the experimental and control groups in the years immediately following their scheduled graduations from high school.

The 10-year follow-up drew upon school records (e.g., achievement tests, grades, attendance, retention in grade), a teacher-completed behavior checklist, and two kinds of parallel interviews with children and parents separately (Gotts, 1983). At follow-up, with a sample exceeding 200 parents and 342 children, differences persisted between the experimental and control conditions, favoring the former groups. For these later analyses, the C group is not available. Instead the two experimental groups, Pkg and TV-HV are combined (Experimental) and compared to the community control (Control). The experimental group children outperformed the control group in many of the respects examined, with some differences persisting throughout school and others lasting only during the early grades. Differences between experimental and control group parents were likewise consistently noted at follow-up, with comparisons favoring the former. Thus program results persisted in both children and parents. Since the data and data analyses varied widely across comparisons, they are expressed in a variety of forms in Table I, based on representative findings.

Preparing for Widespread Dissemination

Without a doubt, the replication sites were special. Three were in areas already served by voluntary education cooperatives started by AEL. This left unanswered the question of whether a wide range of more typical Appalachian communities possessed the necessary characteristics to have HOPE succeed. For example, were parents sufficiently literate? Did they receive television?

Table I. Comparison of Experimental and Control Samples at Follow-Up—Variable Format Analyses

Variable	Group	
	Experimental (Pkg and TV-HV)	Control
For child		
Attendance (Grades 1-5)	95.52% ($F = 5.58, df 1, 274, p < .01$)	93.40%
Personal disorganization (M)	1.66 ($F = 4.58, df 1, 301, p < .05$)	3.28
Symptoms depression (M)	0.10 ($F = 6.10, df 1, 301, p < .05$)	1.21
Coping successfully	72.00% $\chi^2 = 3.85, df 1, one-tailed$ $p < .05$)	60.00%
Retained in grade	5.00% ($\chi^2 = 10.35, df 1, one-tailed$ $p < .01$)	25.00%
Grade point (overall)	$(r = .16, df 328, p < .01,$ favors Exptl)	
Achievement test (mean)	$(r = .13, df 328, p < .01,$ favors Exptl)	
Ability test (mean)	$(r = .15, df 338, p < .01,$ favors Exptl)	
For parent		
Academic orientation (M)	71.37 ($t = 2.68, df 210, p < .01$)	65.80
Home environment (M)	4.41 ($t = 2.43, df 210, p < .05$)	4.11
Support of development (M)	2.59 ($F = 23.51, df 1, 207, p < .01,$ low mean signifies superior support of teaching and learning for the child)	3.16

Were parents available to be involved? Were their learning expectations for their children compatible with HOPE's objectives? Did they have in their homes culture objects needed to support learning, and would they learn to use them for this purpose? These and other questions of this sort were posed in 1973-1974 to nearly 700 parents of preschool age children from AEL's seven-state region through an extensive in-home contact involving assessment of the home environment and the parent's orientation and skills. Local personal were selected and trained to contact families and gather data. This sample was drawn randomly from a larger sample to approximate the 1970 census (Shively, Bertram, & Hines, 1975). Concurrently, AEL conducted a collaborative study with the U.S. Bureau of the Census in which original data records were compiled for the first time for parents of preschool children from the 397 Appalachian countries (Bertram, 1975).

AEL Parent Survey. Although matched to the 1970 census, the income of the AEL sample was somewhat lower than that of the reference group. Most often the children's mother was home days (79.7%), with child supervision by other family members in the home accounting for an additional 13.6% of child care. Overall 93.3% of children spent their day at home. Materials available in the homes to support HOPE-type program were as follows: newspaper (71%), magazines (75%), dictionary (77%), encyclopedia (48%), library books (78%), radio (95%), telephone (70%), television set (93%). From 69 to 83% of parents could read and carry out a simulated instructional activity on the initial attempt. Visiting educational places with their young children was not, however, common among these parents. The expectations of these parents for their children's performance was high, with over 80% expecting their children to accomplish specified behaviors by the start of first grade (Shively et al., 1975). These parents, thus, in the respects measured, appeared able to support most or all of their child's participation in HOPE.

Census Bureau Study. Although it lacked the depth of focus of the former study relative to particular HOPE program issues, the study completed by Bertram (1975) together with the Census Bureau, was more satisfying in terms of adequacy of sampling and specificity to any original community where an implementation of HOPE might be considered. Because of the limited protocol used by the Census Bureau, information was primarily demographic. The median years of education of both mothers and fathers of Appalachian preschool children was 12.2 years. Only 16.1% of children were enrolled in preschool or kindergarten, with a distinct tendency of preschool participation, public or private, to increase with the occupational level of the head of the household. Disability ran high in this population of younger adults: heads of household (8.7%), mothers (4.1%). Females headed only 7.26% of these households, but this figure was 26.13% among blacks. Blacks accounted for about 5% of Appalachian population. Median income was \$6,689 (1970), with 16.6% of families below the poverty level. Nevertheless, television was available in 96.7% of the homes, 92.7% had one or more automobiles, and 77.6% had telephones available (Bertram, 1975).

Appalachian Stereotype Reconsidered. The definitive figures from the two preceding studies run counter to stereotypes of Appalachians as sly but uneducated hillbillies. We make this point for emphasis, because we were confronted for 6 years prior to this time by a stream of well-meaning outside experts who "knew" that HOPE could not be delivered in Appalachian communities, because they could not read, and they did not really care. These findings gave us breathing space to complete and publish some materials that were needed for the widespread implementation of early childhood programs using home visitation (e.g., Gotts, 1977).

Family Needs and Networks

In order to understand better and respond more wisely to the differing circumstances faced by particular subgroups of families, in 1978 we raised the questions: What are the support networks of rural families like? What are their needs and problems? Do isolated rural families differ from other families in the same ways that nonisolated rural families do? To answer these questions, communities were selected to represent Appalachian rural and urban groupings, and random samples of parents of third graders were drawn from each community (total sample = 1,113) and interviewed by local persons trained and monitored for quality of performance by AEL (Snow, 1981). Intercoder agreement for various parts of the data ranged from 97.2 to 99.6%. Below are summaries of some of the contrasts found (χ^2 , $p < .05$, df variable).

Rural-Urban Comparisons. In comparisons of the total rural and urban groups across sites, the following differences were noted: father absent (rural 16.5%, urban 28.7%); mother employed full-time (rural 27%, urban 39%); and reports having "special problems as a parent" (rural 18%, urban 26%) (Snow, 1981). These differences signaled the greater distress of urban family structures. Another series of comparisons suggested that urban parents rely more heavily on advice and assistance provided through formal and professional channels: Urban parents received more child-rearing advice from magazines, pamphlets and newsletters, and newspapers but not from books or television; urban parents found both talks with teachers and talks with physicians more helpful; and more rural mothers belonged to no formal organization (rural 42%, urban 23%), with smaller father differences (rural 49%, urban 38%).

Urban parents were aware of a greater variety of program assistance for meeting specific types of parenting needs. Resource awareness increased regularly with educational level among both rural and urban parents. Rural parents often found less help available locally than needed (rural 30%, urban 17%). Rural parents, nevertheless, used local programs and services as often, apparently accomplishing this by using a larger percentage of the actual services available (rural 26.4%, urban 17.6%) (Snow, 1981). In personal terms, these results indicate the effects of resource scarcity on parents of third graders.

Isolated Rural Families. The second set of comparisons focused on just the isolated rural (IR) families, comparing them to the combined urban and other rural parents. These amounted to only about 20% of all rural families. These parents had an exceedingly low educational level, with neither parent having completed high school in 62% of the families versus 26% for all other families. These isolated rural families received less help from maternal grandmothers (IR 32%, others 52%) and neighbors (IR 14%, others 28%). Con-

sequently, they shared responsibility for child care less often and, when they did, it was more often with one of their older children (IR 49%, others 30%). Although isolated rural talked less frequently with their children's teachers, further analysis revealed that these differences disappeared when educational level was controlled. Their tendency to belong to no formal organizations was exceedingly high, as shown by a special three-group contrast: (IR 63%, rural 42%, urban 23%). Although large SES differences were present for this variable, IR families were significantly more often outside all organizations even with social class controlled. Isolated parents less often had a personal confidant (IR 64%, others 75%) and talked less often with other parents (IR 57%, others 79%). SES differences were present for the latter of these indicators but isolation also showed its effects within both higher and lower class families (Snow, 1982).

Community Contrasts. The overall picture emerging from these two series of comparisons is that isolated rural families are in fact not only physically but also socially isolated. They appear to have thinner support networks than either other rural or urban families when this is considered from the standpoint of both formal and informal supports. They are very different. Nonisolated rural families appear to be more stable than urban families; they are affected by a sparsity of resources in their rural communities but seem to compensate for this to some extent by overutilizing available resources; and urban parents more heavily utilize and apparently benefit from formal supports in their communities. It is apparent that urban and rural family situations are no more isomorphic than are rural and urban schools.

Teachers and Parents: Working Together

To this point we have raised a variety of questions relative to the families of younger children and have seen some ways that rural families are helped by schools as well as others. What about families of older children and adolescents? Does ruralness call for different home-school linkages beyond early childhood? Our purpose in raising these questions was to begin to discover and to design interventions for use through the secondary level. Two separate studies were conducted, one with teachers and the other with parents.

Teachers' Practices. A random sample of 446 teachers was selected from 17 communities, which were among those that participated earlier in Snow's study (1981). This design was to permit subsequent comparisons of community data across the studies. Local supervisory personnel at each site helped with the data collection. Overall return rate for questionnaires distributed to the sample was 82%. The questionnaire explored teachers' preparation for and experiences in school-family relations as well as their views of this

subject. In addition to individual item responses, teachers' mentions of their types of interactions with homes were combined into a 13-item "participation" scale. The present review examines the questionnaire responses of rural (R), small town (ST), and urban (U) teachers (Purnell & Gotts, 1984).

On the participation scale, urban teachers significantly more often mentioned involvements with homes than the other groups, but the differences were small (U 10.4, ST 9.4, R 9.3). Regular teacher attendance at PTA/PTO meetings was highest in small towns, whereas rural teachers were more often total nonattenders (R 12%, ST & U 5-6%). Urban teachers were far more likely never to call parents on the phone (U 18%, R & ST 6%) (Purnell & Gotts, 1984). These findings appear to be based on the formal/informal distinction, with urban participants emphasizing formal group contacts and the others relying on personal contacts (i.e., phone).

The occasions or circumstances for teachers interacting with parents were compared. Urban teachers more often than the others interacted with parents concerning matters of student behavior and discipline (U 71.7%, ST 60.5%, R 58.7%). Further analysis revealed, however, that 71 to 72% of elementary teachers in all communities contact parents for these reasons. Thus, the difference first noted above is attributable to large differences at the secondary level (U 72%, ST 49%, R 39%). Contacts regarding attitudes and values also differentiated among the three community types (U 7.1%, ST 2.6%, R 2.0%) (Purnell & Gotts, 1984). These findings are consistent with observations earlier in this report regarding the success of rural communities in achieving conformity to community standards (Dunne, 1977; Sher, 1978). The conclusion about success may be expanded to include small towns. It may further be noted that the timing of the attainment of conformity appears to come later as urbanization increases.

School-sponsored activities were a frequent time of rural and small-town contacts with parents (R 40.7%, ST 40.5%, U 24.2%). These differences hold up at both elementary and secondary levels. Rural teachers were, further, more likely to call on parents for performing volunteer work (R 33.3%, ST 23.6%, U 22.2%). Both findings for the rural sample are congruent with Barker's (1968) analysis of "undermanned" environments. The more mixed small-town results, on the other hand, may suggest that they are less undermanned but still foster the informality notable in rural communities (Beals & Hoiyer, 1959; Wirth, 1938-39).

A final type of difference worth examination pertains to the practice of parent contacts for reporting irregularities in school performance. Differences among the three community types at the elementary level were non-significant for contacts either about student grades or absence from school. However, at the secondary level urban and small-town teachers generate even more contacts about grades, whereas rural teachers generate less contacts

regarding grades (R elementary 74.7%, R secondary 57.6%). A similar decline in the percentage of rural teachers contacting parents about absence was also observed for the secondary level (Purnell & Gotts, 1984). Our hypothesis about these types of findings has been that, because basic skills are usually well advanced by the secondary years, rural parents of adolescents are less likely to be dissatisfied with irregularities of school performance, so long as overall behavioral conformity is attained, which it is. Within such an ethos, teachers might be expected to adjust their communications to fit what parents consider important.

Parents' Views. Within West Virginia, random samples of parents of secondary school children were drawn from four counties to represent rural ($n = 184$) and urban ($n = 198$) communities. Local interviewers completed brief but wide-ranging interviews regarding their experiences and views of home-school relations. Over 90% of the respondents contacted in each locale completed the interview (Gotts & Purnell, 1984). Data analysis was conducted around three focal areas: (a) centrality of schools, (b) reliance on formal versus informal communications, and (c) orientation toward discipline and student problems. From this approach it is evident that our prior research has led us to view these as areas that might reflect some of the essential differences between rural and urban Appalachian experiences.

Regarding the centrality of schools, rural teens compared with urban participated in a greater mean number of extracurricular activities (R 1.30, U 1.11). Their types of involvement also differed. Rural teens belonged to more subject-related and social clubs (R 31.0%, U 10.6%) and were more often involved in planning and conducting social events (R 8.2%, U 2.5%). More urban teens attended extracurricular religious clubs (U 5.0%, R 0.5%). Rural and urban teens participated in athletics, band, and other groups comparably. A larger percentage of rural than urban parents attended at least some school-sponsored activities. Parent groups did not differ in attendance at athletics, musical, and dramatic events. Urban parents attended more community education (U 7.1%, R 1.1%). Rural parents tended often to be involved in quite varied school activities that could only be coded as "other" (R 33.7%, U 10.1%).

In the analysis of formal versus informal communications, rural parents had more planned contacts with school personnel (R 6.5%, U 2.0%) and many more casual meetings with them in the community (R 29.4%, U 11.1%). When contacted about a child's absence from school, rural parents more often reported being appreciative (R 57.1%, U 36.4%). Although urban parents had fewer informal contacts with school personnel, urban schools offset this disadvantage by having them attend more formal groups (e.g., Parent Advisory Councils) and by sending them more planned communications such as newsletters and special reports on academic deficiencies. Urban schools,

thus, initiated a larger mean number of formal contacts (R 4.04, U 2.64). Urban parents expressed greater satisfaction with their schools' efforts to communicate (Gotts & Purnell, in press).

In the area of student problems and discipline, urban parents, agreeing with the report of teachers (Purnell & Gotts, 1984), have more problem-oriented contacts with school personnel (U 54.1%, R 37.9%). Urban parents remarked that they felt responsible to contact the school, i.e., to find out what is happening (U 61.0%, R 36.9%), and they felt more dependent on schools to notify them of student problems (U 28.3%, R 17.9%). Urban parents wished to be notified of almost any problem the student might be having (U 59.2%, R 49.2%), whereas rural parents more often stated that they wished to be notified only if certain specific kinds of problems were to arise. Urban parents apparently wish to be notified, in part, because they believe schools are less able than themselves to deal with problems (U 16.8%, R 6.5%). Even though rural parents believe their schools have fewer discipline problems (Gallup, 1982), in the present study they often remarked spontaneously that "schools need more discipline" (R 37.0%, U 14.1%). On the other hand, rural parents were more ready to collaborate with schools in resolving their teens' problems (R 82.1%, U 66.5%) (Gotts & Purnell, 1984).

Secondary School Interventions. Based on the foregoing and other findings, AEL has identified promising home-school relations practices for the secondary level. For rural families and schools, the primary recommendations are that schools (a) have volunteers interview small random samples of parents to learn their views and desires; (b) communicate more systematically through newsletters about school events in which the whole community can participate; and (c) notify parents promptly of potential academic deficiencies, using an "academic guidance" sheet to help parents involve themselves in analyzing possible reasons and remedies (Gotts & Purnell, in press).

IMPLICATIONS AND RECOMMENDATIONS

Discussion and Implications

In a variety of senses, urban and rural home-school relations differ empirically. Several constructs appear to have heuristic value relative to this distinction. The contrasting pairs of terms are presented here with the urban-linked term appearing first: (a) formal and secondary versus informal and primary communications and group associations (Wirth, 1938-39); (b) optimally manned versus undermanned behavior settings exerting differential

environmental presses on their role occupants (Barker, 1968) to perform, respectively, either more as specialists or more as generalists; (c) the recent historical trend away from urban centralization and rural isolation (Beals & Hoijer, 1959) toward decentralization and urban cultural penetration of rural settings (Naisbitt, 1984); (d) uniform or standardized versus diverse and locally oriented (Sher, 1983); (e) the primacy of a national vision versus a local vision (Dunne, 1983); (f) structural interdependence versus psychological interdependence; (g) mobility and impersonality versus stability and intimacy of social relations (Wirth, 1938-39); (h) peripherality versus centrality of schools to community life (Dunne, 1983; Herriott, 1980); (i) predominant pursuit of personal interest and objectives versus conformity to those of the local community (Barker, 1968); and (j) remote or structural versus direct or personal social control and regulation (Wirth, 1938-39).

AEL's HOPE curriculum was effective because it was based on careful analysis of early development and learning and properly wedded to delivery via television, parents, home visitors, and an early childhood teacher, each making a particular contribution to overall results (Gotts, 1983). Effectiveness resulted from technical soundness. The HOPE program as a service delivery system succeeded for different reasons—ones that rest more on ecological soundness. HOPE (a) emphasized the availability of television and parents to most of these young children; (b) translated the curriculum into practical activities that parents could accomplish with materials commonly at hand; (c) used local paraprofessional visitors who were accepted by the families and who understood what they could and could not do; (d) encouraged parents to exercise their resourcefulness and, thus, participate in formulating the curriculum for their own child; (e) communicated its television message (i.e., via a "Miss Patty") and home instruction in a rurally congruent informal, personalized and "high touch" (Naisbitt, 1984) manner; (f) situated itself administratively in the schools—centers of community identity and pride and usually the strongest resource bases in small towns and rural areas: and (g) included young children and families of all social class levels (i.e., not poverty program) in recognition that all rural children must eventually adapt to a socially integrated common school (Gotts, 1983).

Recommendations

Cooperatives. In the face of insufficient resources, voluntary educational cooperatives and other sharing arrangements should be considered seriously. Critical media linkups can support the sharing of scarce instructional personnel, reduce their travel time, and greatly expand the utilization of their talents. Interdistrict collaborative arrangements remain a vital part of the solution for serving low-incidence populations. See Helge's (1984) comprehensive policy recommendations regarding rural special education.

Consolidation runs counter to the overall American trend toward decentralization (Naisbitt, 1984). Political action should be aimed at preventing it, except when careful local analysis shows that it should be tried (Sher, 1978). Various cooperative arrangements should first be considered as alternatives to school district reorganization and school consolidation.

Personnel. Rural teachers require specific preparation. Teacher education programs should train rural educators to be generalists. They should be trained to be self-sufficient and resourceful, and they should be well grounded in rural school-community relations (Massey & Crosby, 1983). These same authors offer detailed suggestions regarding the preceding recommendations. Preparation of school administrators and pupil personnel services workers should likewise be guided by these criteria. Abt et al. (1977) have developed some useful hypotheses about ways to influence the postgraduation activities of rural students. Personnel should be trained to explore these further.

Curriculum. A more distinctly rural curriculum is needed, based in part on use of community resource people and partly on original development work. Although much rural school improvement must be a local matter. (Dunne, 1977), some materials can undoubtedly be developed for statewide use through collaborative activities by local and state education agency personnel plus university faculty. Independent study projects can be used to broaden the curriculum (Sher, 1983).

Community Involvement. Citizens of rural communities become involved with schools as needs for their assistance are impressed upon them. Local effort and contributions "in kind" are the heritage of rural schools. Newsletters can be the most effective single means of reaching parent and other citizens in rural communities in order to inform them of the school's program, activities, and needs (Gotts & Purnell, in press).

Achieving Equity. Sher (1978, 1983) presents a reasoned plan and strategy for increasing education equity for rural children. Basically he advocates reduced reliance on the local property tax and increased state categorical assistance (e.g., for the heavy transportation costs of rural schools). Help may be on the way from the federal government to rectify inequalities noted in the past (CSA, 1978; U.S. Senate, 1975). A new federal policy calls for rural education to receive an equitable share of "information, service, assistance and funds" (Worthington, 1983) in the future.

REFERENCES

- Abt, W. P., Bock, G., English, P., & Marx, T. J. (1977). *One year out: Reports of rural high school graduates*. Cambridge, MA: Abt Associates.
- American Association of School Administrators. (1982). *Ensuring excellence in rural education*. Arlington, VA: Author.

- Appalachian Regional Commission. (1979). *Appalachia—A reference book* (2nd ed.). Washington, DC: Author.
- Appalachian Regional Commission. (1981). *Appalachia—A reference book* (Suppl. to 2nd ed.). Washington, DC: Author.
- Barker, R. G. (1968). *Ecological psychology. Concepts and methods for studying the environment of human behavior*. Stanford, CA: Stanford University Press.
- Barker, R. G., & Gump, P. V. (1964). *Big school, small school*. Stanford, CA: Stanford University Press.
- Beals, R. L., & Hoiijer, H. (1959). *An introduction to anthropology* (2nd ed.). New York: Macmillan.
- Benson, C. J. (1961). *The economics of public education*. Boston: Houghton Mifflin.
- Bertram, C. L. (1975). *Social and educational characteristics of the families of rural Appalachian preschool children* (Technical Report No. 57). Charleston, WV: Appalachia Educational Laboratory. (ERIC Document Reproduction Service No. 127 028)
- Childs, A. W., & Melton, G. B. (Eds.). (1983). *Rural psychology*. New York: Plenum Press.
- Conant, J. B. (1959). *The American high school today*. New York: McGraw-Hill.
- Covert, T. (1930). *Rural school consolidation. A decade of school consolidation with detailed information from 105 consolidated schools* (Pamphlet No. 6). Washington, DC: U.S. Government Printing Office. (ERIC Document Reproduction Service No. ED 141 055)
- CSR. (1978). *Appalachian children and their families: A statistical profile*. Washington, DC: Appalachian Regional Commission.
- Douvan, E., & Adelson, J. (1966). *The adolescent experience*. New York: Wiley.
- Dunne, F. (1977). Choosing smallness: An examination of the small school experience in rural America. In J. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 81-124). Boulder, CO: Westview Press.
- Dunne, F. (1983). Good government vs. self-government: Educational control in rural America. *Phi Delta Kappan*, 65, 252-256.
- Flax, J. W., Wagenfeld, M. O., Ivens, R. E., & Weiss, R. J. (1979). *Mental health and rural America: An overview and annotated bibliography*. Rockville, MD: National Institute of Mental Health.
- Flora, J. F. (1976). Equity in financing primary and secondary education. *American Journal of Economics and Sociology*, 35, 175-189.
- Fratoe, F. (1978). *Rural education and rural labor force in the seventies*. (Rural Development Research Report 5.). Washington, DC: USDA Economics, Statistics, and Cooperative Service.
- Gallup, G. H. (1977). Ninth annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 59, 33-48.
- Gallup, G. H. (1979). The eleventh annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta kappan*, 61, 33-45.
- Gallup, G. H. (1980). The 12th annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 62, 33-48.
- Gallup, G. H. (1981). The 13th annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 63, 33-47.
- Gallup, G. H. (1982). The 14th annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 64, 37-50.
- Gallup, G. H. (1983). The 15th annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 65, 33-47.
- Gotts, E. E. (1977). *The home visitor's kit. Training and practitioner materials for paraprofessionals in family settings*. New York: Human Sciences Press.
- Gotts, E. E. (1983). Home-based early intervention. In A. W. Childs & G. B. Melton (Eds.), *Rural psychology* (pp. 337-358). New York: Plenum Press.
- Gotts, E. E., & Purnell, R. F. (1984, June). *Appalachian parents' views of home-school relations at the secondary level*. Paper presented at the 5th Annual Conference on Appalachian Children and Families, Morehead, KY.
- Gotts, E. E., & Purnell, R. F. (1986). Communications: Key to school-home relations. In R. J. Griffore & R. P. Boger (Eds.), *Child rearing in the home and school* (pp. 157-200). New York: Plenum Press.

- Helge, D. (1984). The state of the art of rural special education. *Exceptional Children*, 50, 294-305.
- Herjanic, B. M. (1972). A rural versus urban children's mental health clinic population. *Journal of the American Academy of Child Psychiatry*, 11, 583-594.
- Herriott, R. E. (1980). *Federal initiatives and rural school improvement. Findings from the experimental schools program*. Cambridge, MA: Abt Associates.
- Hersen, M., Kardin, A. E., & Bellack, A. S. (Eds.). (1983). *The clinical psychology handbook*. New York: Pergamon.
- Hollister, W. G., Bentz, W. D., Miller, F. T., Edgerton, J. W., & Aponte, J. F. (1973). *Experiences in rural mental health. VI: Programming school mental health*. Chapel Hill: University of North Carolina School of Medicine.
- Hooper, F. H., & Marshall, W. H. (1968). *The initial phase of a preschool curriculum development project: Final report*. Charleston, WV: Appalachian Educational Laboratory. (ERIC Document Reproduction Service No. ED 027 071)
- Kaufman, A. S., & Doppelt, J. E. (1976). Analysis of WISC-R standardization data in terms of the stratification variables. *Child Development*, 47, 165-171.
- Massey, S., & Corsby, J. (1983). Special problems, special opportunities: Preparing teachers for rural schools. *Phi Delta Kappan*, 65, 265-269.
- Naisbitt, J. (1984). *Megatrends. Ten new directions transforming our lives*. New York: Warner Books.
- Purnell, R. F., & Gotts, E. E. (1984). *Teacher participation in home-school relations in rural, small-town, and urban communities*. Manuscript submitted for publication.
- Reynolds, C. R., & Gutkin, T. B. (Eds.). (1982). *The handbook of school psychology*. New York: Wiley.
- Rosenfeld, S. A., & Sher, J. P. (1977). The urbanization of rural schools, 1840-1970. In J. P. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 11-42). Boulder, CO: Westview Press.
- Ross, P. J., & Green, B. L. (1979). *Impacts of the rural turn-around on rural education*. Washington, DC: USDA. (ERIC Document Reproduction Service No. ED 168 759)
- Schneider, B. L. (1980). *America's small schools*. Evanston, IL: Northwestern University. (ERIC Document Reproduction Service No. ED 187 508)
- Sher, J. P. (1977). Pluralism in the countryside: A brief profile of rural America and its schools. In J. P. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 1-8). Boulder, CO: Westview Press.
- Sher, J. P. (1978). *Revitalizing rural education. A legislator's handbook*. Washington, DC: National Conference of State Legislatures.
- Sher, J. P. (1983). Education's ugly duckling: Rural schools in urban nations. *Phi Delta Kappan*, 1983, 65, 257-262.
- Sher, J. P., & Tompkins, R. B. (1977). Economy, efficiency, and equality: The myths of rural school and district consolidation. In J. P. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 43-77). Boulder, CO: Westview Press.
- Shively, J. E., Bertram, C. L., & Hines, B. W. (Eds.). (1975). *Four field studies of Appalachian parents of young children*. Charleston, WV: Appalachia Educational Laboratory. (ERIC Document Reproduction Service No. ED 127 027)
- Snow, M. (1981). *The regional parenting surveys: Base sample survey* (Technical report). Charleston, WV: Appalachia Educational Laboratory. (ERIC Document Reproduction Service No. ED 221 305)
- Snow, M. B. (1982). *Characteristics of families with special needs in relation to schools* (Technical report). Charleston, WV: Appalachia Educational Laboratory. (ERIC Document Reproduction Service No. ED 221 813)
- Stutz, R. C. (1974). The development of rural education: The state of the art. In O. K. O'Fallon et al., *Proceedings: Small schools invitational conference* (pp. 67-76). Montgomery Bell State Park, TN. (ERIC Document Reproduction Service No. ED 087 595)
- Tamblyn, L. R. (1973). *Inequality. A portrait of rural America*. Washington, DC: Rural Education Association.
- U.S. Senate, Subcommittee on Rural Development. (1975). *HEW programs for rural America*. Washington, DC: U.S. Government Printing Office.

- Weaver, T. (1977). Class conflict in rural education: A case study of Preston County, West Virginia. In J. P. Sher (Ed.), *Education in rural America: A reassessment of conventional wisdom* (pp. 159-203). Boulder, CO: Westview Press.
- Wilson, A. P. (1982). *The principalship in rural America*. Las Cruces: New Mexico State University, Clearinghouse on Rural Education and Small Schools.
- Wirth, L. (1938-39). Urbanism as a way of life. *American Journal of Sociology*, 44, 1-24.
- Worthington, R. M. (1983). *A rural education policy for the 80's*. Address before 75th Annual Conference of the Rural Education Association. Manhattan, KS. Available from U.S. Department of Education.
- Wynne, E. A. (1978). Behind the discipline problem: Youth suicide as a measure of alienation. *Phi Delta Kappan*, 59, 307-315.
- Zuiches, J. L., & Brown, D. L. (1978). The changing character of the nonmetropolitan population, 1950-1975. In T. R. Ford (Ed.), *Rural USA: Persistence and change* (pp. 55-65). Ames: Iowa State University Press.