

DOCUMENT RESUME

ED 281 909

UD 025 447

**AUTHOR** Benally, Elaine Roanhorse; And Others  
**TITLE** Issues in American Indian Education, Mexican American Education, Migrant Education, Outdoor Education, Rural Education, and Small Schools.  
**INSTITUTION** ERIC Clearinghouse on Rural Education and Small Schools, Las Cruces, N. Mex.  
**SPONS AGENCY** Office of Educational Research and Improvement (ED), Washington, DC.  
**PUB DATE** Jan 87  
**CONTRACT** NIE-P-85-0008  
**NOTE** 21p.; In: Trends and Issues in Education, 1986 (see UD 025 435).  
**PUB TYPE** Information Analyses - ERIC Information Analysis Products (071)

**EDRS PRICE** MF01/PC01 Plus Postage.  
**DESCRIPTORS** Academic Achievement; \*American Indian Education; Child Rearing; Compensatory Education; Cultural Influences; Disabilities; Dropout Prevention; Educational Improvement; Educational Trends; Elementary Secondary Education; \*Mexican American Education; \*Migrant Education; Nontraditional Education; \*Outdoor Education; Reservation American Indians; \*Rural Education  
**IDENTIFIERS** Educational Issues

**ABSTRACT**

This report discusses the following current issues and trends in American Indian, Mexican American, migrant, outdoor, rural, and small school education: (1) motivating American Indian students to higher achievement in mathematics and science; (2) creating culturally relevant parent education/skills development programs and materials for American Indian students; (3) reversing an education condition among Hispanic Americans and American Indians that is characterized by below-grade-level enrollment, high dropout rates, high rates of illiteracy, low number of school years completed, and minimal enrollment in institutions of higher education; (4) meeting the health needs of migrant families and reducing the dropout rate of migrant secondary school students; (5) designing appropriate programs of outdoor education for handicapped students; and (6) increasing awareness, interest, and research in rural education. References are included. (PS)

\*\*\*\*\*  
\* Reproductions supplied by EDRS are the best that can be made \*  
\* from the original document. \*  
\*\*\*\*\*

ED281909

Issues in American Indian Education, Mexican American  
Education, Migrant Education, Outdoor Education, Rural  
Education, and Small Schools

By  
Elaine Roanhorse Benally, Jack T. Cole, and  
Manuela Quezada-Aragon

Chapter 11 of  
Trends and Issues in Education, 1986

Erwin Flaxman  
General Editor

Prepared by  
Council of ERIC Directors  
Educational Resources Information Center (ERIC)  
Office of Educational Research and Improvement  
U. S. Department of Education  
Washington, D. C. 20208

January 1987

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as  
received from the person or organization  
originating it.

Minor changes have been made to improve  
reproduction quality.

• Points of view or opinions stated in this docu-  
ment do not necessarily represent official  
OERI position or policy.

UD0025447

ISSUES IN AMERICAN INDIAN EDUCATION, MEXICAN AMERICAN EDUCATION,  
MIGRANT EDUCATION, OUTDOOR EDUCATION, RURAL EDUCATION,  
AND SMALL SCHOOLS

Elaine Roanhorse Benally, Jack T. Cole, and Manuela Quezada-Aragon  
ERIC Clearinghouse on Rural Education and Small Schools

This chapter contributed by the ERIC Clearinghouse on Rural Education and Small Schools will discuss issues related to its six scope areas in the following order: American Indian education, Mexican American education, migrant education, outdoor education, rural education, and small schools.

American Indian Education

According to the 1980 census, 1,418,195 individuals reported their race as American Indian, Eskimo, or Aleut. This represents a 72% increase over the 1971 total of 827,268 (Paisano, 1984). American Indians are one of the fastest-growing and youngest ethnic groups in the country with the median age of 18 (American Indians--U.S., 1984). In 1980, 394,708 Indian children were enrolled in elementary and secondary schools and 83,903 were attending institutions of higher education (Plisko, 1984). American Indians are educated in public, parochial, private, and Bureau of Indian Affairs (BIA) schools, as well as off-the-reservation, in rural areas, and in urban areas.

The Indian peoples' greatest asset is their young. They are becoming increasingly more willing to involve themselves in their own destiny and to help shape the type of education that they receive. They are becoming better educated and more aware of the choices open to them. They are qualifying themselves for employment in a broader range of fields. To meet the challenge of education for their children, Indian people have begun to take responsibility for the quality of education that their children receive (Goodeagle, 1984).

Achievement of American Indian Students in Math and Science

There is a growing interest in motivating American Indian and Alaska Native students to higher achievement in math and science. This in itself is a great challenge for Indian youth and their educators. A primary reason is that American Indian youth have a much higher high school noncompletion rate than whites and leave school earlier. The high school dropout rate of American Indians is similar to that of Hispanics; 40% aged 18 and 19 are dropouts with higher percentages in some states such as New Mexico. In the High School and Beyond longitudinal study of sophomores in 1980, about 14% of one-half million students of all racial/ethnic groups dropped out of school during a two-year span from spring, 1980 to spring, 1982. Of this 14%, American Indians and Alaska Natives had the highest dropout rate, 29% greater than any other racial/ethnic group (Peng, 1983). Research data reveal that the difference between academic performance of American Indians

and that of white students widens with each succeeding year, especially between grades 10 and 12. The pattern is most pronounced in mathematics where American Indians are 2.4 years behind white students in the sixth grade and 1.7 years behind the national norm as a whole, and this trend increases through the grades. For example, at grade 12 Indian students are 4 years behind white students and 3 years behind the national norm (Southwest Indian Report, 1973).

Of all minority groups in the United States, American Indians and Alaska Natives are the most poorly represented in the natural sciences, the health sciences, and mathematics, yet these areas are critical to the growth and prosperity of the Indian people (Green, 1978).

Often American Indian students do not recognize the connection between learning mathematics and science concepts today and helping their people in the future. Yet, tribal groups are sorely in need of their own doctors, scientists, computer specialists, and other highly skilled technicians. Many Indian students drop math and science courses that they need to qualify for certain jobs and careers, courses they need for basic skills, and courses that would lead to a greater level of academic achievement. According to Green (1978), many American Indians rarely consider careers in scientific and technical fields because of a perception of themselves as hopelessly incompetent in the mathematical and scientific skills needed for a particular occupation.

This may be a result of school counselors failing to encourage American Indian, as well as black and Hispanic, students to enroll in higher level math and science courses and a failure to encourage these students to consider careers in math- and science-related fields (State-of-the-art report on mathematics achievement, 1980).

Another contributing factor for low achievement in math suggested by Leap (1982) and Moore (1981) is the incompatibility between mathematical concepts and the American Indian languages. They hypothesize that Indian languages, such as Navajo and Zuni, have styles of thought and communication which are not compatible with the understanding of mathematical concepts and problem-solving.

Bradley (1982) suggests a culture-based approach to teaching mathematics to Indian students. She suggests that three domains must be considered: the cognitive domain, the affective domain, and the social domain. In the cognitive domain Indian students must be encouraged to reconstruct mathematical ideas, create problems, test ideas, complete classwork, and seek to learn more mathematics on their own. Indian students need to develop spatial relationships, which can be accomplished through creative uses of hands-on materials, as well as calculators and computers. In the affective domain Indian students need support and counseling from Indian community members and mathematics-related professionals. In the social domain Indian students may need briefing on mathematical language, test-taking strategies, and/or appropriate problem-solving techniques prior to taking higher math courses. Bradley (1982) also strongly suggests that culture-based

mathematics should not push aside the main focus of learning mathematics, but would be most effective if Indian community members took primary responsibility for developing culture-based mathematics teachers in the schools.

Several universities have implemented special summer programs for American Indian youths interested in mathematics and science, who have talents in those subject areas and need encouragement to continue their studies. Examples of such summer programs are Health Careers Orientation Program for Minorities sponsored by Fort Lewis College, Durango, Colorado; Pre-College Career Seminar sponsored by Indian Resource Development, New Mexico State University, Las Cruces, New Mexico; and a Summer Institute for high school graduates, sponsored by the Council of Energy Resources Tribes (CERT) and the Colorado College TRIBES Program, Colorado Springs, Colorado.

### American Indian Child Welfare and Education

In the past three years, the number of family and child welfare cases being handled by Indian courts has increased greatly. Judges have been forced to separate children and families because no dispositional alternatives exist. The separation rate of American Indian families has been, and continues to be, disproportionately high in relation to the rest of the population. In 1969 and 1974 surveys showed that 23 to 25% of all Indian children were separated from their families and placed in foster homes, adoptive homes, or institutions (Process for Developing, 1983). More recent figures tend to indicate that this disproportionately high separation rate continues. For example, the number of family breakups on one western reservation in 1981 was estimated at 50 and 75% (Process for Developing, 1983). Similarly, an October, 1980, article by the Director of the National Indian Youth Council states that if the boarding school population is added in, the result is that approximately 50% of all Indian children are not with their natural parents (Wilkinson, 1980).

The question of why American Indian families suffer such a high rate of separation is repeatedly asked. Tribal judges tend to agree that a contributing cause for great numbers of Indian children-neglect cases is that many American Indian parents do not understand the role and responsibilities of parenting (Process for Developing, 1983).

Child-rearing practices among Indian people have been closely related to the extended family concept, and in that respect have depended on more than just the parents of the children. As the Indian extended family becomes more and more a thing of the past, Indian parents find it more difficult to be "good parents" (Indian Culture, 1980).

The factor of boarding schools in the lives of most Indians has also been disruptive in the sense that so many of the Indian parents of today were raised in highly authoritarian boarding schools, apart from their own parents, and thus had few good parenting models (Process for Developing, 1983). The national increase in teenage pregnancy, the growing numbers of single parents, and the rising divorce rates have also affected Indians, just as they have other segments of society. Increased drug abuse and alcoholism have also become additional factors in poor parenting practices.

The following is a list of specific factors involved in Indian child abuse and neglect among young Indian parents in the urban setting, culled from a report by the Oakland Urban Indian Center (Indian Culture, 1980):

- o a special form of immaturity and associated dependency that has been precipitated from the boarding school era and is mitigated by rising numbers of teenage pregnancies
- o a tragically low self-esteem and sense of incompetence resulting from a feeling of racial inferiority imposed by the dominant society over the past centuries
- o difficulty in seeking pleasure and finding satisfaction in the adult world
- o difficulty in adjusting to the demands of the dominant society which is seen as being both exclusive and requiring assimilation
- o feeling of loss of control and power (the frustration that comes from a feeling of helplessness up against a greater force that appears to be the enemy)
- o social isolation, from the extended family or any other support community to assist in child-rearing
- o lack of parenting skills. (misperception of the infant's abilities, lack of empathy for the infant's needs, fear of spoiling the child, strong belief in the values of corporal punishment, lack of access to resources, programs and services)
- o difficulty in coming to accept responsibility for their own lives
- o overcoming external and internal limitations to their ability to provide an adequate living

In an attempt to promote Indian child welfare, the National American Indian Court Judges Association was awarded a grant of \$101,970 in 1982 to develop a model process which social service providers could use to develop culturally relevant parent education/skills development programs and materials. Four reservations served as pilot programs--Zuni Pueblo in New Mexico, Fort Belknap Reservation in Montana, Cherokee Reservation in North Carolina, and Ponca Reservation in Oklahoma (Process for Developing, 1983).

Since the initiation of these four programs, other tribes have begun parent education programs in their communities. Another example of promoting parenting programs is the Ford Foundation's program, Teen Father Collaboration, which is an attempt to extend to teenage fathers the counseling and other social services often only available to teenage mothers (Rose, 1985).

As the children of Indian parents enter school, parental involvement becomes an issue. The quality of the relationship between Indian parents

and their child's teacher is important since this will be reflected in the child's attitude toward school and behavior in school.

The lack of involvement of these parents is often misinterpreted to mean disinterest in the education of their children. A more accurate assessment of their behavior is that they lack experience in interacting with school personnel; feel they do not have the expertise warranted to speak about the curriculum or counseling needs of their children; and are doubtful about how their input, once given, will be received or implemented. Not wishing to feel intimidated or appear foolish, they remain inactive but not disinterested (Indian Culture, 1980).

Like other parents, American Indians and Alaska Natives need to know that their involvement in the education of their child is desired, needed, and valued.

### Mexican American Education

Hispanic Americans are America's most emergent minority. According to the 1980 census, there are approximately 14.6 million Hispanics in the United States. Although united by a Spanish language background, the Hispanic population is diverse and is composed of three major subgroups, with Mexican Americans being the largest group. The 1980 census indicated that there are about 9 million Mexican Americans residing in the United States, representing a 93% increase over the 1970 census data. The majority of Mexican Americans reside in the six states of California, Texas, Colorado, New Mexico, Arizona, and Illinois, with by far the largest concentrations in California and Texas. The Mexican American population is young, having a median age of about 22 years. About one person in nine is a child under five years of age. Mexican Americans have the country's highest birth rate. In an era of declining public school enrollments, the Mexican American proportion of the public school population is growing. As a rapidly growing and young population, Mexican Americans are faced with numerous educational challenges.

### Academic Achievement

The educational condition of Mexican Americans has been characterized by below-grade-level enrollment, high dropout rates, high rates of illiteracy, and a low number of school years completed. The median number of school years completed by Mexican Americans aged 25 years and older is 10.3 as compared to 12.5 for non-Hispanics. Although conditions vary, Hispanics often attend overcrowded and poorly equipped schools which have lower per-pupil budgets than other schools in their areas. As a result of housing patterns and the growth of the Hispanic youth population, over two-thirds of all Hispanics attend schools where over 50% of the student population is minority. According to Brown, Rosen, Hill, and Olivas (1980), Hispanics are often over-age for their grade levels due to language problems experienced in earlier years. As a result, almost 52% of all Hispanics enter high school over-age and many have poor grades. Even though Mexican American

students enter high school with as high aspirations as any other group, the courses they take are not consistent with the high aspirations they report when they enter school. Many Hispanic students are not in strong academic programs while in high school. Only 26.9% of these students are in strong academic programs, as compared to 39.8% of the non-Hispanic students. The majority of these students are clustered in general (41.6%) or vocational education (31.5%) programs. Contributing to the high dropout rate of Hispanic students is the fact that some of these students are attracted to the world of work. In 1980, Hispanic male students were more likely to hold full-time jobs than were Anglo or black male students. They averaged more hours of work per week while attending school. According to the National Commission on Secondary Education for Hispanics, of the Hispanic males in the 1980 high school sophomore class who left school before graduation, more than 25% left to accept an offer of work (Make Something Happen, 1984). Many of these students left school in order to contribute to the support of their families. Such factors as self-concept, attitudes toward school, motivation to achieve, language deficiency, bilingualism, cognitive development, and teacher attitudes have also been identified as determinants of low academic achievement of Mexican American students.

Efforts have been made to provide educational programs which would be compatible with the special needs of these students. Bilingual, multicultural, and compensatory education programs have been provided throughout the school process of some of these students. Interventions have been implemented at the level where attrition is presumed to occur--in high school. For example, work-study and extended day programs at the high school level have been geared toward helping poor youth to stay in school. Alternative high school programs for "potential" dropouts have been implemented to address these "at risk" students' academic underachievement and their mismatch with the regular high school environment.

### Access to Higher Education

Although Mexican Americans comprise the largest subgroup of Hispanics, their enrollment in institutions of higher education has remained minimal. In 1980, out of approximately 9.3 million undergraduate students enrolled in institutions of higher education in the 50 states and the District of Columbia, about 4.2% were Hispanic, 10% were black, 2.3% were Asians, and 0.7% were Native Americans. Data from the Center for Statistics (1986) indicate that during the 1984-85 school year higher education enrollment included 80.8% white, 8.5% black, 4.2% Hispanic, 3.1% Asian/Pacific Islander, 0.7% American Indian/Alaska Native, and 2.8% nonresident alien students. While the percentage of Mexican Americans taking Scholastic Aptitude Tests (SATs) has increased in recent years, only 7% of all Mexican American 18-year-olds took the SATs in 1983. In 1985, Mexican Americans showed improvements on the SAT in both math and verbal scores.

The majority of Hispanics attend community colleges where the chance of transferring to a four-year college is poor and the completion rate is low. Castillo (1984) notes that attrition is the major problem that contributes to the underrepresentation of Hispanics. Castillo further cites that



numerous studies conducted on the transfer function have isolated some specific problems that contribute to the diminishing transfer rate: (a) the poor communication of transfer requirements to students; (b) the lack of information systems for counselors who advise transfer students; (c) the complex admissions and registration procedures to which students are subjected; and (d) the lack of financial assistance--the most frequently cited reason for dropping out. A prevailing trend occurring in community colleges is that their original role of preparing students for transfer to four-year institutions has shifted from transfer to occupational education and technology (Castillo, 1984). Of the Mexican Americans who go on to graduate or professional schools, over half drop out before completing their degrees. Utilizing data from a National Center for Education Statistics enrollment survey, Arce (1982) showed Hispanic underrepresentation is especially severe in the universities, both public and private, in the technical and scientific fields, and in courses leading to the professions of dentistry, medicine, business, and law.

Underrepresentation of Mexican American students in institutions of higher education can be attributed to several factors: low college entrance examination scores, poor writing and speaking skills, content deficiencies, weak study habits, poor self-images, diffused goals, and unsuccessful learning experiences. Although academic preparation lays the foundation for students pursuing a higher education, the process for admission to an institution of higher education includes a series of activities and steps that requires skill and understanding to negotiate. Understanding the process and learning how to manage it are necessary for any college-bound student, but are especially critical for Mexican American students.

However, some intervention strategies aimed at alleviating the underrepresentation of trained Mexican Americans have been established at the secondary and postsecondary levels. For example, pre-collegiate counseling for Hispanics; cooperative projects between high schools and colleges, such as the Pre-Freshman Engineering Program held at the University of Texas at San Antonio each summer and the High Technology High School in San Antonio, Texas; workshops such as the Math Anxiety Weekend Workshop Training held at the Southwestern College in Chula Vista, California; the development of career education curriculum; and various remedial programs at some colleges and universities.

#### Migrant Education

According to federal legislation, a "migrant" child is "a child who has moved within the past 12 months from one school district to another--or, in a state that is comprised of a single school district, has moved from one school administrative area to another--to enable the child, the child's guardian, or a member of the child's immediate family to obtain temporary or seasonal employment in an agricultural or fishing activity" (Federal Register, 1978). "Agricultural activity" refers to any activity directly related to: (a) the production or processing of crops, dairy products, poultry, or livestock for initial commercial sale or as a principal means

of personal subsistence; (b) the cultivation or harvesting of trees; or (c) fish farms. "Fishing activity" means any activity directly related to the catching or processing of fish or shellfish for initial commercial sale or as a principal means of personal subsistence.

A migrant child can be classified as: (a) currently interstate agricultural; (b) intrastate migratory agricultural; (c) former migratory agricultural; (d) currently interstate migratory fisher; (e) intrastate migratory fisher; or (f) former migratory fisher. Migrant students identified as "currently interstate agricultural or migratory fisher" are those students who have moved with a parent or guardian within the past 12 months across state boundaries to enable the parent, guardian, or another member of the child's immediate family to obtain temporary or seasonal employment in an agricultural or fishing activity. Migrant students classified as "intrastate migratory agricultural or fisher" are those students who have moved with a parent or guardian within the past 12 months across school district boundaries within the state to enable the parent, guardian, or another member of the child's immediate family to obtain temporary or seasonal employment in an agricultural or fishing activity. Those migrant students labeled "former migratory agricultural or fisher" are those students who have been interstate or intrastate migrants as defined above, but who have ceased to migrate within the past five years and now reside in an area in which a migrant education project is available and have parental approval for enrollment in such a project.

The identified migrant student population has grown throughout the United States in the last 20 years. When the Migrant Education Program was first begun in 1967, there were 80,000 migrant students identified. Today there are approximately 750,000 identified migrant students in 49 states in the United States, the District of Columbia, and Puerto Rico. These migrant students are not typical students since they are not permanent or semi-permanent residents of any school district. As a result of their high transient rate, these students often have serious educational deficiencies, lack continuity in their educational experience, and frequently fail to complete high school.

#### Retaining Migrant Secondary School Students

Migrant families are unique for, by definition, they live their lives on the move. Because of this, the need for migrant children and youth to get a consistent education often takes second place to the need to make a living. Additionally, these students are faced with the problems of adapting to new schools, classmates, and teachers several times a year. Enrollment procedures are often complex, involving the transfer of partial credits due to incomplete course work.

Measuring dropout rates for migrant students is difficult since a "migrant student" enrolled in the Migrant Student Record Transfer System (MSRTS) may not continuously have migrant status. Students cease to be "migrant" if their migrant status expires, thus making longitudinal surveys difficult. In addition, their mobility makes totally accurate counts of migrant students almost impossible.

According to 1980-81 MSRTS enrollment statistics, five times as many migrant students are enrolled in the second grade than in the 12th grade nationwide. Migrant youth have the lowest graduation rate of any student population group identified in the public school system. The graduation rate for migrant students is estimated to be between 10% to 20%. The average dropout rate for the three states with the highest migrant populations (California, Florida, and Texas) exceeds 32.5%. Gilchrist (1983, p. 2) concludes that:

Although almost three times more migrant students as four years ago are not staying in school until graduation, the current 12th grade class is still only one-quarter the size of the 8th grade class. More than 20% of the students drop out of school each year. Most leave in the 9th and 10th grades.

There is no doubt that migrant students are dropping out, and that even those who do graduate are not continuing their education. Often the conditions in the secondary school system, while adequate for resident students, become detrimental to the success of migrant students. Among the stumbling blocks are: appropriate age/grade placement, credit accrual, required course work, and state minimum competency tests.

Gilchrist (1983) notes that some of the characteristics of migrant students who drop out include: a history of transiency; limited fluency in English; homes where survival is often the primary concern; lack of self-assurance, support, and clarity about goals; older age level than their peers. Nelken and Gallo (1978) isolated financial pressures, poor attendance, lack of family support (as perceived by the students), and low numbers of siblings who had completed high school as factors distinguishing dropouts from graduates. Repeated experiences of frustration, failure, and a lack of acceptance due to mobility have produced low self-concept, feelings of isolation, and reduced motivation.

Many migrant programs throughout the country have developed various solutions to meet the needs of secondary school migrant youth. Recently several states have increased funding for migrant programs at the secondary level. This increased state support has assisted in the promotion and acceptance of migrant education programs by individual school districts. Many regional and statewide programs have also improved their services to high school students by initiating and supporting secondary migrant education study committees; increasing counseling staff at the secondary level; and providing tutorial assistance, summer programs, and adult education evening programs. Among the programs which have been developed to increase the number of migrant students who will eventually graduate from high school are the Portable Assisted Study Sequence (PASS) program, the High School Equivalency Program, the General Education Diploma classes, the Secondary Credit Exchange (SCE) Program, and the Summer Project Assignments. PASS offers prepared curriculum materials for independent correspondence study. SCE provides credit accrual opportunities for migrant students. In the Summer Project Assignments program, Texas educators travel to receiving states to help organize programs, enroll students, monitor course work,

and provide continuity in the areas of personal and family support. Advocacy activities at the national level by the National Association of State Directors of Migrant Education have also served to increase public awareness of migrant programs for secondary school migrant students.

### Health Needs of Migrant Families

One of the major continuing concerns of migrant educators is the health of migrant workers and their families. The lifestyle of migrants is characterized by frequent moves, substandard housing, inadequate plumbing, and limited access to quality medical and dental services. Migrant workers toil in all kinds of weather and environmental conditions and are exposed to pesticides and other chemicals used to treat agricultural crops. Chronic medical problems associated with agricultural chemicals and unsatisfactory environmental conditions are common among some migrant families. Frequent changes of residence deprive migrant children of health care and follow-up. As a result, the health problems may lead to difficulties in school.

In addition to the typical diseases and health problems of childhood, migrant children confront numerous health problems and risks associated with their migratory lifestyle and the environmental hazards associated with agricultural work. These children also confront numerous social, cultural, and language barriers which often preclude their ability to access regular, comprehensive health care. Maximum educational achievement may be hindered by undiagnosed and untreated health problems. For instance, the young migrant child with undiagnosed hearing or vision problems will obviously experience learning difficulties, regardless of the quality of the educational program. Other less obvious but equally significant undetected health conditions such as anemia, respiratory infections, and dental disease also contribute to listlessness and distraction due to pain, and may inhibit the education process. The most common problems migrants experience fall within respiratory and digestive system ailments, accidents, skin diseases, infectious diseases, parasitic diseases, nutritional and metabolic problems, nervous system and sense organ problems, and circulatory system problems.

The importance of good health in helping migrant students to achieve their maximum educational potential has been recognized and addressed at both the federal and state levels. Federal legislation defines the eligibility of the migrant child and allows for the provision of supplemental health and support services to eligible migrant children. The Federal Register of April 3, 1980, Section 116d.51, states that the state educational agency may provide health, nutritional, social, or other supporting services with migrant education funds if these services are necessary to enable eligible migrant children to participate effectively in instructional services.

However, the provision of such services is often hindered by various problems, such as finding access to low-cost quality medical care, getting health education information in the appropriate language, and keeping accurate medical records after health care is given. Migrant students have also been prevented from obtaining necessary health services by such factors

as excessive mobility of their families; lack of bilingual health care personnel; limited knowledge of available health services; residency requirements for eligibility to receive health services; lack of health insurance for farmworker families; high cost of medical/dental care; residence in medically under-served areas; and lack of awareness of preventative health measures. Slesinger (1979) ranked the most common barriers migrants experience in seeking health care as: the time it takes to get an appointment, distance to the facility, language barriers, the times the facilities are open, the cost of services, loss of income, feelings of being uncomfortable with the doctor, lack of knowledge of whom to go to, and fear of what the doctor might find.

In an attempt to respond to this problem, the Migrant Education Program provides physical and dental screenings for migrant students enrolled in a migrant program. In addition to the child's educational history, the Migrant Student Record Transfer System (MSRTS) provides health profiles of these students. Upon enrollment in a new school, the child's health data, e.g., physical exam results, inoculations, dental services, and any other health information unique to the child, are provided. This collaboration between the health and education entities removes the possibility of providing unneeded health services to the migrant child while it brings to the attention of school personnel any critical problems the child has that may affect his/her learning capabilities. Project HAPPIER (Health Awareness Patterns Preventing Illnesses and Encouraging Responsibility), funded through the U. S. Department of Education discretionary funds, attempts to coordinate intra/interstate and intra/interagency efforts to disseminate curriculum units on health promotion/disease prevention for migrant children. Special community health centers have also been established for migrant families in some parts of the country. An interagency agreement between the Office of Migrant Education and the Environmental Protection Agency has been made to offer information and assistance to migrant health centers regarding suspected or confirmed pesticide poisonings. The National Migrant Referral Project has developed referral systems to assist migrant health centers and other health providers in delivering continuous health services to this mobile population. These systems enable the exchange of medical information between home-base and receiving-base migrant health centers.

#### Outdoor Education

Outdoor education is education in, about, and for the out-of-doors. This definition tells where the learning takes place, the topic to be taught, and the purpose of the activity.

"In" implies that outdoor education can occur in any outdoor setting, from a school yard in an industrial neighborhood to a remote wilderness setting. It can occur in swamps, meadows, forests, shores, lakes, prairies, deserts, estuaries, and all other biomes.

"About" indicates that the topic is the outdoors itself and the cultural aspects related to the natural environment. One may learn about mathematics, biology, geology, communications, history, political science, art, physical skills, or endurance through the context of the outdoors.

The subject matter of outdoor education is a holistic combination of the interrelationships of all nature and human beings, attitudes for caring for the universe, and skills for utilizing natural resources for human survival and for leisure pursuits.

"For" would imply that the purpose of outdoor education is related to implementing cognitive, psycho-motor, and affective domains of learning for the sake of the ecosystem itself. It means understanding, using, and appreciating the natural resources for their perpetuation.

### Outdoor Education for Special Populations

A more specialized focus of outdoor education is as a means of utilizing the uniqueness of the environment to address the specific educational needs of certain special populations--the handicapped, gifted, juvenile offenders, and ethnic minority groups. This section will examine outdoor education and the handicapped student.

Outdoor education programming for special populations had its real start in the 1950s and has since grown. Outdoor education can provide benefits for handicapped students regardless of the type or severity of the handicap if the instruction is appropriately designed to meet the learner's unique needs.

Brannan (1981) cites the following benefits of outdoor education for handicapped students. These benefits, in fact, apply to all students, handicapped or nonhandicapped.

1. The outdoors enables youngsters to participate in a "total" learning experience. Day-trips and residential outdoor education programs afford a fuller range of "true-life" learning opportunities not attainable in the typical school setting.
2. The natural environment provides opportunities to pursue learning related to all areas of the school's curriculum (i.e., math, reading, physical education) and to directly apply skills and concepts in order to solve daily life problems that appear in the outdoors.
3. Generalization and transfer of learning are facilitated, because students apply learning to different settings under different conditions and have the added incentive of using their knowledge and skills to solve "real life" problems encountered in the outdoor setting.
4. The outdoors can help develop skills of lifetime usefulness (i.e., self-directed behavior, problem-solving behavior, observation skills, inquisitiveness).

5. Social development is increased through interdependence and interaction with peers and adults. Trust relationships with others are furthered; positive interpersonal relationships are formed (child-child, child-teacher, teacher-child).

6. Opportunities for interaction with the natural environment are limitless and flexible according to the individual's interest and ability level.

7. The variety and highly stimulating effect of outdoor activities are incentives that motivate persons to employ independent and self-initiated behaviors in order to interact with their environment.

8. Outdoor education offers innumerable opportunities for employing a complete sensory approach (i.e., tactile, olfactory) when investigating and learning about one's environment.

9. The outdoors is inherently motivating and therapeutic because of the fun and adventure associated with experiencing the natural environment.

10. Exposure to the outdoors captures children's inherent interest in nature and provides the logical setting for developing awareness, sensitivity, and appreciation of their natural environment.

11. Youngsters are able to "open-up" and express their individual selves through the more informal and relaxed atmosphere unique to the outdoors.

12. Outdoor education enables handicapped youngsters to participate in a variety of activities and settings that have important potential for recreation and leisure (i.e., camping, games, swimming, hiking, historical sites, fishing).

Several innovative outdoor education programs and centers include handicapped students in their program curriculum. Some examples given by Cassidy (1982) are the following:

Bradford Woods Outdoor Education, Recreation, and Camping Center (Indiana)

Camp Confidence (Minnesota)

Colorado Outdoor Education Center for the Handicapped (Colorado)

Santa Fe Mountain Center (New Mexico)

Nassau BOCES Outdoor and Environmental Education Center (New York)

#### Rural Education and Small Schools

Because of the diverse nature of rural America it does not lend itself to an easily defined taxonomy of rural education. However, it is important to note that nearly two-thirds of the 15,600 public school districts are located in rural areas, and that approximately one-third of the nation's

student body attend rural and small schools (REA News, 1982). These impressive figures support the position that the issues and challenges facing rural education, while in many cases different, are no less important than those educational issues facing urban America.

#### Increased Awareness and Interest in Rural Education

During the past few years there has been a definite increase in the level of interest in rural education. This is reflected at the federal level by the formation of the Department of Education's Intra-Departmental Committee on Rural Education. At the state and local levels, there has been an explosion of centers, agencies, and organizations that focus wholly or in part on the issues of rural education and small schools. The Rural Education Association, for example, has experienced a 50% increase in membership in the last five years. A half dozen new university rural education/small school centers have been established in the last year.

Based on a recent survey carried out by the ERIC Clearinghouse on Rural Education and Small Schools (CRESS), the number of organizations and programs with a major emphasis on rural education and small schools has more than doubled since the last ERIC/CRESS survey in 1983.

Of the 82 organizations and programs in the survey, 60% (49) have been initiated since 1980. Of the 10 state programs, only 2 existed prior to 1983. Only 10 of the 17 university-based programs existed before 1980. The oldest organization is the Rural Education Association, which was established in 1907. Three national organizations, three state organizations, four state programs, and two university-based programs were initiated in 1985.

The three new national organizations include the Consortium of Higher Education Rural Program Administrators, the Rural District Forum of the National School Boards Association, and the National Rural Teacher Education Association. The Arizona Small and Rural School Association, Colorado Association for Rural Education, and the Minnesota Rural Education Association constitute the new state professional organizations. New state programs include the Nevada Department of Education's liaison agreement with the Nevada Rural School District Alliance and the New Jersey State Department of Education's Rural Initiative Committee. North Dakota's Department of Public Instruction has a newly appointed Coordinator of Small and Rural Schools, while the Oklahoma State Department of Education has recently created an Office of Rural Education. Finally, in 1985 Central Missouri State University and Francis Marion College established centers for rural and small schools.

While only 15 programs, or 18% of the entries, represent national organizations or programs, grassroots strength is shown in the state and university activities which account for 70% (57) of the entries.



Research in Rural Education

The new interest and attitudes among rural educators regarding research are most encouraging trends. Leaders in the field of rural education are now saying that any efforts towards improving the quality of education in rural and small schools must be based on documented, sound educational practice and applied research findings.

While, as Stephens (1985) points out, the existing research on rural education is rather meager and tends to lack sophistication the two major national rural education professional organizations have recently come forth with research agendas. The National Rural Development Institute surveyed 461 rural educators while the Rural Education Association surveyed 20 members of its executive and research committees to determine research priorities in rural education (Helge, 1985; Barker & Stephens, 1985). Both studies agreed upon a number of research themes including:

- o Rural school effectiveness
- o Rural school finance
- o Use of advanced technologies for instruction and administration
- o Personnel recruitment and retention
- o Rural school and community interaction

Other Important Rural and Small School Issues

There exists an ever-increasing demand from rural educators for information on educational technology and how it can be adapted to meet the needs of rural and small schools. The type of technology and the way it is utilized in large urban school districts cannot automatically be assumed to be appropriate for rural schools. While rural educators all over the country are discovering the potential for utilizing educational technology in the areas of educational management and direct instruction, they are also demanding to know which technologies are most appropriate for rural schools.

Finally, consolidation is a much debated issue. Barker and Stephens (1985) point out the need for serious investigations into the effects of consolidation on rural schools and communities, as well as the need to be able to identify accurately when consolidation is an appropriate option, and when to explore alternatives to consolidation such as multiple district superintendencies and collaborative arrangements between school districts.

References

American Council on Education. (1983). Minorities in higher education. Second annual status report. Washington, DC: Author. (ERIC Document Reproduction Service No. ED 240 207)

American Indian/Alaska Native education: Quality in the classroom. (1983). Washington, DC: National Education Association. (ED 250 137)

- American Indians--U. S. Indian policy, tribes and reservations, BIA: Past and present, economic development. (1984). Washington, DC: Bureau of Indian Affairs. (ED 249 022)
- Arce, C. H. (1982). The status of higher education of Hispanics. Testimony prepared for the hearings on Hispanic access to higher education before the Subcommittee on Postsecondary Education of the Committee on Education and Labor. House of Representatives, 97th Congress, 1st Session, September 16, 1982.
- Barker, B., & Stephens, R. (1985, May). A national rural education research agenda. A report presented to the Interagency Committee on Rural Education, U. S. Department of Education.
- Bradley, C. (1982). The state of the art of Native American mathematics education. Reston, VA: National Council of Teachers of Mathematics.
- Brannan, S. A. (1981). EXPLORE Program. Portland, OR: EXPLORE Education.
- Brown, G. H., Rosen, N. L., Hill, S. T., & Olivas, M. A. (1980). The condition of education for Hispanic Americans. Washington, DC: National Center for Education Statistics. (ED 188 853)
- Cassidy, Anne E. (1982). Outdoor education for the handicapped project: An overview. Las Cruces, NM: ERIC/CRESS. (ED 233 401)
- Castillo, M. (1984). Underrepresentation of minorities who transfer to baccalaureate institutions. San Antonio, TX: Author.
- Center for Statistics. (1986). Education statistics: A pocket digest. Washington, DC: Office of Educational Research and Improvement.
- Duran, R. P. (1984). Hispanics' education and background. Predictors of college achievement. New York: College Entrance Examination Board. (ED 230 665)
- Federal Register (13 November 1978). In J. D. Garcia & E. D. Minkler, Project directors' management manual: Migrant education projects. Title I migrant amendment. Public law 89-750. Salem, OR: State Department of Education. (ED 180 701)
- Federal Register, Section 116d.51. (3 April 1980). Washington, DC: Government Printing Office.
- Fernandez, E. W. , & Denavas, C. (1985). Persons of Spanish origin in the United States: March 1982. Population characteristics. Washington, DC: Bureau of the Census. (ED 257 606)
- Ford, Phyllis. (1986). Outdoor education: Definition and philosophy. Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools.

- Gilchrist, C. (1983). Addressing the vocational/employment needs of migrant youth: Needs assessment report. A pilot survey of secondary migrant youth and vocational programs in Connecticut and nationwide. Rocky Hill, CT: Connecticut Migratory Children's Program. (ED 237 262)
- Goodeagle, G. (1984). Meeting the challenges of educational change for Indian people. Washington, DC: National Advisory Council on Indian Education. (ED 254 990)
- Green, R. (1978, September). Math avoidance: A barrier to American Indian science education and science careers. Washington, DC: Bureau of Indian Affairs. (ED 170 084)
- Helge, D. (1985, February). Establishing a national rural education research agenda via empirical research. Bellingham, WA: National Rural Development Institute, Western Washington University. (ED 256 530)
- Indian culture and its relationship to child abuse and neglect (revised). (1980). Tulsa, OK: National Indian Child Abuse and Neglect Resource Center. (ED 229 193)
- Interstate migrant education task force: Migrant health. (1979). Denver: Education Commission of the States. (ED 180 712)
- Johnson, F. C., Levy, R. H., Morales, J. A., Morse, S. C., & Prokop, M. K. (in press). Migrant students at the secondary level: Issues and opportunities for change. Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools.
- Leap, W. (1982). Dimensions of math avoidance among American Indian elementary school students. Final report. Washington, DC: American University. (ED 244 748)
- Lunon, J. K. (1986). Migrant Student Record Transfer System: What is it and who uses it? Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools.
- Make something happen. Hispanics and urban high school reform. Volume I. Report of the National Commission on Secondary Education for Hispanics. (1984). New York: Hispanic Policy Development Project, Inc. (ED 253 598)
- Make something happen. Hispanics and urban high school reform. Volume II. Report of the National Commission on Secondary Education for Hispanics. (1984). New York: Hispanic Policy Development Project (ED 253 599)
- Moore, C. G. (1981). The Navajo culture and learning mathematics. Flagstaff, AZ: Northern Arizona University. (ED 214 708)
- Nelken, I., & Gallo, K. (1978). Factors influencing migrant high school students to drop out or graduate from high school. Chico, CA: Nelken (Ira) and Associates, Inc. (ED 164 245)

- Paisano, E. L., & Crook, K. A. (1984, August). American Indian areas and Alaska Native villages: 1980. Census of Population. Suitland, MD: Bureau of the Census. (ED 257 604)
- Peng, S., & Takai, R. T. (1983, November). High school dropouts: Descriptive information from high school and beyond. Washington, DC: National Center for Education Statistics. (ED 236 366)
- Plisko, V. W. (1984). The condition of education. A statistical report. Washington, DC: National Center for Education Statistics. (ED 246 521)
- Process for developing an Indian parent program. Parenting process training curriculum. (1983). Washington, DC: National American Indian Court Judges Association. (ED 251 254)
- Project HAPPIER final report of survey results: Migrant family survey. (1984). Harrisburg: Pennsylvania State Department of Education. (ED 256 552)
- Ramon, G. (1985). Counseling Hispanic college-bound high school students. Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools.
- REA News. (1982, Fall). Research focuses on problems of rural schools. Rural Education News; 32(4), 4-5.
- Rendon, L. I. (1985). Preparing Mexican Americans for mathematics- and science-based fields: A guide for developing school and college intervention models. Las Cruces, NM: ERIC Clearinghouse on Rural Education and Small Schools. (ED 260 853)
- Rose, E. (1985, October 16). Teen-age fathers caring, involved, study finds. Education Week.
- Slesinger, D. P. (1979). Health needs of migrant workers in Wisconsin. Madison: University of Wisconsin--Extension Department of Rural Sociology. (ED 178 252)
- Smith, B. J. (1980). I am responsible for me (Louisiana Migrant Education Health Services Bulletin 1554) (revised 1980). Baton Rouge: Louisiana State Department of Education, Bureau of Migrant Education. (ED 204 093)
- The Southwest Indian report. (1973). Washington, DC: United States Civil Rights Commission. (ED 080 228)
- State-of-the-art report on mathematics achievement of students of Black, Hispanic, and Native American origins (Final Report and Annotated Bibliography). (1980, July). Washington, DC: Creative Associates, Inc.
- Stein, M. (1979). The healthy migrant child. Harrisburg: Pennsylvania State Department of Education. (ED 178 253)

Stephens, R. (1985, Spring). Toward the construction of a research and development agenda for rural education. Research in Rural Education, 2(4), 167-171.

Strazicich, M. (Ed.). (1984). Guidelines for health services for migrant students. Sacramento: California State Department of Education. Bureau of Community Services and Migrant Education. (ED 256 540)

Wilkinson, G. T. (1980, October). On assisting Indian people. Social Casework.