INTRODUCTION

Alaska Natives in the 1990s are far better educated than ever before. Many more are graduating from high school and college and more are obtaining advanced degrees. But a number of serious problems with Native education have gone unresolved. This paper identifies several crucial problems and recommends ways that public policy could help alleviate them. The paper reviews available research in the field of Native education in Alaska, summarizes what we know, and identifies gaps in information relevant to policy formation.

Many different educational issues could be chosen for inclusion in this paper. Since other papers in this series focus on issues of cultural survival and sociocultural concerns, this paper concentrates on issues specifically related to schooling. We selected these particular issues because they represent long-term, fundamental problems; some documentation is available; and institutional policy efforts might help resolve them.

These issues are:

1. Preventing Fetal Alcohol Syndrome and developing appropriate educational strategies for children with alcohol-related birth defects

2. Increasing academic achievement—the problem of low test scores

3. Providing bilingual and bicultural education

4. Developing a secondary education system: boarding schools or small local high schools

5. Increasing the college success of Alaska Native students—especially Native men

6. Reducing educational problems and high drop-out rates of urban Native students

7. Increasing numbers of Native teachers in the schools

8. Mustering the institutional will to develop new and imaginative approaches to the persistent problems in Native education

BACKGROUND

The education of Alaska Native children traditionally took place within the family and community. Young boys received instruction in such vital skills as hunting techniques, and young girls learned such skills as food preservation and skin-sewing. Native education in this period reflected indigenous values and prepared children to live as their people historically had.

The increasing encroachment of non-Native outsiders, however, made it necessary for Native peoples to acquire the skills to deal with the non-Native world. In the 1990s, the survival of Native peoples and the attainment of Native goals require that they learn how to manage and professionally staff multi-million dollar business corporations and complex social programs in such areas as health and education. At the same time, Native peoples want to use schooling as a means of teaching children indigenous values and assuring cultural survival.

Throughout the history of Native education, these two purposes of schooling have been at issue and sometimes in conflict. Early schools for Native children were organized and administered by outsiders—religious groups, the Department of the Interior, and the State of Alaska—and did not reflect community values and hopes for children.

During the Russian period in Alaska (roughly from the late 1700s through the mid 1800s), religious schools were founded by Russian missionaries with the fundamental purpose of Christianizing the Native population (Peratrovich 1970). The school curriculum emphasized religion and literacy so Native children could read Scriptures.

With the Russian withdrawal and the American takeover, Native education was neglected for many years (Peratrovich 1970). The Organic Act of July 4, 1884 appropriated $15,000 to educate Indian children. Dr. Sheldon Jackson, appointed as general educational agent for Alaska, distributed these funds first to mission schools of several denominations which were organized in different regions of Alaska. After 1894, mission schools were no longer subsidized, and the U.S. Bureau of Education took over most of them.

The Territory of Alaska took over the education of white children through the Nelson Act of 1905, but the Secretary of the Interior continued to take responsibility for the education of Native children. As time went on, municipal school districts were created in areas of city or borough government. While some schools were gradually transferred from the Department of the Interior to the State of Alaska, until recent times the federal Bureau of Indian Affairs continued to operate many schools for Native children in rural Alaska. Finally, in the 1970s, oil revenues allowed the State of Alaska to assume financial responsibility for Bureau of Indian Affairs elementary and boarding schools. However, both Bureau of Indian Affairs Schools and the State-Operated School System that replaced them were centrally operated by administrators distant from Native communities.

To provide more local control over education, a new form of educational governance was created in rural Alaska in 1976—Regional Education Attendance Areas (REAAs). While school consolidation in most of the country was creating larger administrative units, the Alaska legislation divided the former State Operated School System into 21 small, regionally controlled school districts (Darnell 1979). These small districts create potential opportunities for local control, but their small size also creates problems. Small districts find it difficult to obtain the resources necessary for important projects, like research critical for developing effective programs to serve alcohol-affected children, or the materials centers necessary for creating local cultural materials.

The small size of rural school districts and of many rural communities also creates an especially difficult problem—how to provide secondary education for Native students. Until 1976, few high schools existed in rural Native communities. Adolescents who wanted a secondary education were forced to leave home and enter boarding schools or attend town or urban high schools through the boarding home program. A lawsuit *(Tobeluk v. Lind)* brought by Native students over their right to have high schools in their home communities resulted in an out-of-court settlement whereby the State of Alaska agreed to provide high schools in rural communities which requested them.

Most rural communities wanted local high schools, and high schools were constructed in dozens of villages. Parents wanted their children at home and valued the opportunity to have more control over staffing and curriculum. But these small high schools found it difficult to provide diversity of teachers, specialized courses, and a variety of extracurricular activities. As a result, the state government re-opened Mt. Edgecumbe, formerly a Bureau of Indian Affairs boarding school in southeast Alaska, as an option for rural secondary students. Student applications to Mt. Edgecumbe have exceeded the school's capacity, creating interest in constructing new boarding schools. But at the same time, providing new boarding schools would create a policy problem. The loss of students and student revenues for the small high schools would make it more difficult for these schools to offer high quality education. The secondary education issue continues to be unresolved: whether to provide boarding schools for some rural students, at the risk of weakening the small high school programs that others prefer.

Many effective programs have been developed to address the educational and cultural needs of Native students. But the small size of many rural communities and school districts, the stress caused by rapid cultural change, and the tension between western and indigenous world-views still create policy problems which need attention.

POLICY ISSUES

PREVENTING FETAL ALCOHOL SYNDROME AND DEVELOPING APPROPRIATE EDUCATIONAL STRATEGIES FOR ALCOHOL-AFFECTED CHILDREN

Alcohol abuse during pregnancy damages the brain and central nervous system of the fetus and forever limits children's educational possibilities. It is therefore of the utmost importance to develop and evaluate effective methods for preventing alcohol-related birth defects and for educating alcohol-affected children.

Fetal Alcohol Syndrome affects children of every ethnic group, and indeed the highest recorded number of alcohol-affected children in Alaska were born to a non-Native woman. The number of children affected by alcohol in Native communities is not clear, but community members and teachers have identified this problem as critical.

Characteristics of Children with Fetal Alcohol Syndrome and Fetal Alcohol Effects

"Fetal Alcohol Syndrome" (FAS) is a medical diagnosis for a pattern of birth defects caused by heavy prenatal exposure to alcohol. The diagnosis requires a history of maternal drinking during pregnancy and a symptomatic pattern in the following three areas:

1. Growth Deficiency

Children with FAS are typically short or thin or both. Adolescents may be plump for their short height.

2. Facial Malformations and Other Anomalies

Children with FAS have a particular pattern of facial malformations, such as thin upper lips and flat midfaces. They frequently have other physical anomalies, such as scoliosis and heart problems.

3. Central Nervous System Effects

Many children with FAS have neurological problems—such as hyperactivity, attention deficits, and perseveration. While some have tested intelligence levels which qualify them for special educational services, others do not.

Children with some but not all of these characteristics are placed in the category of "Fetal Alcohol Effects" (FAE). It is important to recognize that children with FAE may be as much in need of special educational services as children with the full syndrome. Indeed, Streissguth and her colleagues (1986), in their landmark study of FAS and FAE with special attention to Native Americans, found that children with FAE faced more severe adjust-ment problems than children with the full syndrome. Young people with FAE were blamed personally for their disturbing behavior, and they were not as likely to be placed in special education or other sheltered situations where their problems were recognized and understood.

Prenatal alcohol exposure of the fetus has a wide range of later physical, intellectual, and behavioral effects. Mental retardation is a common problem, although some children with FAS or FAE have IQ levels close to the normal range (Streissguth et al. 1986). Children with alcohol-related birth defects typically have learning problems in school. Very often they cannot focus on tasks. Many are hyperactive, discharging energy through constant movement. Many have special difficulty learning arithmetic, dealing with abstract concepts, remembering information, performing sequential tasks, or generalizing what they have learned from one situation to another.

Prevalence of FAS and FAE Among Alaska Native Children

Since diagnosis of FAS or FAE is difficult, reasonably accurate incidence rates are hard to establish. There is no laboratory test for FAS or FAE, and diagnosis must be done by an experienced dysmorphologist. Often the syndrome is not recognizable at birth but becomes evident later on. Physicians often miss the diagnosis or are reluctant to label children.

Native American populations are at special risk for alcohol-related birth defects, although prevalence varies widely by particular tribal group (May 1986).

Among Alaska Native populations, the best incidence figures available have been collected by the federal Alaska Area Native Health Service, which reports an FAS rate of 5.1 per 1,000 live births between 1981 and 1988 among Alaska Native women (Hild 1991). The lowest rate was found in the Kodiak region (2.1 per 1,000) and the highest in the Copper River region (25.8 per 1,000). As a comparison point, the FAS rate in North America is estimated as 2.2 cases per 1,000 live births (Reviewed in Weeks 1989).

Experienced observers in Alaska, however, often put FAS and FAE rates much higher. Making a similar point about areas outside Alaska, Dorris (1989) reports his discussion with Jeaneen Gray Eagle, director of the tribal council's drug and alcohol rehabilitation effort on the Pine Ridge Reservation in South Dakota:

> She was aware of the relatively low incidence of FAS reported in some published studies—five or six impaired children out of every thousand born in particular communities, but I could tell she didn't give these figures much credence....
>
> Again I put the question: of those Sioux children born on Pine Ridge, how many did she think might be impaired by prenatal drinking?
>
> "I would say right now we probably have about twenty-five percent of our children here on this reservation, and that's conservative. It's probably higher, but twenty-five percent would be a solid base." (p. 157)

In Alaska, experienced rural teachers often report having two or three children in their classrooms who they suspect are alcohol-affected. If the teachers are correct, the problem of FAS and FAE is far more serious than the official statistics indicate. One possibility is that teachers may be casually diagnosing and mislabeling children—a special hazard in view of the publicity that FAS and FAE have recently received. But the possibility also exists that the teachers' estimates are not far from the mark. In a Canadian study of an isolated, economically depressed Native community, for example, a team of medical specialists diagnosed 22 of the 116 children as having FAS or FAE—a rate of almost one child in five (Conry 1990).

Prevention and Intervention Programs for FAS and FAE in Alaska

Given the seriousness of the problem of FAS and FAE in Alaska, two policy questions need to be considered:

1. What prevention efforts are underway for Alaska Natives, how effective are these efforts, and what else may be needed?

2. What intervention efforts are underway to identify and assist children and parents who are already affected by FAS or FAE, and what other educational programs may be needed?

Alaska has developed a Fetal Alcohol Syndrome Prevention Program for Alaska Native populations. In 1986, the federal Alaska Native Health Board undertook the task of reducing alcohol-related birth defects and hired an FAS coordinator to develop a statewide prevention program. A parallel effort exists at the state level, but the state program is at a much earlier stage of development and does not focus specifically on Alaska Natives. In 1991, Maniilaq Association (a Native non-profit organization) received a $300,000 grant from the Robert Wood Johnson Foundation for community education about Fetal Alcohol Syndrome. This is another major prevention effort in the early stages of development.

The program already established by the Alaska Native Health Board and Alaska Native Health Service includes seven components (Hild 1991):

1. Regional health corporation FAS training and regional FAS program development—educating staff to identify, refer, and follow mothers and children at-risk

2. Creation of an FAS register to provide follow-up and monitoring of children suspected of having FAS or FAE

3. Yearly diagnostic clinics to assist in making a diagnosis of FAS or FAE

4. Prematernal homes in Anchorage and eight other regions

5. Residential treatment programs for substance-abusing pregnant women

6. FAS networking system to provide communication and advocacy

7. Statewide FAS training and education, such as the development of culturally appropriate videotapes

Hild (1991) points to a 25 percent decrease in the FAS rate in 1990 among Native women, which she considers a result of these efforts. While this decrease may indicate the effectiveness of this comprehensive program, it may also be explained by the increased level of awareness about FAS and FAE created by the mass media, apart from specific program efforts.

An external evaluation of these prevention efforts, with an emphasis on determining the effectiveness of various components and areas of unmet need, would be useful. It is crucial for policymakers to have detailed knowledge of what program approaches are most effective in preventing this serious problem.

While prevention of FAS and FAE should remain the priority policy inter-vention, many children with alcohol-related birth defects are already in the school system. In the 1991-92 school year, teachers and school personnel were made aware of FAS and FAE through legislatively mandated inservice education. The problem is that little knowledge is available concerning what educational strategies or program models are most effective with alcohol-affected children (Kleinfeld 1991).

Very few school districts have developed appropriate programs to work with these children, particularly three- to five-year-olds, who are no longer served by Infant Learning Programs. Often children with FAS or FAE make excellent progress in their homes, when parents are assisted by infant learning specialists, only to lose their eligibility for services and regress during the crucial preschool years.

School districts would benefit from grant programs to develop innovative educational programs for children with alcohol-related birth defects. Special attention should be given to programs serving three-to five-year-old children.

Increasing Academic Achievement—The Problem of Low Test Scores

With the development of a statewide testing program in Alaska in 1989, public information became available on the comparative achievement levels of students throughout Alaska. In 1989-90 and 1990-91, districts were required to give the same test—the Iowa Test of Basic Skills—to fourth, sixth, and eighth grade children. While test results are not published by ethnicity, the low achievement levels of many of Alaska's rural school districts, where the majority of students are Alaska Native, have become a matter of public scrutiny and concern.

On the average, Alaska students scored above the 50th percentile in reading, mathematics, and language arts (Alaska Department of Education 1991). This score indicates that Alaska students, as a group, are performing above the national average. In the eighth grade, for example, Alaska students scored at the 56th percentile in reading, mathematics, and language arts. At the sixth grade, the students scored at the 55th percentile in reading and math, and at the 52nd percentile in language arts. At the fourth grade level, they scored at the 51st percentile in reading, the 52nd percentile in math, and the 49th percentile in language arts. What is encouraging about these scores for Alaska as a whole is not only that they are somewhat higher than the national norms but also that the national standing of Alaska students improves as they progress through the fourth, sixth, and eighth grades.

The educational issue centers on the low performance of many rural school districts, where most students are Alaska Native. Of school districts where 85 percent or more of the eighth grade students are Alaska Native, none have scores at the 50th percentile, the national average (Table 1).

Table 1. Grade 8 Achievement Test Scores of Alaska School Districts with 85% or More Alaska Native Students

District	National Percentile Rank		
	Reading	Math	Language Arts
Aleutians East Borough	35	49	41
Annette Island	28	22	26
Bering Straits	26	26	43
Galena	42	47	39
Hydaburg	45	30	37
Iditarod	23	26	33
Kake	30	40	40
Kashunamiut	11	8	7
Kuspuk	26	30	27
Lake and Peninsula	39	45	44
Lower Kuskokwim	21	29	29
Lower Yukon	15	15	22
Northwest Arctic	21	30	33
Pribilof	24	26	25
Saint Marys	19	33	20
Southwest Region	19	14	25
Yukon Flats	27	20	26
Yukon-Koyukuk	42	36	42
Yupiit	5	4	4

Results reported only when 5 or more students are tested.
Source: Alaska State Assessment, Iowa Test of Basic Skills, 1990.

A crucial point, however, is that not all rural school districts with 85 percent or more Native students show exceptionally low scores. A few districts, such as Yukon-Koyukuk in interior Alaska, have scores approaching national norms. In reading, Yukon-Koyukuk students score at the 42nd percentile, in math at the 36th percentile, and in language arts at the 42nd percentile. These relatively high scores are not explained by a regional center having a large number of children with strong educational backgrounds. While other possibilities—such as proximity to Fairbanks—cannot be overlooked, part of the explanation may well lie in the educational innovations that this school district has developed, a few of which are discussed below.

At the other extreme, the Yupiit school district in southwestern Alaska has extraordinarily low scores—5th percentile in reading, 4th percentile in mathematics, and 4th percentile in language arts. Since these percentiles represent the "average" scores, some Yupiit students are scoring at the very bottom of students nationally.

Comparing the performance of rural school districts is a risky enterprise because achievement test scores are profoundly affected by the backgrounds of students. For a community like Galena, with a sophisticated population at a transportation crossroads, scores at the 40th percentile and above are not surprising. But a district like Yukon-Koyukuk, with its rural, isolated schools, does stand out for its exceptionally high performance.

One possible explanation for the high achievement test scores of Yukon-Koyukuk students, especially in difficult areas such as reading, may be the systematic attention that this district has given to language arts and reading instruction over the last few years. One such example is Yukon-Koyukuk's River Reader Program. Students were supplied with a wide variety of library books; they received prizes—pencils, sweatshirts, chances on a bicycle—for reading a certain number of books.

In 1989, about 500 of the 600 students in the Yukon-Koyukuk district took part in the program. They read 19,723 books—actual library books—outside of school. That is an impressive 40 books per student. The program was especially effective in boosting the reading scores of the lowest achieving students. Yet its cost was not substantial—$20 per student, for a district total of about $10,000.

The River Reader Program exemplifies an instructional strategy that is both effective and inexpensive for rural students and appears to be powerful in raising achievement test scores. But the lesson of this experience is not merely the efficacy of one special instructional approach—a particular reading program—but the power of widespread community support for educational goals. As McCurry, McCurry, and Cline (undated) write:

> A key to the success of the program was the existence of a core group of parents who actively wanted to help. Other more reluctant parents became involved as their own children and the more active parents exerted pressure....We can set higher standards for Indian children than many teachers dream, particularly when these standards are supported by parental involvement.

In short, the success of the River Reader Program rested on partnerships between the school system and the Native parents of the communities—mutual support of the goal of increasing reading achievement for children, and of the River Reader Program as an appropriate method for doing so.

In rural districts with low achievement test scores, distrust often exists between Native communities and school people (Kleinfeld, McDiarmid, and Hagstrom 1985). The history of schooling in the region reveals continual friction and frustration regarding the daily round of school life—the choice of teachers, the role of teachers' aides from the community, the school calendar, the amount of bilingual instruction or cultural subjects included in the curriculum. In Northwest Arctic School District, for example, where reading achievement is only at the 21st percentile, a study of education and employment reports:

> A commonly expressed view was that many parents were unwilling to hold students to the higher academic standards schools were trying to set, and that some parents actively undermine such efforts, feeling that they place too much stress on children. Key informants reported a small but increasingly vocal group of parents who view schools as having a destructive influence on the Native culture and are openly hostile to schools. Several informants said that few children have educational materials at home and few are encouraged to read and discuss what they read with other members of the household. Thus, assigning students homework is difficult and unpopular in many households (Gorsuch and Ongtooguk 1991:84).

For achievement among Alaska Native children to show substantial improvement, trust and mutual goals must be created between Native communities and the schools. Where the community and the school hold common goals and parents and teachers support each other, the students are more likely to persevere in difficult and demanding school tasks. Where the community and the school are at odds, students will not make a psychological commitment to the serious effort that academic tasks require.

Creating home and school partnerships in the area of preschool education is another important strategy. Well-designed preschool programs, like the Perry Preschool Project, have been shown to provide substantial long-term benefits to minority children. Many Native communities have a successful history with community organized preschool programs, and these can be strengthened.

Developing partnerships between rural communities and schools may do much to improve rural education. Both school staff and community residents would benefit from programs which develop trust and mutual support. Preschool programs, where many rural communities already have a history of success, are a particularly important area of emphasis.

Providing Bilingual and Bicultural Programs

Schooling as an institution is designed to pass on to children the knowledge, skills, and values important to the adult community. Many Native people want to use the schools to socialize children into Native ways of life—indigenous languages, values, skills, and, above all, a Native world-view.

A perennial issue has been the extent to which the school as an institution can succeed in providing children with a Native education. Some see bilingual and bicultural education as compatible with a western curriculum. The

school day, they argue, can accommodate the study of English and the study of a Native language, the study of the American Revolution and the study of the Alaska Native land claims settlement. Both areas of knowledge are important and both can be presented.

But others see the school as an essentially western institution which is in destructive conflict with Native goals and fundamental cultural values. Schooling itself, they argue, is the source of much of the identity confusion of the young people, and Native education has been lost. An eloquent report expresses this perspective:

> Before the creation of school houses and the introduction of professional teachers to whom western civilization entrusts the minds of their children, education was growing up in a village. Education was done in the home with the father, mother, grandmother, grandfather, brother and sister, uncles, aunts, cousins, and friends. Education was also given by the weather, the sea, the fish, the animals, and the land. Children at a very early age came to terms with the elements. We did not have to worry about relating education to life, because learning came naturally as part of living. Education was the process of living from the land, of subsisting, of surviving.
>
> The coming of western civilization broke this unity of education and living. Suddenly survival depended upon knowing a new language, new skills, and new ways of relating to people and the world. Today we have entrusted the minds of our young to professional teachers, who seemingly know all there is to know. They are teaching a child how to read, write, repair a car, weld two pipes together. But they are not teaching the child the most important thing. Who he is: an Eskimo or Indian with a history full of folklore, music, great men, medicine, a philosophy, complete with poets; in short, there was a civilization, a culture which survived the harshest of environments for thousands of years. Now this culture and the subsistence way of life are being swept away by books, patents, money and corporations (Yupiktak Bista 1977, p. 71, cited in Darnell 1979).

Table 2. Alaska Native Students in Bilingual Programs 1987-1988

Language	Speakers	Limited and Non-Speakers	Total
Yupik	1,910	2,555	4,465
Inupiaq	219	2,097	2,316
Siberian Yupik	237	31	268
Koyukon	9	234	243
Gwich'in	23	212	235
Aleut	3	135	138
Sugpiaq	1	115	116
Totals	2,402	5,379	7,781

Source: Bilingual-Bicultural Programs, Alaska Department of Education, 1987-88. (These are most recent available figures by language group.)

School districts have made efforts to introduce the study of Native cultures and languages into the classroom. In 1987-88, the most recent year for which language group statistics are available, bilingual programs served 7,781 Native students in Alaska (Table 2). Many schools have employed teachers and community members to teach Native arts. Schools have brought elders into the classroom to tell traditional stories and communicate important values. Schools have employed teachers, village leaders, and corporation members to teach Alaska Native history, the Alaska Native land claims settlement, the organization and enterprises of Native corporations, and Native contemporary events and issues. In some school districts, the school calendar has been re-arranged to accommodate subsistence activities and local events and celebrations. Local residents have also been employed to teach hunting techniques, skin sewing, and other skills of economic and cultural importance.

However, these efforts to introduce Native history, languages, and contemporary concerns into the curriculum have not proved satisfying. No published information exists on the number and quality of specific cultural programs, the extent to which these programs employ local people, and community evaluations of them. But the issue often evokes expressions of concern among Native leaders. Program personnel describe many practical problems in delivering these programs. Since some Native languages are spoken by few people, for example, it

is difficult to develop a variety of appealing, professional curriculum materials. Insufficient attention has been given to staff development. In addition, funding for bilingual and bicultural education, program personnel believe, is placed within general school district revenues and is not used exclusively for the intended purpose.

In addition to such practical concerns, fundamental educational questions remain unresolved. Are schools, as essentially western institutions, capable of doing anything more than transmitting an underlying western point of view? Is it possible to transform the school into an institution that will pass on Native languages and the underlying philosophical and spiritual beliefs essential to cultural survival? Are the western perspective and the Native perspective in inevitable conflict? Can schools be designed which socialize children in a way that creates an inner psychological unity? What might such schools look like?

This unresolved philosophical and political issue is a source of continual tension in Native education. The place for its resolution is at the community level because different Native communities have different lifestyles and thus hold different goals for their children. Subsistence communities where Yupik remains the language of everyday life, for example, may want a curriculum which emphasizes Yupik, hunting skills, and the history and culture of the region. Other communities may see the development of Native leaders sophisticated in economics to be their priority. A study of small rural high schools found that successful schools, well regarded in their communities, did not all have the same educational emphasis (Kleinfeld, McDiarmid, and Hagstrom 1985). These schools had different goals—leadership, cultural survival, college preparation. What they shared was the support of local communities.

Current information is needed on the educational nature and quality of bilingual and bicultural programs in schools serving rural students and the extent of community and student satisfaction with them. Such a study might well provide documentation for the concerns expressed by bilingual and bicultural program personnel—that insufficient attention is paid to these programs, high quality instructional materials are not available, staff need more education, and funding intended for these programs is sometimes used for other purposes.

Developing a Secondary Education System: Boarding Schools or Small Local High Schools

The issue of what type of secondary school system—boarding schools, small local high schools, or some mix of both—to provide for students in small Alaska villages has been a policy question in Native education since the early 1970s. Educational policy in recent decades swung from a secondary system based entirely on boarding schools away from home to a secondary system based almost entirely on small local high schools.

In the early 1990s, a compromise was developed. While most rural students attend high school at home, students also have the option of attending Mt. Edgecumbe, a boarding school in southeast Alaska noted for producing generations of Native leaders. Mt. Edgecumbe, however, does not have enough space for all students seeking admission. While the school is adding new dormitory facilities, demand may well outstrip available space. For this reason, policymakers are again considering the possibility of expanding the boarding school system, perhaps constructing an additional boarding school in a location in northern Alaska.

This policy discussion is at the earliest stages. The deterioration of the physical plant in many small rural high schools has re-opened the question of what might be both a cost effective and educationally effective approach to Native secondary education. The comparatively high achievement test scores of Mt. Edgecumbe students, and their higher rates of college success, have also brought to the forefront the question of whether boarding schools indeed provide a higher quality academic education than students can receive in small high schools.

Constructing additional boarding schools is not the only option for improving the quality of secondary education in rural communities. One possibility is developing, for the last two years of high school, college preparatory programs that are physically located on college campuses, such as the University of Alaska, Alaska Pacific University, and Sheldon Jackson College. Such programs would be designed to provide accelerated education for rural students choosing to go on to college. Similar strategies could also be developed for vocational-technical programs.

Another possibility for the improvement of secondary education is the development of travel programs or short, intensive courses at regional and urban centers. Such programs would keep students based in their home communities but still provide them with opportunities to meet students from around the state and to receive specialized instruction in subjects that their own high schools do not provide.

For policy formation in the 1990s, it is important that we examine the secondary education issue and consider whether additional boarding schools should be constructed for Native secondary students, whether the village high school system should be strengthened, or whether a different option, such as college preparation programs attached to universities, should be explored.

In considering this issue, it is helpful to review the findings of major studies of the boarding school system (Kleinfeld 1973) and the small rural high school system (Kleinfeld, McDiarmid, and Hagstrom 1985). In brief, this research drew the following conclusions:

1. High rates of social and emotional problems occur in Native students sent away from home in the ninth and tenth grades, together with high drop-out rates and low achievement test gains. However, these problems occurred when all Native students were sent away to boarding schools during early adolescence, not when a small, older, self-selected group of students chose boarding schools.

2. Most rural communities want both the village high schools and some type of boarding school option. Local school board members see the issue of secondary education as the development of a system with choices, rather than a decision between local high schools versus boarding schools.

3. High school graduation rates among rural students have greatly increased as a result of replacing boarding schools away from home with small schools at home. On the other hand, achievement test scores of students in small rural high schools are quite low.

4. Some small high schools offer a high-quality educational program well adapted to local circumstances and community priorities, while others have serious problems in developing programs that take advantage of the strengths of small size while minimizing the problems. Small high schools, in short, are not uniform; their quality varies widely.

5. Small high schools serve many functions in addition to secondary education in rural communities—for example, providing community recreation, shop facilities, and sports events.

6. Boarding schools away from home offer the advantages of advanced academic classes, specialized teachers, a greater variety of activities, and an opportunity to become familiar with a broader cultural milieu. Village high schools offer the advantages of closer ties to family and community, educational programs more in harmony with the local setting, and closer and more personal relationships with teachers.

In sum, the current secondary educational system is based on small local high schools but creates some opportunities for students who want to attend a boarding school away from home. Whether the boarding school system should be expanded, how far it can be expanded before undermining the small rural high schools, and whether other options should be developed are important questions to consider. The policy compromises appropriate for the 1980s are not necessarily the right compromises for the 1990s.

Increasing the College Success of Alaska Native Students—Especially Native Men

Alaska Native students are increasingly graduating with four-year degrees, and some are attaining master's degrees as well. In 1990, 50 Native students graduated from the University of Alaska system with baccalaureate degrees and 7 with master's degrees (Table 3). Native students are also receiving college degrees in more fields. Of the 50 Native students who graduated with four-year degrees in 1990, 24 received them in education, but others got degrees in such fields as business administration and mathematics.

Table 3. Alaska Natives and Caucasians Receiving Higher Education Degrees in 1990 in University of Alaska System, by Gender

Degrees Awarded	Alaska Native/ American Indian*		Caucasians	
	Male	Female	Male	Female
Certificate	4	12	57	48
Associate	16	29	188	311
Baccalaureate	9	41	335	471
Master's	2	5	108	112

*These groups are not distinguished in the University reporting system. Source: 1991 Statistical Abstract, University of Alaska System, Office of Institutional Research.

Progress is occurring, but Native students still do not attend college in the same proportions as Caucasian students do. In 1990, almost 9 percent of University of Alaska students were Native, while the proportion of Natives 18 and over in the general population was 13 percent (Yarie 1991).

Another disturbing issue is the gap that has arisen in the college success of Native men and Native women. For example, in the University of Alaska system in 1990, only 9 Native men graduated with four-year degrees compared to 41 women (Table 3).

This gender disparity in educational achievement is not a traditional cultural phenomenon. The change has occurred recently, and the gap is steadily widening (Kleinfeld, Gorsuch, and Kerr 1988). In the 1960s, college graduation rates of Native men and women were similar. In the 1970s, Native women graduating with four-year degrees started outnumbering Native men by more than two to one. In the 1980s the ratio climbed to almost four to one. In 1990, the ratio was approaching five to one.

The disparity in college graduation rates between Native men and Native women is cause for concern because of the tremendous impact attending college has on personal development. Graduation from college, many studies indicate, not only affects knowledge and intellectual skills. College graduates also tend to develop a different world-view (Pascarella and Terenzini 1991). They are more likely to look at issues in complex ways. They tend to develop more liberal social and political attitudes, including views about the appropriate roles of men and women. Native people are already making difficult and complex adaptations to the traditional and modern worlds. The greater college education of Native women may well lead them to choose adaptations different from those of Native men—which, in turn, may affect family unity and cultural stability.

Why Native men are not graduating from college in greater numbers is not clear. The problem may lie in the college experience itself and the degree of support provided to Native men. At the University of Alaska, Native men and Native women enter in relatively equal numbers (Table 4). In 1990, for example, 52 Native males and 60 Native females entered the University of Alaska system as first-time freshmen. The gender gap is small when students enter college and progressively widens during the college years.

Table 4. Alaska Native* Students in University of Alaska System in 1990, by Class Level and Gender

	Male	Female	Total
First-time Freshmen	52	60	112
Other Freshmen	39	63	102
Total Freshmen	91	123	214
Sophomores	31	61	92
Juniors	6	19	25
Seniors	8	32	40

*American Indian students are included in this grouping in the University reporting system.
Source: 1991 Statistical Abstract, University of Alaska System, Office of Institutional

One positive possibility, suggested by some counselors, is that Native men receive tempting employment offers while they are in college and leave for high-paying jobs, such as with Native corporations. But there are other alternatives—for example, that the special programming universities provide for Native students is more attuned to the needs of women than men, or that the distinctive needs of Native males are not understood. We also do not know if Native men enter college with levels of academic preparation lower than Native women. A special analysis to explore gender differences in Native students' scores on the 1990 Alaska Statewide Assessment reveals a persistent pattern of lower academic achievement among males, evident from the fourth to the eighth grades. (See Table 5.) Possibly this gender disparity continues through high school and is a factor accounting for lower levels of college success.

Several program alternatives demonstrably improve the success of Native students in college. One such program is the Rural Alaska Honors Institute (RAHI), which enrolls promising Native high school students in an intensive academic summer program at the University of Alaska Fairbanks campus. A recent evaluation of this program found significant increases in math and reading ability among students attending the RAHI summer session. Over 65 percent of RAHI graduates enrolled full-time in four-year programs in the fall after high school graduation (Gaylord 1989). At the end of four years, 12 percent of RAHI alumni had received four-year degrees, compared to 11 percent of a national sample of college entrants. While long-term evaluations are not available, these initial results are encouraging. It is important to note, however, that far more Native women than Native men are enrolled in RAHI.

Another program which increases Native students' success in college is the postsecondary counselor program, sponsored by certain rural school districts and Native organizations (Kleinfeld, Cooper, and Kyle 1987). A special counselor supports Native students away at college, assisting them with financial and academic problems, helping to maintain home ties, and generally guiding them through the young adult years. During the years the postsecondary counselor program began operation (1983-1986), post- secondary dropout rates averaged only about 16 percent among Yukon-Koyukuk Native graduates. At the University of Alaska, in comparison, 63 percent of students from similar backgrounds dropped out of college during their first year. Whether this approach works as well for Native men as Native women, however, is a question that has not been explored.

Table 5. Alaska Native Students' Composite Scores on the Alaska Statewide Assessment (National Percentile Rank)

	Grade 4			Grade 6			Grade 8		
	Male	Female	Grade Total	Male	Female	Grade Total	Male	Female	Grade Total
Urban	37	37	37	31	43	37	40	48	44
Rural	18	24	21	18	26	22	19	29	24
Total	23	28	25	22	31	26	23	33	28

Source: Alaska Department of Education, Alaska State Assessment, Iowa Test of Basic Skills, 1990.

The basis for the gender gap in Native college degree attainment should be studied and appropriate policy recommendations made. While program models such as RAHI and the postsecondary counseling program may be valuable for Native men, alternative program models may prove far more beneficial.

Reducing Educational Problems and High Drop-out Rates of Urban Native Students

Native students in urban school systems confront on a daily basis problems of prejudice and minority status that are less salient to Native students in rural schools. In rural schools, Native students are usually the largest group. In urban schools, Native students are clearly a minority. Many non-Native students exhibit offensive and prejudiced attitudes toward Native people in general and to Native students personally—laughing at their speech, imitating their walk, calling them names like "salmon-cruncher," or making cat-calls at films showing Native elders who have lost teeth.

Some Native students in urban schools are at an academic disadvantage as well. Many of these students have moved back and forth from rural areas, and their education has been disrupted. Differences in cultural backgrounds and inadequate academic preparation in small rural schools make it difficult for these students to do well academically in urban schools.

At the same time, many urban Native students, especially those who come from families which have spent many years in urban areas, do very well in school and enter prestigious universities. When describing "problems" of urban Native students, it is crucial to remember that many urban Native students do very well indeed.

Recent reports indicate that urban Native students receive a far higher pro-portion of failing academic grades than do students from any other ethnic group. Native secondary school students in Anchorage in 1991, for example, received failing grades in 26 percent of their science courses; 24 percent of their mathematics courses; 22 percent of their language arts courses; and 26 percent of their social studies courses (Stofflet, Fenton, and Straugh 1991). Native students received approximately three times the number of failing grades in each major academic area as white students.

Native students in urban schools also have high drop-out rates. Drop-out rates are difficult to calculate because different schools use different definitions of drop-out and different systems for calculating drop-out rates. A standardized system of reporting drop-outs is being developed but no data are yet available. Nonetheless, the information available from earlier years suggests that drop-out rates of Native students in urban schools are quite high.

In Anchorage, the urban school district which enrolls the largest numbers of Native students, approximately 8 percent of students are Alaska Native. Among 7th through 12th graders in 1991, 22 percent of the school drop-outs (268 students) were Alaska Native (Department of Management 1991).

A longitudinal study of ethnic drop-out patterns in Anchorage beginning in the 1987-88 school year found that 35 percent of Alaska Native students in the cohort dropped out before completing their senior years. An additional 16 percent of the students are classified as "summer leavers" who may have transferred without requesting that records be forwarded, but who may also be drop-outs. If these summer leavers are indeed drop-outs, then over half the Alaska Native high school students in Anchorage—the startling figure often used by advocacy groups seeking to draw attention to the problem of Native drop-outs in urban schools—do drop out of school.

In Fairbanks, a study of drop-out rates in the 1989-90 school year indicated an enrollment of 1,249 Native students and drop-out rates which ranged from almost 20 percent of Native students (243 students) to 10 percent (125), depending on which method of calculating drop-outs was used (Stayrook 1990).

In Juneau, a study of high school drop-outs in 1989-90 showed that 35 percent of the early school leavers (41 students) were Alaska Native, whereas approximately 18 percent of the student high school population in the district is Native. In 1988-89, 51 high school drop-outs in Juneau were Alaska Native (City and Borough of Juneau 1991).

The high drop-out rate of urban Native students is a serious problem in itself, and signals other problems, such as a sense of isolation within the school system. While urban school districts have attempted various programs—culture clubs, Native awareness days, special counseling and academic programming—to assist Native students, no evaluation is available which examines the relative effectiveness of these efforts.

A careful study of the difficulties of Native students in urban school systems and an evaluation of the comparative success of different program approaches would be helpful to policy formation. While urban school districts have attempted many innovations, no systematic evaluation is available which shows how successful particular innovations have been. Native organizations and urban school districts need to determine which strategies are effective and which simply waste energy and resources.

Increasing Numbers of Native Teachers in the Schools

The need for more Native teachers in both rural and urban school systems has been a concern for many years. Native teachers provide important role models for Native students and increase student confidence in the institution. Native teachers provide a vital link between Native families and the school system and reduce the tensions and distrust between school and community. In rural communities, Native teachers help to establish Native professional, rather than only political, control of the schools.

In 1991, only about 211 Alaska classroom teachers were Native—5 percent of the total number of Alaska teachers (Table 6). This proportion has remained approximately the same for the last few years. While some rural school districts have employed a substantial number of Alaska Native teachers, many other districts have no Native teachers at all. A particularly important issue is the low number of Native teachers in urban school districts such as Anchorage and Fairbanks.

Even though more Native students are graduating from college with education degrees or teaching credentials, the proportion of Native teachers in the schools is not increasing rapidly. It is not entirely clear why so little progress has been made, and this issue requires systematic study. Several possibilities have been suggested. Many Native graduates with teaching credentials say they have difficulty getting hired by school districts, especially urban school districts. They point to discrimination in hiring processes, informal hiring networks, and lack of understanding of Native styles of communication and classroom management.

Another possibility is that school districts do not succeed in retaining Native teachers. In rural areas, Native teachers often face especially difficult problems in the schools, due to unequal treatment, political matters or family ties, which may cause them to leave teaching. Native teachers may also find other employment possibilities open and more desirable, such as positions with Native organizations.

Table 6. Percentage of Alaska Native Classroom Teachers by District in 1990

	Percentage Native Teachers		Percentage Native Teachers
Aleutians Regional School District	33.3%	Kodiak Island Borough Schools	5.2
Kashunamiut	27.1	Dillingham City	4.5
Yukon/Koyukuk	23.9	Juneau Borough Schools	3.3
Yukon Flats	22.2	Aleutians East Borough	3.3
Iditarod Area Schools	18.7	Kuspuk School	2.6
Saint Marys	18.5	Ketchikan Gateway Borough	2.3
Kake City Schools	18.2	Fairbanks North Star Borough	1.5
Annette Island Schools	17.5	Alaska Gateway Schools	1.2
Yakutat City School	16.5	Anchorage School District	1.1
Yupiit School District	13.2	Chatham Schools	1.1
Lake and Peninsula	13.0	Sitka School District	1.0
Southwest Region	12.6	Kenai Peninsula Borough	0.1
North Slope Borough	12.5	Adak	0.0
Craig City Schools	11.3	Railbelt School District	0.0
Tanana City Schools	11.0	Chugach Schools	0.0
Northwest Arctic Borough	10.7	Cordova City Schools	0.0
Lower Kuskokwim Schools	9.8	Delta/Greely Schools	0.0
Lower Yukon	9.1	Haines Borough	0.0
Bristol Bay Borough	8.7	Hydaburg	0.0
Nome City Schools	8.6	Mat-Su Borough	0.0
Hoonah City Schools	8.1	Nenana City Schools	0.0
Pribilof School District	7.9	Pelican City Schools	0.0
Bering Strait	7.8	Petersburg City Schools	0.0
Mt. Edgecumbe High School	7.7	Skagway City School	0.0
Klawock City Schools	7.6	Southeast Island Schools	0.0
Wrangell City Schools	5.9	Unalaska City School District	0.0
Copper River Schools	5.4	Valdez City Schools	0.0
Galena City School	5.3	Centralized Correspondence	0.0
Total Number of Native Teachers	211		

Source: Alaska Department of Education, Special Analysis.

The success of the university system in preparing Native teachers also needs to be examined. While the numbers of Native students graduating with education degrees has increased over time, the absolute number remains small—24 students with education degrees in the University of Alaska system in 1990, as an example. Some school personnel officers and local school boards believe that the university has failed to prepare some Native students well. New program options need to be explored. One alternative, for example, is an intense, cohort-based teacher preparation program which provides financial support for Native students during the period of university preparation and helps them move quickly through their baccalaureate and teacher preparation programs.

The reasons for slow progress in increasing the numbers of Native teachers need to be explored and new program designs considered. Especially valuable may be the development of rural programs which provide intense preparation for teaching and give students the financial support they need to devote themselves to full-time study.

Mustering the Institutional Will to Develop New and Imaginative Approaches to Persistent Issues in Native Education

The basic issues in Native education have been on the public policy agenda for many years, and most no longer command public interest and attention. The problem of Fetal Alcohol Syndrome is an exception and illustrates the point. The publication of Michael Dorris' powerful book, *The Broken Cord,* brought a human drama to public attention and inspired an outpouring of policy efforts—legislation to provide warnings in places where alcohol was sold, required inservice education for teachers, the creation of treatment facilities, an international conference on how to educate children with alcohol-related birth defects.

Most of the other issues in Native education—low achievement test scores, need for bilingual and bicultural education, high drop-out rates, low numbers of Native teachers—no longer inspire imaginative research or program development. Educational decision-making in Alaska is localized in many school districts, and few have the resources or technical expertise to mount new programs or to evaluate programs carefully so that cumulative knowledge becomes available. Nor have Alaska universities or other agencies developed fresh approaches to issues of Native education that command public attention and support.

Crucial and persistent issues in Native education need to gain an important place on the policy agenda. With imaginative research and program developments that depart from outworn models, we can make substantial progress.

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