Although Native American children are theoretically eligible for gifted programming, equality of opportunity does not exist. Arizona state data show that Native American students are underrepresented statewide and in 13 of 14 counties examined. Two issues related to this underrepresentation are the definition of "gifted" used for identification and the method of assessment. Official definitions and teacher conceptions of the gifted student often do not encompass culturally different values, learning styles, and behaviors. The usual standardized tests used in public schools may fail to identify Native gifted students because they are timed and reward speed (while Native American culture values slow well-considered responses). Other potential sources of error include differences in language, background experiences, and affective dispositions between groups of student test-takers. The Gifted Attitudes Inventory for Navajos and the American Indian Gifted and Talented Assessment Model are two alternative measures of giftedness, developed through extensive interviews with Native Americans. Further attention to this issue is needed and should begin with the compiling of accurate records of Native representation in programming. In Arizona, relevant data are submitted by only 55 percent of public school districts and are not available from private and Bureau of Indian Affairs schools. (SV)
GIFTED EDUCATION FOR NATIVE AMERICAN STUDENTS,

A STATE OF AFFAIRS

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"The dearth of printed information on
American Indian gifted students is
symptomatic of the problems facing
Indian education in America today."
(Tonemah, 1987)

Access to education implies more than the mere existence of
school buildings or specialized programming. Access includes the
equal opportunity for all children to participate in such
programming. In this roundtable presentation, it is suggested
that although Native American children are theoretically eligible
for gifted programming, equality of opportunity does not exist.
An attempt is made to identify the extent to which Native
American children currently have access to gifted education in
Arizona public schools.

The primary data source we examined was provided by the
Arizona State Department of Education. All school districts in
the state of Arizona were required to submit information
regarding the total number of students in their districts and the
total number of students identified as gifted in their districts
according to ethnic group. The Arizona State Department of
Education then summarized this data by county. Information on
access to gifted programming can be assessed by comparing the
percentage of Native American students in each district
identified as gifted to the percentage of total district
enrollment identified as gifted. Figures 1a and 1b show the
percentages of Native American students and total enrollment
identified as gifted in 14 Arizona counties as well as
state-wide. Native American students appear under-represented in
call counties.

Figures 2a and 2b illustrate a comparison between the
percentage of Native Americans in each county and the percentage
of Native Americans in gifted programming in each county. It is
assumed that if Native Americans were equally represented in
gifted programming these percentages would be the same. An
examination of the graphs provided, however, shows that the
differences are negligible only in Apache county where Native
American students are only slightly under-represented. It is
important to note that in Apache county, over three-quarters of the students are Native American. Native Americans are the majority group in the schools enrolling for this county. In all other counties, as well as statewide, Native American students are clearly under-represented in gifted programming. These counties include both urban and rural areas.

Several researchers have documented the under-representation of Native American students in programs for the gifted and talented in U.S. public schools (Kirschenbaum, 1988; Tonemah, 1987 and 1991; Abbott, 1983; Christensen, 1991; and Hartley, 1991). Our survey of Arizona public schools replicates this statistic.

The concern next raised is why Native American children are under-represented in gifted programming. The two issues most often raised focus on the definition used for identification and the method of assessment. The definition of a "gifted student" adhered to by the Arizona State Department of Education is: "A student who scores at or above the 97th percentile on one or more of the following tests..." Individual districts may adjust this definition to their needs by incorporating additional means of indentifying students, such as teacher reports or student inventories, or they may "lower" the percentile cut-off to the 95th or 90th, for example, on some method of measurement. Because of limited resources, lack of knowledgeable personnel and lack of awareness, however, such modifications are limited and still often result in less of an opportunity for Native American students to be identified for gifted programming than for white students. If teachers are not culturally sensitive to differences in expression and learning style demonstrated by Native American students, they are no more likely to identify students equitably than a test is. Native American students may not "fit" their particular definition of a "gifted student".

How then should the definition of gifted and talented be broadened to include the gifts and talents of Native American students? Tonemah's (1987) classifications for gifted and talented Indian students include aesthetic abilities, acquired
skills, tribal/cultural understanding, and personal/human qualities (e.g., leadership and creativity). Kirschbaum (1988) suggests "that to identify gifted Indian students, one should attempt to determine the degree to which a student is intelligent, resourceful, attentive, able to handle new situations, able to solve problems, a quick learner, self-sufficient and dependable, knowledgeable, insightful, and able to distinguish underlying meaning."

Much of the current literature addressing the needs of Native American students consists of reports on cultural differences. Sanders (1987), Stuart and Gokiert (1990), and Heinrich, Corbine, and Thomas (1990), identify several cultural differences which affect classroom performance and may lead to cultural conflict or misunderstanding. These differences may also make Native Americans students less likely to "fit" common definitions of giftedness. These cultural differences are as follows:

**Traditional Native American Values**
- Speaking: softer, slower, interject less, delayed responses
- Emphasis on non-verbal communication, use less nodding or supportive verbal communication
- Avoidance of speaker or listener
- Cooperation, sharing, anonymity, humility, privacy
- Control of self, discipline, patience, harmony with nature
- Holistic
- Participation after observation
- Present-orientation

**Contemporary Anglo-American Values**
- Speaking: louder, faster, interrupt often, immediate responses
- Emphasis on verbal expression, use verbal encouragement
- Directly address speaker or listener
- Competition, personal goals, fame, recognition, expressive
- Control of others, blame other, aggressive, competitive, subjugation of nature
- Analytic, inquisitive
- Trial and error learning
- Future-orientation

To assure equal opportunity in gifted programs for all students, we must look at current definitions of giftedness and...
determine whether they are inclusionary or exclusionary. Stronge, Lynch and Smith (1987) recommend that schools understand the importance of students’ families and backgrounds, exhibit sensitivity to the values of different cultural groups with no imposition of one's own values, and examine the definitions and assessments used to determine giftedness.

The issue of assessment is the second issue which must be discussed. Traditional measures of giftedness used in the public schools include a variety of achievement and ability tests such as the Iowa Test of Basic Skills, Raven's Progressive Matrices, and Weschler's Intelligence Scale for Children Revised (WISC-R). Several researchers emphasize that these measures must be used with caution when identifying Native American students. Kirschenbaum (1988) stated that it should be recognized that Native American students often perform differently than White students, usually the normed group, on these measures. For example, Native American culture places a high value on slow, patient, well-considered responses. Since most achievement and ability tests are timed, and speed is rewarded, this traditional American value may lead to depressed scores.

Brescia and Fortune (1989) identified several other potential sources of error when using standardized testing to identify gifted Native Americans. These potential sources of error include language differences, differences in background experiences, and differences in the affective dispositions between groups of student test-takers. These differences can also lead to under-estimation of the number of gifted Native American students.

If we are indeed neglecting to identify students who are gifted by failing to use criteria which are "culturally fair", we are performing a great disservice. James Stronge, Cecelia Lynch and Clyde Smith (1987), stated, "Counselors and educators can surmise that disadvantaged, gifted students are a great source of intellectual talent in American society. This talent must be nurtured if these individuals are to enjoy the opportunity of personal fulfillment. If this opportunity is to be afforded,
educators must not only recognize the uniqueness of these individuals, but also value their potential contributions to society."

At least two instruments have been developed to specifically assess gifted Native American students. The **Gifted Attitudes Inventory for Navajos (GAIN)**, a self-report instrument, was developed by Judith Abbott-Vandergriff and the Dine Bi'oltta Research Institute, Farmington, NM (1983). Dr. Abbott-Vandergriff attempted to respond to the lack of appropriate measures for the identification of Navajo giftedness by development of a "uniquely Navajo definition of giftedness" and an assessment measure. The GAIN was developed through extensive interviews with Navajo families in Arizona and New Mexico. Analysis of the interviews and research resulted in the following definition of giftedness: "One who, by virtue of outstanding self-discipline and regard for others, is capable of providing for oneself and others both materially and spiritually." The GAIN was then designed to assess giftedness according to this definition. The GAIN is being explored at the Bureau of Indian Affairs school in which the authors are currently conducting research.

A second assessment measure, **The American Indian Gifted and Talented Assessment Model (AIGTAM)**, was developed by Stuart Tonemah and colleagues at American Indian Research and Development, Inc. (AIRD). The goal of this measure is appropriate assessment of gifted and talented Indian students. AIRD, Inc. also approached measurement development through extensive interviews with Native Americans, followed by a meta-analysis of responses. Classifications developed by the analysis include acquired skills, tribal/cultural understanding, personal/human qualities, and aesthetic abilities. Tonemah (1987) stated this measure has enjoyed "an almost universal acceptance from tribal people". Future goals of AIRD, Inc. include the development of an American Indian gifted and talented academy.

It appears that by an over-reliance on traditional measures
of intelligence to identify students for gifted programming, we are not serving all students as they deserve. As teachers, counselors, and psychometrists become more aware of alternatives, including the GAIN and AIGTAM, for providing fair assessment of Native American students, we may see increased numbers of Native American students receiving gifted services. Research on assessment measures designed to provide culturally-fair identification, performed by those who are aware of cultural differences and appreciative of diversity, may provide additional information on inter-cultural differences and result in a more equitable representative of gifted and talented Native Americans in gifted programs.

Much more attention and study on the issue of Native American identification for gifted programming is needed. State departments of education need to compile (and districts need to provide) more accurate records of representation. In the data provided by the Arizona State Department of Education, the total number of districts and the number of districts which reported information on identification are as follows:

<table>
<thead>
<tr>
<th>County</th>
<th>Total</th>
<th>Total Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Cochise</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td>Coconino</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Gila</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Graham</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Greenlee</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>LaPaz</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Maricopa</td>
<td>57</td>
<td>38</td>
</tr>
<tr>
<td>Mohave</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Navajo</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Pima</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Pinal</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Yavapai</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Yuma</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

Although only 55% of the districts reported, the data presented is considered a representative sample of state information as a whole according to the State Director of Gifted Education. In addition, when the authors requested similar
statistics in 1985 and 1992, the percentage of Native Americans students represented in gifted and talented programming was similar. Please note that no information on gifted programming is provided by Bureau of Indian Affairs schools or non-public schools to the Arizona State Department of Education, so the information gathered for this paper can be generalized only to Arizona public schools.

The majority of research on gifted and talented Native Americans is concentrated in one issue of the Journal of American Indian Education (October 1991, 31(1)). This would appear to suggest, as stated by Tonemah (1987), that in the American public educational system, only those directly affected, Indian educators, address concerns in Indian education.

The Federal Government has recently examined the state of affairs and educational needs of Native Americans in Indian Nations At Risk: An Educational Strategy for Action (1991). The Indian Nations At Risk Task Force established educational goals to improve the quality of instruction for Native American students. Goal 9 is a lofty goal: "By the year 2000 schools serving Native children will be restructured to effectively meet the academic, cultural, spiritual, and social needs of students for developing strong, healthy, self-sufficient communities." We feel that in part, effectively meeting the academic needs of Native American students includes improved identification and access to programming for gifted Native American children.

The authors' experience as public school teachers has made them aware of the potential and the problems associated with the identification of gifted Native American students. While much attention has been paid to the aspects of marginality in Native American culture, there is a lack of information on the "positives". With a research grant from Arizona State University, the authors have coordinated their efforts with two teachers of gifted education from a BIA school on the Navajo Reservation in Northeastern Arizona to survey parents of students identified as gifted on culturally appropriate instruments, including the GAIN. Parent interviews are also being conducted.
for a matched group of students who have been assessed on measures and been identified as within the normal range. The objective of this study is to further our knowledge about home and family environmental antecedents of precocity in a specific cultural context. Preliminary analysis demonstrates differences between gifted and non-gifted students related to traditional values and level of autonomy. Those identified as gifted appear to come from very traditional homes and are encouraged to engage in independent behaviors and responsibilities relatively early in life. Since these types of behaviors/abilities are not likely to be tapped through standard measures of intelligence, finding and using culturally compatible means of identification is even more critical.

It is well known that Arizona has one of the largest Native American populations in the United States. In the identification of Native American students, local, as well as nationwide improvement is necessary. The argument for including special programming for students identified as gifted and talented in school curriculum often includes the rationale that by enriching or accelerating the coursework of students in the area(s) of their giftedness, society will benefit by the contributions these individuals will later make. In a country as diverse as the United States, an improved effort should be made, with the public schools setting an example, of recognizing the strengths of diversity and the "gifts" of diverse children--specifically, Native American students in Arizona.
Abbott J.A. (1983). The Gifted Attitudes Inventory for Navajos: Directions for administering and scoring the GAIN & Technical supplement. Unpublished manuscript. The Dine Bi'olt'a Research Institute, Farmington, NM.


Figure 1a: Students Identified as Gifted at Year-end

<table>
<thead>
<tr>
<th>County</th>
<th>% of Total Students</th>
<th>% of Native American</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Cochise</td>
<td>5.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Coconino</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Gila</td>
<td>5.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Graham</td>
<td>7.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Maricopa</td>
<td>8.4</td>
<td>2.5</td>
</tr>
</tbody>
</table>

% of Total Students  % of Native American
Figure 1b: Students Identified as Gifted at Year-end

% of Total Students

Mohave 4.3
Navajo 6.5
Pima 3.5
Pinal 4.9
Yavapai 5.2
Yuma 4.3
Statewide 7.3

% of Native American

Mohave 2.4
Navajo 6
Pima 4.9
Pinal 1.4
Yavapai 4.7
Yuma 2.1
Statewide 3.4

County
Figure 2a: Native American Students in Total Population Compared to Native American Students in "Gifted" Population

<table>
<thead>
<tr>
<th>County</th>
<th>% of Total Students</th>
<th>% of &quot;Gifted&quot; Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apache</td>
<td>77.96</td>
<td>74.22</td>
</tr>
<tr>
<td>Cochise</td>
<td>35.89</td>
<td>12.44</td>
</tr>
<tr>
<td>Coconino</td>
<td>31.17</td>
<td>15.74</td>
</tr>
<tr>
<td>Gila</td>
<td>0.54</td>
<td>0</td>
</tr>
<tr>
<td>Graham</td>
<td>2.29</td>
<td>0.67</td>
</tr>
<tr>
<td>Maricopa</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- % of Total Students
- % of "Gifted" Students
Figure 2b: Native American Students in Total Population Compared to Native American Students in "Gifted" Population

County

Mohave Navajo Pima Pinal Yavapai Yuma Statewide

% of Total Students % of "Gifted" Students

47.8 26.1 4.44 3.6 8.54 2.3 1.36 0.63 1.33 0.6 6.6 3.05