



Serving American Indian Students

Participation in Accelerated Learning Opportunities

March 2004

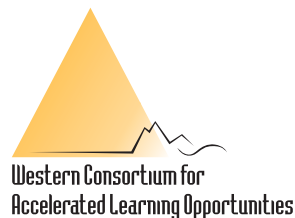
Suzanne Benally
Consultant

Serving American Indian Students

Participation in Accelerated Learning Opportunities

April 2004

Suzanne Benally
Consultant



Supported by a grant from the
Advanced Placement Incentive Program
within the U.S. Department of Education



◆◆◆ Western Interstate Commission for Higher Education

The Western Interstate Commission for Higher Education (WICHE) is a public, interstate agency established to promote and facilitate resource sharing, collaboration, and cooperative planning among the Western states and their colleges and universities. Member states are:

Alaska	Idaho	Oregon
Arizona	Montana	South Dakota
California	Nevada	Utah
Colorado	New Mexico	Washington
Hawaii	North Dakota	Wyoming

WICHE's broad objectives are to:

- ◆ Strengthen educational opportunities for students through expanded access to programs.
- ◆ Assist policymakers in dealing with higher education and human resource issues through research and analysis.
- ◆ Foster cooperative planning, especially that which targets the sharing of resources.

This publication was prepared by the Policy Analysis and Research unit, which is involved in the research, analysis, and reporting of information on public policy issues of concern in the WICHE states. While many individuals contributed to the production of this report, the views and opinions and any errors or omissions are solely the responsibility of the author.

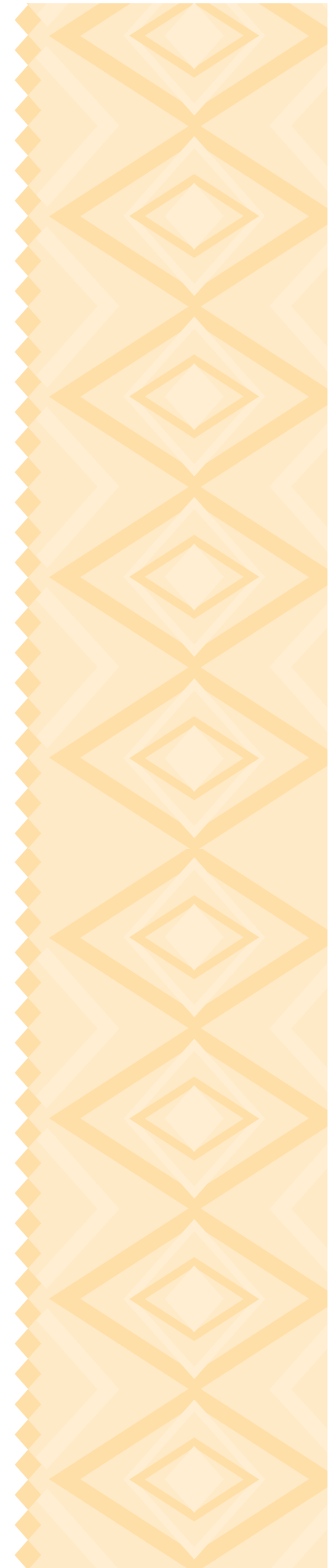
This report is available free of charge online at: <http://www.wiche.edu/Policy/WCALO/Publications.htm>.

For additional inquiries, please contact Caroline Hilk at (303) 541-0224 or chilk@wiche.edu.

Copyright © April 2004 by the
Western Interstate Commission for Higher Education
P. O. Box 9752
Boulder, Colorado 80301-9752
Telephone: (303) 541-0200
An Affirmative Action/Equal Opportunity Employer
Printed in the United States of America
Publication Number 2A349

◆◆◆ Table of Contents

Acknowledgements	v
Foreword	vii
Executive Summary	ix
Serving American Indian Students: Participation in Accelerated Learning Opportunities	1
Introduction	1
Rationale and Methodology	2
Findings	3
Access	3
Participation	4
Issues and Challenges	5
Policy Considerations	6
Conclusion	10
Discussion of Relevant Research	12
Background	12
Purpose and Method	12
Discussion of Research Topics	13
Educational Achievement and Outcomes	13
Native Language and Culture	14
Educational Resources	15
Educational Standards and Assessments	16
Conclusion	17
Endnotes	17
References	20



◆◆◆ Acknowledgements

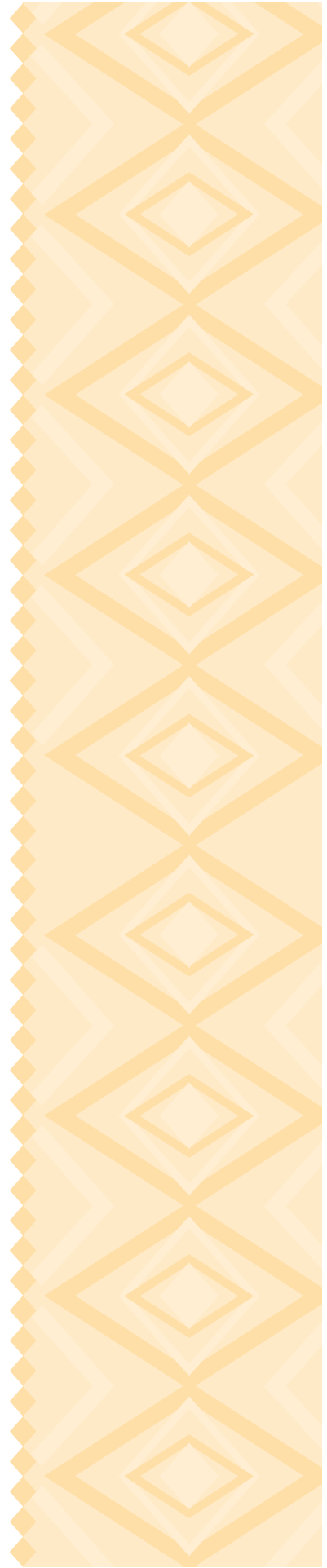
This report is the result of research, numerous conversations, and the generosity of people sharing their resources, perspectives, values, and beliefs. In this regard, appreciation is extended to the parents, students, and community leaders who lent their voices to this study, without whom we would not have been able to capture the voice of the American Indian communities. Additionally, the school personnel who agreed to be anonymously interviewed for this study were invaluable in providing further insight on their work and their institution's.

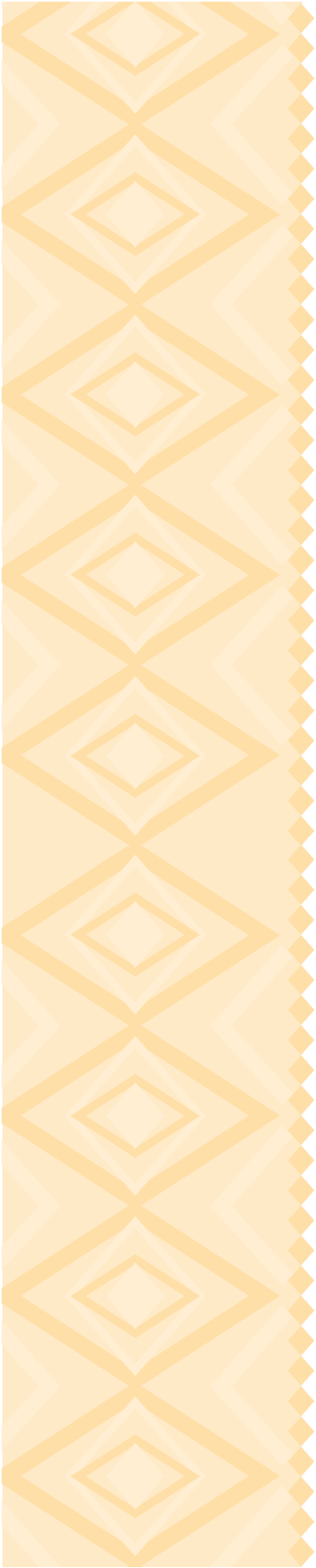
Appreciation is extended to the members of the *Western Consortium for Accelerated Learning Opportunities (WCALO)* Working Group for their commitment to this initiative and the information and resources they provided. Members of the WCALO Working Group are:

- ◆ Kathleen Mollohan, Advanced Placement administrator, Montana Office of Public Instruction.
- ◆ Peter Laing, former gifted education consultant, Arizona Department of Education.
- ◆ Tonya Drake, former assistant executive director, Academic & Student Affairs, Arizona Board of Regents.

I also extend sincere gratitude to the WICHE staff, including Cheryl Blanco, David Longanecker, Demarée Michelau, and Caroline Hilk, as they have been beyond supportive and patient. In addition, I would like to thank Candy Allen and Annie Finnigan for their exceptional work in editing and formatting this report. Finally, a special thank you goes to Eleanor Hubbard, a colleague, who provided invaluable assistance to me in the completion of this report.

Funding for WCALO is provided by the U.S. Department of Education's Advanced Placement Incentive Program (APIP), and special acknowledgement goes to Madeline Baggett, APIP project officer, for her interest and commitment to this study.





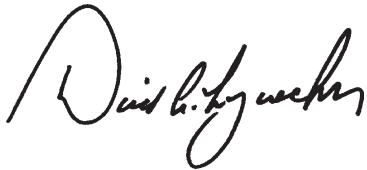
◆◆◆ Foreword

Accelerated learning opportunities, such as the College Board's Advanced Placement (AP) Program, International Baccalaureate (IB), and concurrent or dual enrollment programs, are designed to introduce high school students to a college curriculum that may allow them to earn college-level credit. Among the benefits of a challenging curriculum are increased academic preparation for college, fewer students enrolled in postsecondary remedial education, and a potential head start on earning college credit.

Too often, however, low-income and minority students are not afforded the same opportunities to enroll and succeed in these programs as their middle- or high-income majority counterparts. There tends to be a large disparity in access to and participation in academically challenging courses; although the percentage of students from ethnic minority groups participating in AP has risen in recent years, these groups still remain underrepresented. Among the ethnic minority groups most severely underrepresented in AP courses are American Indian students; their participation in AP courses is lower than any other ethnic minority group in the U.S.

This study is designed to address this critically important issue by examining American Indian student participation in AP programs and other accelerated learning opportunities and develop a context for understanding American Indian student access and participation in several Western states.

Sponsoring this study is the *Western Consortium for Accelerated Learning Opportunities (WCALO)*, a cooperative effort administered by the Colorado Department of Education and the Western Interstate Commission for Higher Education (WICHE). Funded by the U.S. Department of Education's Advanced Placement Incentive Program (APIP), WCALO is a partnership involving nine states — Arizona, Colorado, Hawaii, Idaho, Montana, New Mexico, Oregon, South Dakota, and Utah — whose purpose is to increase the successful participation of low-income students in advanced placement courses and examinations.



David E. Longanecker
Executive Director
Western Interstate Commission for Higher Education (WICHE)





◆◆◆ Executive Summary

Accelerated learning opportunities, such as the College Board's Advanced Placement (AP) Program, International Baccalaureate (IB), and concurrent or dual enrollment programs, expose high school students to a college curriculum that may allow them to earn college-level credit. Among the benefits of a challenging curriculum are increased academic preparation for college, fewer students enrolled in postsecondary remedial education, and a potential head start on earning college credit.

A disparity of access to and participation in accelerated learning opportunities, however, is seen across historically underrepresented ethnic minority and economically disadvantaged students, including American Indians. In fact, American Indian student access to and participation in AP courses is lower than that of any other ethnic minority group in the U.S.

As part of the Western Interstate Commission for Higher Education's (WICHE) project, *Western Consortium for Accelerated Learning Opportunities (WCALO)*, funded by the Advanced Placement Incentive Program (APIP) within the U.S. Department of Education, this study examines American Indian student participation in accelerated learning opportunities. Organized into two sections—a report on the findings with policy considerations and a discussion of relevant research—the study is designed to develop a context for understanding American Indian student access to and participation in accelerated learning programs in several Western states.

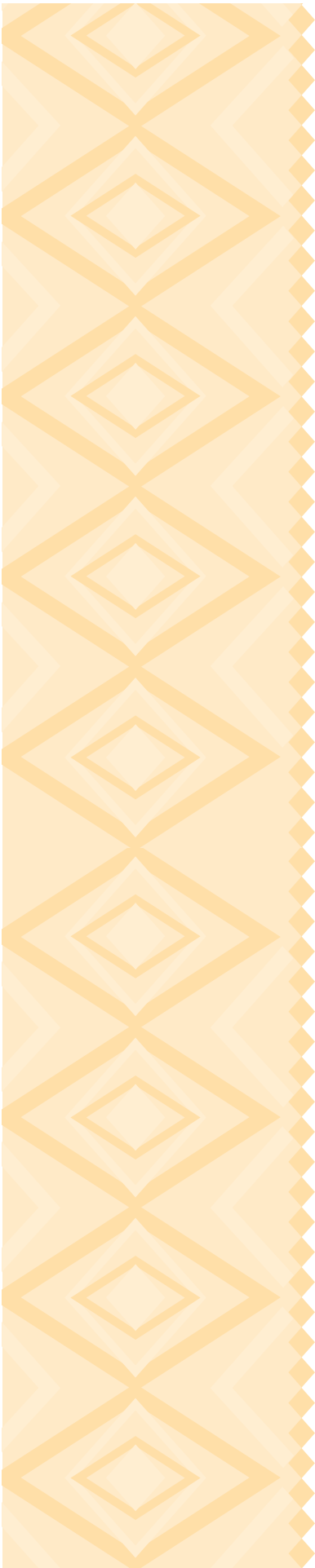
To determine whether American Indian students participate in accelerated learning opportunities, and how successfully, a study of seven states — Arizona, Colorado, New Mexico, Idaho, Oregon, Montana, and South Dakota — was conducted. The study was based primarily on site visits and interviews of students, teachers, counselors, parents, and community educators in 15 public high schools serving high proportions of American Indian students on or near Indian reservations. Of the schools selected, seven were on Indian reservations and eight were near Indian reservations. These schools served tribal communities that include Navajo, Hopi, Zuni, Ute, Pueblo, Apache, Northern Cheyenne, Crow, Flathead, Salish Kootenai, Blackfeet, and Assiniboine. The interviews centered on access, participation, and issues and challenges facing American Indian students.

The findings of this study are consistent with those of other studies conducted on American Indian education. Access to an accelerated curriculum, like AP courses, is minimally available to American Indian students; participation in AP is limited and fraught with failure; and American Indian communities are concerned about larger educational issues beyond the participation of their children in AP programs. This does not minimize the need for many accelerated learning opportunities, such as IB and concurrent or dual enrollment programs for American Indian students; but it emphasizes the importance of putting these findings into the larger context of American Indian education.

The following policy considerations are offered to assist schools and districts with building effective programs that produce high achievement with American Indian students leading to successful participation in AP and accelerated learning programs.

- ◆ To prepare all American Indian students to be high achievers, elementary, secondary, and college educators should articulate and implement clearly aligned learning goals that intentionally guide American Indian students and lead to high achievement.
- ◆ To encourage more parental involvement and better community-school relationships, state policy should support equitable partnerships between schools, parents, and the American Indian community.





- ◆ To better educate all children and integrate culturally based curriculum and cultural-learning models into school curriculum and programs, including accelerated learning opportunities, state policy should support opportunities for understanding AP curriculum within a holistic and cultural framework for learning.
- ◆ To profile the actual experiences of American Indian students in diverse Indian community settings, states should collect disaggregated data to monitor disparity among all student groups for entry and completion of AP courses and generate complementary data, such as case studies or portfolios.
- ◆ To strengthen teaching and learning leading to high achievement among American Indian students and the closing of the achievement gap, states should develop and support ongoing professional development for all teachers.
- ◆ To help American Indian students achieve at high levels, states should expand incentives designed to increase the number of American Indian students in AP and accelerated learning programs, strengthen programs that support and build capacity for teachers teaching in AP programs, and develop data tracking and data collection systems that provide benchmarks for improvement in these areas.

The second part of the report—the discussion of relevant research—examines the current body of research on American Indian student participation in accelerated learning programs and is organized around four major research topics on American Indian and Alaska Native education: educational achievement and outcomes; Native language and culture; educational resources; and educational standards and assessments. Since virtually no research literature exists specific to the topic of American Indian student participation in AP programs, this discussion examines American Indian education as it relates to American Indian and Alaska Native student achievement.

American Indian education is an important issue in the West, where there are a majority of Indian reservations that have significant political ties to federal and state governments. In developing initiatives to strengthen AP and accelerated learning programs, attention should be given to the fundamental issues and concerns raised in this study.

◆◆◆ Introduction

This study examines American Indian student participation in Advanced Placement (AP) programs and other accelerated learning opportunities.¹ It is designed to develop a context for understanding American Indian student access to and participation in AP programs in several Western states. To conduct a study on any aspect of American Indian education requires an understanding of its unique history, its specific context, and the complexity of its political, social, economic, and cultural issues.

The history and experience of American Indian and Alaska Native education has been tied to a long history of federal policy for American Indian and Alaska Native peoples.² As educators and policymakers grapple with inequities in American Indian education, they must recognize and consider the many issues faced by American Indian peoples and address their concerns, recommendations, and involvement. Only in recent history have the voices of American Indian people been recognized as legitimate in defining American Indian education. As a result, American Indian education is no longer defined through a cultural-deficit model in which culture is a barrier, but rather through a model in which culture is seen as a strength and an asset.

Maintaining a cultural identity and preserving the cultures of American Indian tribes are highly important, as each generation changes, becoming more highly acculturated and assimilated to mainstream American culture. American Indian people and their nations acknowledge these transitions and understand the value of education, maintaining goals for their children to graduate from high school and succeed in college. Tribal nations recognize the need for future generations of leaders who are able to live and work in mainstream society while also contributing to building and strengthening their tribal communities, meeting community needs for teachers, lawyers, doctors, engineers, scientists, and other professionals.

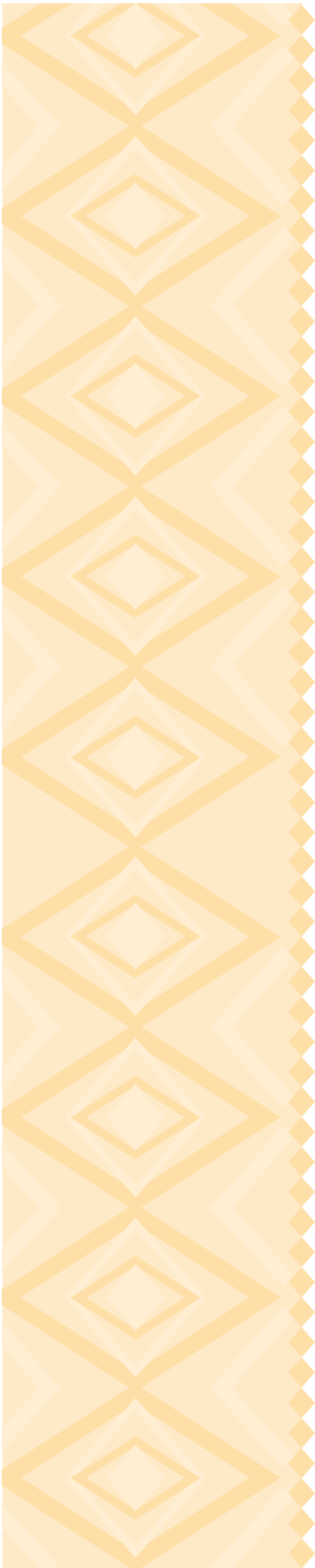
The discussion of relevant research in the second part of this report generally indicates a severe lack of research and data about American Indian education. Increasing numbers of American Indian educators, however, are conducting research studies and developing strong recommendations for American Indian education. Several themes, reflecting priorities and key issues, consistently emerge in more recent research reports conducted by American Indian educators. They include the following.

- ◆ Educational achievement of American Indian students needs to be strengthened, with outcomes clearly defined to assure academic achievement and attainment and to reflect the culturally based educational goals of the tribal communities from which students come.
- ◆ Integrating American Indian language and culture to strengthen educational achievement is necessary and highly important to American Indian people for cultural survival.
- ◆ Adequate and appropriate educational resources are needed to create dynamic learning environments for American Indian students. Resources range from qualified teachers and transportation to challenging curricula and adequate classroom materials.
- ◆ Standards-based reform and the changes taking place in schools significantly impact American Indian students and should be used to improve their education and hold schools accountable for providing the programs and support necessary for American Indian children to achieve.

As American Indian educators and researchers increasingly contribute to the field of American Indian education, their concerns will be addressed and recommendations followed. It is important to understand that American Indian education is unique and different than mainstream American education. The status borne out of early treaties, U.S. federal Indian policies, and the self-determination and cultural survival of American Indians

Serving American Indian Students: Participation in Accelerated Learning Opportunities





has to be recognized and considered. Any educational movement or initiative that may impact American Indian education requires critical examination of its intention and involvement of American Indian people in the process. Much more current research and data collection is needed to inform American Indian educational policy and practice. The orientation of research on American Indian education should be based on success and self-determination. As schools and states build educational programs that strengthen Native student educational success, the complex context has to be considered. More research is certainly needed at the secondary level to better reflect the success of American Indian high school graduates and their postsecondary attainment.

This study examines one segment of American Indian education that pertains to the participation of students in AP programs. Although this report offers valuable information on the issues and unique circumstances facing American Indian students in AP programs, it is important to keep in mind that the limited scope of this review also limits its applicability. For example, this study focuses on American Indian students in the lower 48 states; thus its findings may not be relevant to Alaska Native students, particularly given the comparatively remote communities in which many of them live. Furthermore, this study focuses on formal Advanced Placement, which means that the efficacy for American Indian students of other accelerated learning opportunities, such as the International Baccalaureate and concurrent or dual enrollment programs, is not examined. While inferences can logically be drawn, and often are, it should be kept in mind that these may or may not be borne out in true experience.

◆◆◆ Rationale and Methodology

The purpose of the College Board's AP Program is to introduce students to a college curriculum that allows them to earn college-level credit while still in high school through AP courses and exams that have a high academic standard. AP courses are intended to improve students' skills and build confidence in their ability to succeed in college. The disparity of access to and participation in more academically challenging courses, like AP, is seen across historically underrepresented ethnic minority student populations, including American Indian and economically disadvantaged students. The College Board reports that in 2002 the percentage of students from ethnic minority groups has increased; but these groups still remain underrepresented in AP courses.³

American Indian student access to and participation in AP courses is lower than that of any other ethnic minority group in the U.S. According to the College Board's data of minority ethnic groups taking AP exams from 1979 to 2002, less than 1 percent of American Indian students take AP exams.⁴ There are between 300,000 and 400,000 American Indian and Alaska Native children of school age. Of these children, between 85 and 90 percent are educated in public schools.⁵ Yet these students, on average, tend to take less rigorous classes, are less likely to graduate from high school, and if they do graduate are less likely to go on to college. Less than 10 percent of American Indian and Alaska Native students take college preparatory math, and 30 percent take no math at all. Almost one-third do not enroll in a science course. Only 60 percent of American Indians graduate from high school, compared to 75 percent in the America population as a whole. And only 17 percent of American Indians and Alaska Natives enroll in college, less than half the national average. As a result, many opportunities for college preparation have been closed to American Indian students, who often are marked for remediation programs rather than for mainstream classes, let alone advanced ones.⁶

To determine whether American Indian students participate in accelerated learning opportunities, and how successfully, a study of seven states — Arizona, Colorado, New Mexico, Idaho, Oregon, Montana, and South Dakota — was conducted.

Although a general body of research indicates disparity in access and participation of minority students and economically disadvantaged students in AP courses, there is limited research specifically on American Indian student participation. As a result, this study was conducted primarily through site visits and interviews. Students, teachers, counselors, parents, and community educators in 15 public high schools serving high proportions of American Indian students on or near Indian reservations were interviewed. Since at the time of this study most of the states were not systematically collecting comprehensive or disaggregated data on AP programs in high schools, high schools were identified by their location on or near Indian reservations or via state or school personnel, including American Indian education specialists and American Indian Advisory Committee members. Of the schools selected, seven were on Indian reservations and eight were near Indian reservations and served a high number of American Indian students. These schools served tribal communities that include Navajo, Hopi, Zuni, Ute, Pueblo, Apache, Northern Cheyenne, Crow, Flathead, Salish Kootenai, Blackfeet, and Assiniboine.

The interviews were all conversations and focused on the following questions:

- ◆ **Access** — Does your school offer AP courses and opportunities to take the AP tests?
- ◆ **Participation** — How many American Indian students take AP courses and tests? How are students recruited into these courses? What are the academic requirements needed to take AP courses? How successful are students in completing and passing the courses and taking the tests? Does taking AP courses make a difference to a student — how so or why not?
- ◆ **Issues and Challenges** — What factors challenge or become barriers to successful participation in AP programs (socioeconomic, cultural)? What factors are supportive?

Cultural sensitivity to different communication approaches and the awareness of skepticism of yet another person doing a study on Indian people was important to the process. The findings reflect both the quantitative dimensions and the qualitative nature of this study.

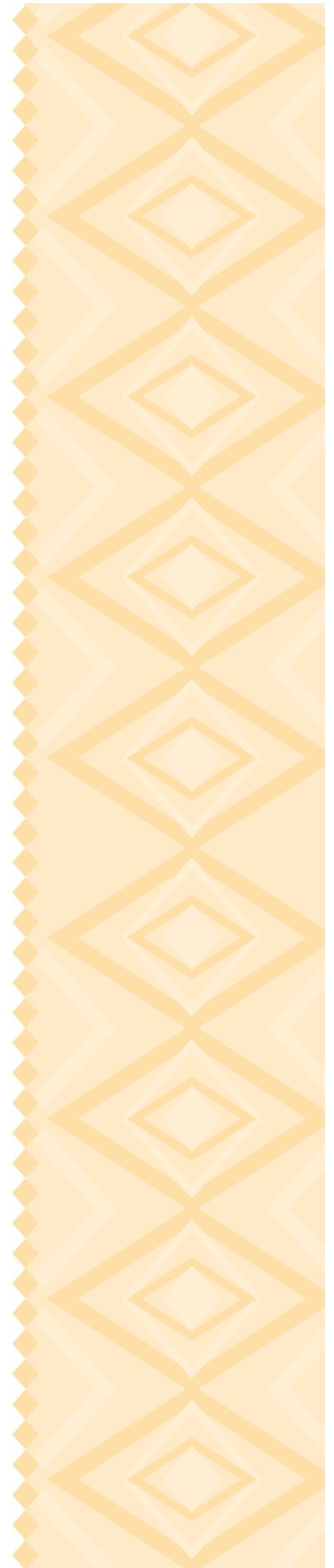
Additional information collected by the College Board on AP exams taken by race and ethnicity in each state and data collected from state departments of education and the state higher education executive offices were used to provide a broader state context and regional profile for the study.

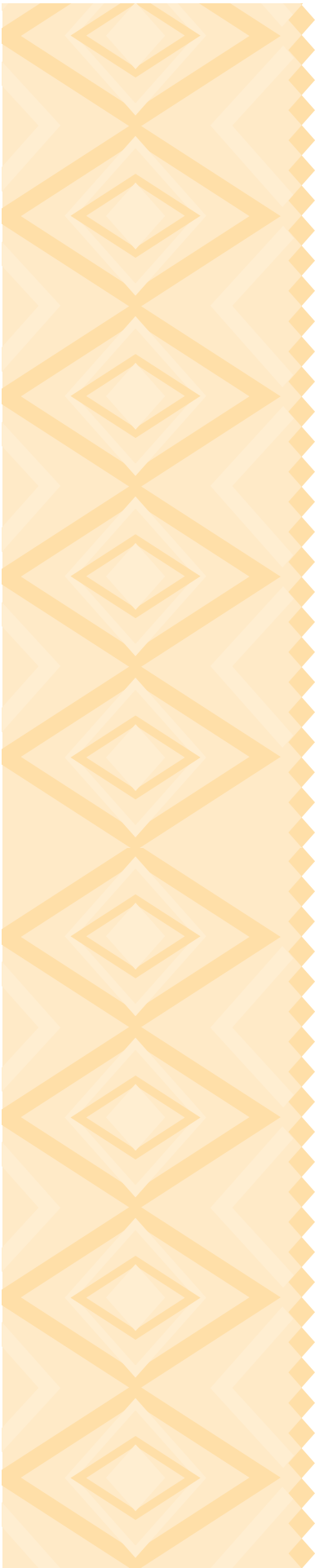
◆◆◆ Findings

The findings of this study are consistent with those of other studies conducted on American Indian education. Access to AP courses is minimally available to American Indian students; participation in AP is limited and fraught with failure; and American Indian communities are concerned about larger educational issues beyond the participation of their children in AP programs. This does not minimize the need for many accelerated learning opportunities, such as concurrent or dual enrollment and IB programs for American Indian students; but it emphasizes the importance of putting these findings into the larger context of American Indian education.

◆ Access

Schools serving high populations of American Indian students offer either no AP programs or courses or a very limited number of AP courses. In the rare instances where a full AP program is offered, very few American Indian students participate. Since there are almost no AP courses available in schools serving high populations of American Indian students, it is not surprising that very few American Indian students participate in these courses. Additionally, many access issues for American Indian students are tied to the comprehensive





issues concerning all of American Indian education (see the Issues and Challenges section below for a full discussion). The aspirations of high-achieving American Indian students, like those of low-income and rural students in general, are unfulfilled, usually due to the few educational resources available to them. In addition, for students who do have access to AP courses, family educational resources, including the level of education of parents, can contribute to lowered expectations.

Schools that participate in state initiatives to strengthen AP programs tend to have higher than usual numbers of American Indian students taking AP courses. Although no exemplary programs serving American Indian students were identified, some states participating in initiatives like the WCALO project have been able to increase the number of schools offering AP programs and to strengthen existing AP programs. For example, New Mexico is developing a comprehensive AP initiative that is impacting programs in schools serving American Indian students. Although the numbers of participating students have not reached parity, they do represent an increase. The state has developed AP data tracking and collection systems that provide needed information to address issues of access. New Mexico's efforts are significant, given that most states do not collect disaggregated data on high school AP programs.

◆ Participation

The number of American Indian students taking AP courses is disproportionately low compared to White students. American Indian students generally are not academically prepared to take AP courses. Even those who are better prepared academically often lack confidence in their ability to succeed. Many American Indian students in AP courses indicate that the classes are too difficult for them, and they are concerned about failing. A majority of American Indian students taking AP courses either do not take the exam or do not pass it. Teachers indicated that 80 percent or more of the students who take the exam fail (this number is not statistically verifiable).

There are a few exceptions to these findings, however. The students who are performing well in AP classes feel that they are being challenged. In a few exceptional cases, students took AP courses, passed the exams, and used the credits for college entrance. These exceptional students were academically prepared, understood how AP courses benefited their college entry, and had strong parental support. Those American Indian students who succeeded and often excelled in AP courses demonstrated that success required not only individual ability and persistence but also the development of school and family resources.

Some students who are enrolled in AP courses feel that they have been recommended for these classes because they are socially outgoing and participate in extracurricular activities rather than because of their academic performance. These students do not perform well in AP. However, the problem is systemic rather than individual — the system seems to set these students up for failure — and it reflects the need for professional development, greater academic expectations, well-developed requirements, and better student academic preparation.

Summer enrichment programs that take students away from their local communities have played a major role in providing academic support and opportunities for them to experience a college campus environment. Although the academic quality of these programs varies, they have served a significant purpose. High-achieving students tend to participate in summer academic programs like Indian Upward Bound, math and science enrichment camps sponsored by colleges and universities, and the American Indian Science and Engineering Society (AISES). Both parents and students believe that any summer academic opportunity is key to their continued academic success, especially for students who are in schools with few educational resources.

◆ Issues and Challenges

In addition to concerns regarding access and participation, there were many other issues and challenges raised by those interviewed for this study. They include the following.

◆ *Parental Involvement:* Parents are concerned about how well their students are doing in AP courses, honors classes, or gifted programs but often are given few opportunities to express that concern or to be more actively involved in their children's learning and in schools. Both professional educators and the parents themselves understand that a more active role for parents in supporting students in AP courses is crucial to student success. Parents of American Indian students do not feel that they are being included in decision-making about their students or in how the school accommodates their children.

◆ *College Orientation:* Orientation for parents and students to AP programs, college requirements, and admission processes is woefully lacking. Parents need more information about college preparation and the admission process, particularly when ACT or SAT exams will be given. Most importantly, parents must become equal partners with the school in setting educational goals, in tracking student progress, and in creating an environment where student success is expected.

◆ *Availability and Quality of Gifted Programs:* Parents are concerned about the availability and quality of gifted programs, as well as other accelerated learning programs for gifted students. Parents recognize that high achieving students' educational needs are not being adequately met. Parents assume that AP courses are for "gifted" students. The term "gifted" in this context is used as an umbrella term to mean any high-achieving student and may not be consistent with how the term is used in educational communities. Whether the language is technically accurate or not, what the American Indian community is concerned with is improving K-12 education for all children as well as gifted students.

◆ *Early Opportunities:* College preparatory opportunities and courses for all students must occur early in a student's education. Emphasis on college does not occur until students are juniors or seniors and usually occurs about the time that they begin thinking about taking the ACT and SAT exams—too late for intervention or increased preparation.

◆ *Cultural Sustainability:* Parents, tribal leaders, and community members all are concerned with the loss of language and culture among young American Indian students. This is a major concern among parents and community members, even in schools where AP programs are more successful. In some areas, this is a highly contentious issue dividing schools and communities.

◆ *Community-Based Problems:* Parents and tribal leaders are concerned about community-based problems, such as drugs and other substance abuse, alcoholism, and youth gangs. All of these problems interfere with quality education and good community and family life.

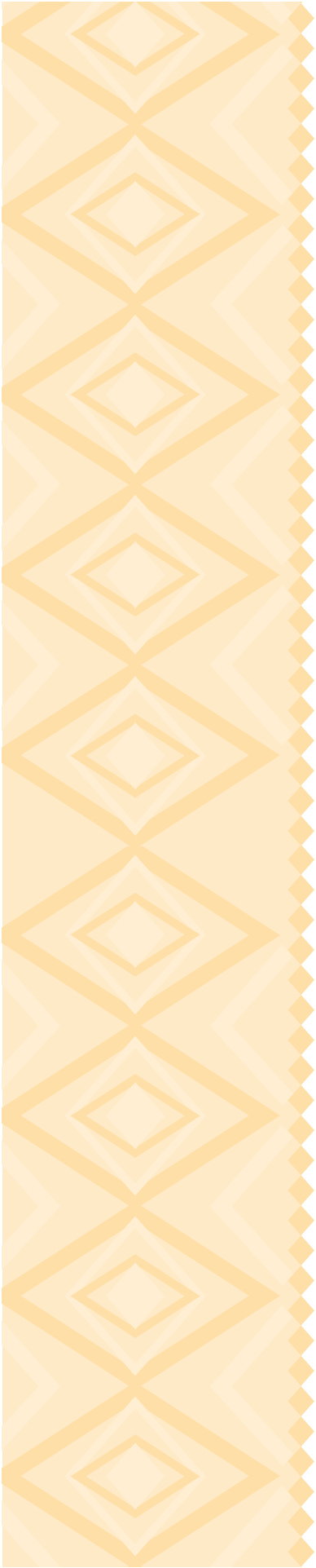
◆ *Interrelated Issues:* Both parents and tribal educators are concerned about student achievement, health and wellness issues, disabilities, school environment, and quality education for all American Indian students. They feel that these issues must be addressed comprehensively to support student achievement and targeted education programs such as AP.

◆ *Teacher Preparation:* The quality of teacher preparation to teach AP courses and the lack of subject-area specialists impact AP course offerings, instruction, and student achievement.

◆ *School Accountability:* All public schools serving American Indian students need to be held more accountable for dropout and success rates of these students. They also must be able to track their American Indian students' progress in postsecondary education.

◆ *Negative Stereotyping:* Negative stereotyping of American Indians results in low expectations for students in some communities and schools. This has serious consequences for American Indian students' self-esteem and learning. An extensive discussion of the negative social





impact of prejudice, discrimination, and White privilege on American Indian student success is beyond the scope of this study, but it can not be ignored either. Other problems in the schools are White curricular ethnocentrism, low school responsiveness to American Indian community involvement, poor teaching techniques, and lack of school accountability. Educational discrimination in the form of cultural bias in standards and testing are part of the problem.

The failure of schools to proactively reach out to involve the American Indian community in enhancing college readiness, poor teaching from often ill-prepared teachers, and the lack of school accountability all contribute to a sour atmosphere that hampers American Indian students' ability to succeed in accelerated learning programs, such as that provided through the AP program.

◆◆◆ Policy Considerations

In this study, unwavering commitment to support successful American Indian student achievement and to close the achievement gap between American Indian students and other populations of students is a priority. The following six considerations are offered to assist schools and districts with building effective programs that result in high achievement among American Indian students leading to successful participation in AP and accelerated learning programs.

To prepare all American Indian students to be high achievers, elementary, secondary, and college educators should articulate and implement clearly aligned learning goals that intentionally guide American Indian students and lead to high achievement.

A major reason American Indian students do not participate in AP courses and/or take AP exams is poor academic preparation, beginning early in elementary school and becoming exacerbated as students progress through middle and high school. Unless comprehensive action that involves a coordinated effort at all educational levels is taken, expecting increased student participation in AP programs is unrealistic. Recognizing the unique educational needs of American Indian students, state-based AP initiatives could become major catalysts in advocating higher quality education, school/state accountability, and improved student performance. Aligning these activities to ensure student success, however, will require the collaboration of many levels of educators, including state departments of education, state higher education executive offices, school districts, and colleges and universities.

Possible strategies include:

- ◆ Prepare and support all students to achieve at high levels early in elementary and middle school through exposure to advanced curriculum and motivational frameworks for learning.
- ◆ Ensure that American Indian students gain successful levels of competencies in basic academic subject areas (i.e., mathematics, reading, and writing) beginning in elementary grades and continuing through middle and high school.
- ◆ Coordinate continuous conversations and planning between elementary and high school teachers and college faculty and administrators at all levels, leading to high achievement for American Indian students.

To encourage more parental involvement and better community-school relationships, state policy should support equitable partnerships between schools, parents, and the American Indian community.

Parents' involvement in their children's education strengthens student performance, schools,

and ultimately communities. Parents understand the need to be involved in schools and want to be; however, little opportunity is provided for their involvement in academic and other school policy matters. Parental participation often takes the form of parent committees who advise principals and schools but have no power for decision and policymaking. American Indian parents are concerned and assertive about school policy issues and academic opportunities for their children. They provide links to other community-based entities and to tribal education. Developing processes for parents to be involved at the schools and as members of boards of education is critical.

A primary role parents have is to motivate and support their children academically. Parents who do not have high school or college-level education do not always have the educational resources to assist their students with homework or give them accurate advice. Often these parents are unaware of the academic requirements for high school graduation and college preparation or the process for applying to college, including applying for financial aid. Strengthening American Indian student participation in AP programs requires strengthening parents' roles and their capacity to academically support their children. Letting parents know about the role that AP courses and tests have in college preparation is important. States could provide funding opportunities and incentives for the development of programs to support creative parent-school partnerships and initiatives related to AP programs and other college preparatory efforts.

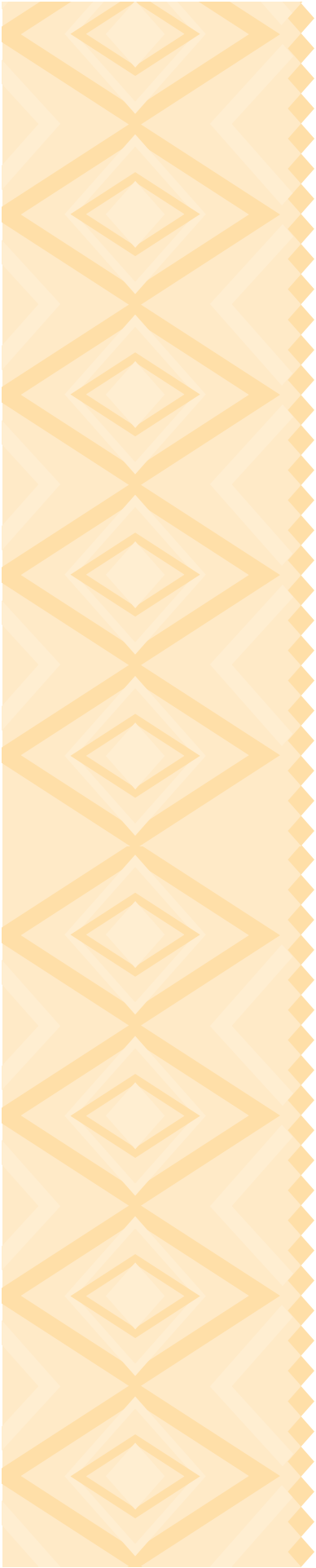
Possible strategies include:

- ◆ Develop ways to involve families at every level of the public school and provide opportunities for them to actively engage the school community.
- ◆ Involve parent representatives in school policy meetings regarding academics and AP, as well as other accelerated learning opportunities.
- ◆ Enable equitable partnerships between schools and parents in setting educational goals, in tracking student progress, and creating a school and home environment where student success is expected.
- ◆ Develop programs aimed at strengthening parents' ability to support students' educational development and to motivate them.
- ◆ Provide well-planned orientations to AP programs and other accelerated learning opportunities for parents and students.
- ◆ Provide information to parents and students about college requirements and admission processes early in students' high school experience. Dates to take ACT and SAT exams should be publicized throughout the community.

To better educate all children and integrate culturally based curriculum and cultural-learning models into school curriculum and programs, including accelerated learning opportunities, state policy should support opportunities for understanding AP curriculum within a holistic and cultural framework for learning.

Many of the issues and concerns that parents and tribal leaders expressed could and should be addressed within a holistic approach to accelerated learning. To recap, parents and tribal leaders want all of their children to be academically challenged; they want their "gifted" children to receive special learning opportunities; they want the problems of the American Indian student, including substance abuse and youth gangs, to be addressed in the schools; and most importantly, they want the schools to assist them in teaching their children American Indian culture and languages. This is a huge task, including evaluating curriculum for White ethnocentrism and creating new curriculum or rewriting it with more culturally appropriate courses. This task requires vision, expertise, and hard work. Local schools cannot do this task alone, nor can American Indian educators. American Indian and other professional educators need to engage in ongoing conversations with local and regional





Indian organizations in order to create regular and accelerated learning curricula that meet the needs of Indian students. This is an enormous task, given the diversity of Indian cultures.

Possible strategies include:

- ◆ Develop values for achievement that reflect an integration of American Indian cultural values and mainstream American educational success.
- ◆ Develop relevancy between academic subject matter, cultural and community values, postsecondary educational opportunities, and career development.
- ◆ Work with the American Indian communities for assistance in integrating cultural content, community relevance and service, and tribal values and practices.
- ◆ Evaluate curricular offerings for mainstream American ethnocentrism and work to create a more culturally significant curriculum for American Indian students.
- ◆ Create opportunities whereby American Indian and White professional educators work together to make changes in curriculum used by schools with predominant American Indian populations.

To profile the actual experiences of American Indian students in diverse Indian community settings, states should collect disaggregated data to monitor disparity among all student groups for entry and completion of AP courses and generate complementary data, such as case studies or portfolios.

Developing data systems and collecting data, as well as developing complementary forms of assessment, such as case studies or portfolios, are essential tasks in support of this goal. Using multiple, alternative forms of assessment better assists in capturing and interpreting the complexity and diversity of American Indian education. Building a culture of evidence and developing a comprehensive understanding of the experiences of American Indian students in schools and their participation in educational programs like the AP program will better inform states and schools and lead to responsive systemic change. These types of assessment can also be used to leverage school improvement and school reform in the climate of the federal No Child Left Behind Act.

Possible strategies include:

- ◆ Systematically identify and use multiple assessments that evaluate student skills and experiences in various ways and that do not reflect cultural bias.
- ◆ Develop data tracking and data collection systems that provide good information about American Indian participation in accelerated learning programs.
- ◆ Track dropout and success rates for American Indian students, as well as progress in postsecondary education. Report these rates to the community on a regular basis.
- ◆ Acknowledge and celebrate student achievements and school success in the community.

To strengthen teaching and learning leading to high achievement among American Indian students and the closing of the achievement gap, states should develop and support ongoing professional development for all teachers.

Strengthening teaching and learning is key to the success of American Indian education in several capacities. To teach American Indian students, teachers must be knowledgeable in their subject area, highly interdisciplinary, motivational, cross-culturally competent, able to develop relationships with students and parents, and have an understanding of the communities within which they work. They must be able to work with a range of learners and learning styles, language differences, cultural differences, and learning disabilities, as well as to deal with problems such as alcohol and drug abuse, as their effects spill into the classroom. The demands on teachers require continual professional development and in-

service time to strengthen teaching and service. Problems on American Indian reservations and in rural areas with teacher shortages, incompetent teachers, a lack of teachers with sufficient content knowledge, unmotivated teachers, racism, and other factors all impact education in general and the possibility of developing accelerated learning programs in particular. Preparing teachers to work on American Indian reservations or in schools near reservations with American Indian student populations should be a state priority and should be reflected in the curriculum of schools of education and the required licensure to teach.

Possible strategies include:

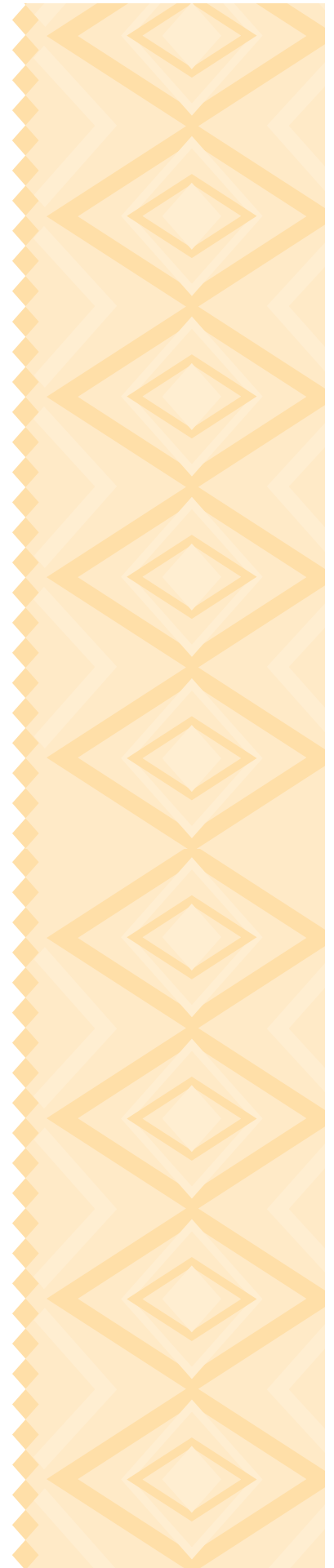
- ◆ Provide professional development so that teachers can strengthen their subject matter knowledge.
- ◆ Provide professional development that prepares teachers for working with American Indian students and with communities and cultures other than their own.
- ◆ Provide professional development that strengthens teachers' knowledge and competencies in pedagogical frameworks for motivation, learning, and assessment.
- ◆ Recognize the importance of dynamic teachers and counselors who can support school-family-community relations and who will encourage students to participate in summer academic and college preparatory work.

To help American Indian students achieve at high levels, states should expand incentives designed to increase the number of American Indian students in AP and accelerated learning programs, strengthen programs that support and build capacity for teachers teaching in AP programs, and develop data tracking and data collection systems that provide benchmarks for improvement in these areas.

Although the argument is being made for addressing American Indian education in general, there still exists a need to increase American Indian student participation in AP programs. States participating in WCALO are beginning to address many of the issues raised around access, participation, and capacity building in schools and states. These efforts will impact American Indian participation, but ultimately, an effort targeted to the particular needs of American Indian education will be required.

Possible strategies include:

- ◆ Expand statewide incentives designed to increase the number of American Indian students taking AP courses and exams.
- ◆ Expand statewide initiatives specifically designed to strengthen teaching capacity for teaching AP courses and working with American Indian students.
- ◆ Target high schools on and off reservations serving American Indian students to develop pre-AP and AP programs.
- ◆ Identify high schools serving high populations of American Indian students to develop and pilot unique and creative pre-AP and AP programs.
- ◆ Improve recruitment and follow-up of American Indian students who attend summer enrichment programs and connect them to accelerated learning programs.





◆◆◆ Conclusion

The participation of American Indian students in accelerated learning programs like the AP program remains disheartening, even more so as one considers the larger historical and contemporary context of American Indian education. The many challenges facing American Indian people and Native tribes are increasing at alarming rates as the complexities of the world increase. For many American Indian people, education is seen as critical to both cultural and economic survival. In order to fully participate in and benefit from American education, American Indian people have to be highly involved in defining and designing education from planning and policy development to curriculum development and teaching. The idea that good schools and good teaching make the difference may not fully address the problems of American Indian students. Rather, intentional initiatives and deliberately focused efforts are required to meet the unique educational needs of this population.

This study focusing on the participation of American Indian students in AP programs was framed around three major concerns: access; participation; and issues and challenges. The summary of findings supports the fact that there are unique educational issues in American Indian education, but also offers insight in addressing access and participation in AP programs.

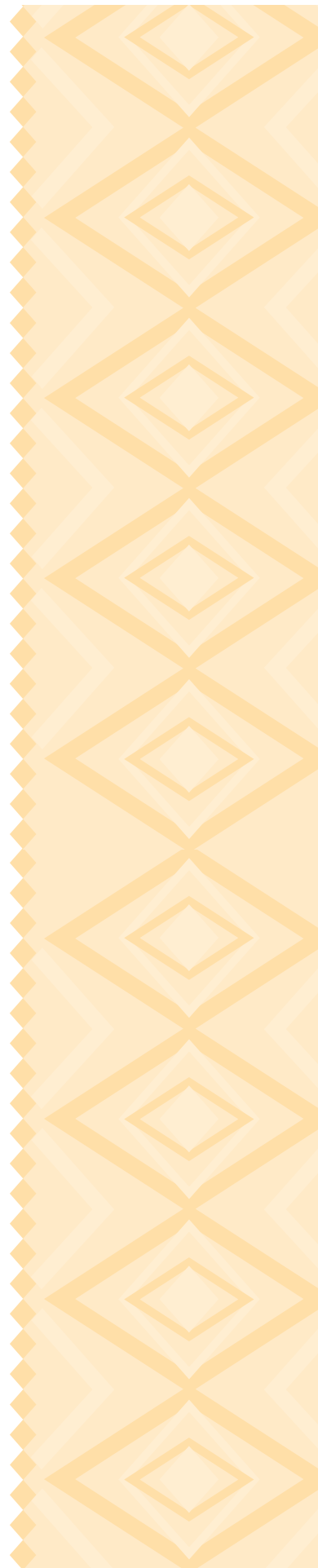
Access to quality AP programs and academic preparation is a problem. The number of American Indian students taking AP courses is disproportionately low compared to the number of White students. Furthermore, American Indian students generally are not academically prepared to take AP courses. Preparation needs to be addressed early, in elementary and middle school, where attention to academic preparation should be deliberate and designed to track all students into high-potential learning programs. The quality of AP programs and the quality of teaching impacts access as well as successful participation. Lack of competent teachers in subject areas, as well as the lack of resources, support, and infrastructure, all affect access. Parents have few ways to be involved in schools and limited capacity to assist their children's education. Yet parents are highly concerned about education and want to be involved. They see education as a holistic process that includes family, culture, and community health. The strong belief that education should serve to strengthen the community is often at odds with the American values of education, which promote individual success and competition. Parents are aware that, to be involved, they need more information about and resources on schools and educational practices; at the same time they feel they have much to offer as well.

Language and culture are critical to the education of American Indian students. Every tribal community views this issue as cultural survival and sees the role of schools as extremely important in assisting cultural sustainability. American schools typically work to assimilate Indian children into American culture and have little relevancy to native culture and community. Education is critical to Indian people; but it needs to serve the dual purpose of equipping students for survival in mainstream society and helping them maintain their cultural identity.

Racism and biased stereotypes about American Indian people are still prevalent. Misperceptions about American Indian families and communities lead to self-esteem and identity issues, a sense of failure, a lack of strong expectations, and other problems. Schools cannot assume that times are better for Indian people and children when many images, movies, mascots, textbooks, social attitudes, and beliefs maintain racist views of Indian people. Strong efforts to counteract racism and dispel stereotypes need to occur regularly.

Finally, school accountability processes that evaluate school performance and outcomes in educating American Indian students are critical. School accountability should include accountability to the communities that the schools serve. The policy trends in mainstream American education can provide an opportunity to improve American Indian education if they deliberately target the unique concerns of American Indian education. Too many policies and task force efforts on American Indian education have come and gone with no comprehensive results.

American Indian education is a very important issue in the Western states, where there are a majority of Indian reservations that have significant political ties to federal and state governments. Very often, the American Indian student population is considered so small that it is grouped with other populations, usually Hispanics. This practice of aggregated data does not provide the type of evidence needed for an in-depth study of American Indian education, nor does it fully tell the story. In developing initiatives to strengthen AP programs and accelerated learning opportunities, and when creating other educational improvement efforts as well, attention has to be given to the fundamental issues and concerns raised in this study.



◆◆◆ Background

Developing a research agenda for American Indian and Alaska Native education is a complex and challenging process. While such an agenda is critically needed to improve educational achievement, it remains subjected to a long history of federal Indian education policy. Educational research has been “on” American Indian education rather than “for” American Indian education, creating a discourse that focuses on a cultural-deficit model and on the failure to succeed or assimilate in the dominant society. Two recent reports call for an active American Indian and Alaska Native education research agenda that addresses American Indian education issues and moves research into practice: they are *American Indian and Alaska Native Education Research Agenda*, commissioned by a federal interagency task force under the U.S. Department of Education; and *Developing a New Research Agenda for American Indian and Alaska Native Education*, prepared by a group of Indian educators at a research conference sponsored by the Catching the Dream organization.⁷

Both reports identify similar priority research topics. They reflect the needs, concerns and voices of the diversity of American Indian and Alaska Native tribes, communities, and parents. These groups are demanding quality education and the successful participation of their children in the educational process, as well as an education that contributes to strengthening their cultural lives and communities. The multiple issues that must be understood and addressed by schools in order to meet these challenges are complex. Within this complexity, the participation of American Indian students in Advanced Placement (AP) programs, or lack of it, can be examined.

◆◆◆ Purpose and Method

The purpose of this discussion of relevant literature is to examine the current body of research on American Indian student participation in accelerated learning programs, such as AP, and the social and cultural factors affecting their participation. Virtually no research literature exists specific to the topic of American Indian student participation in AP programs, so a more comprehensive discussion of American Indian education is examined as it relates to American Indian and Alaska Native student achievement.

The discussion is narrowed to the research literature that supports the issues and concerns in the two educational research agenda reports mentioned above. These reports reflect American Indian and Alaska Native people determining their educational needs and calling for research and educational strategies that will be effective in integrating cultural strengths with academics in order to improve student academic preparation. American Indian and Alaska Native researchers stress the importance of better national research and data collection that moves from a deficit model to a success model; they also emphasize the notion that academic preparation of American Indian and Alaska Native students for postsecondary attainment should consider their unique educational status and history.

This discussion of relevant research is organized around four major research topics on American Indian and Alaska Native education: educational achievement and outcomes; Native language and culture; educational resources; and educational standards and assessments. These topics have been identified in the research agenda reports as ones that impact American Indian student achievement and college preparation.

Literature and information was gathered from the Educational Resources Information Center (ERIC) database, the Clearinghouse on Rural Education and Small Schools, the Bureau of Indian Affairs’ Office of Indian Education, journals on American Indian education, TRIO program reports (Upward Bound), organizational publications and reports (Education Trust, College Board, American Indian Science and Engineering Society (AISES), Education Development Center, Regional Education Laboratories), and other sources, including

bibliographies and conversations with individuals at state departments of education and state higher education executive offices.

The study of American Indian student preparation calls attention to the need to better prepare American Indian and Alaska Native students for the rigor of college academics and encourages students to participate in college preparatory classes. The extent to which high schools are preparing American Indian and Alaska Native students for college is dismal. In a recent study surveying 16 Western states, only 17 percent of Indian students were enrolling in college; less than 10 percent of Indian students were taking college preparatory math; and 30 percent were taking no math at all. Almost one-third of Indian students were not enrolled in a science course and only 1 percent were enrolled in AP classes. Many opportunities for college preparation were closed to Indian students, who were often marked for remediation programs instead of mainstream or advanced classes.⁸

◆◆◆ Discussion of Research Topics

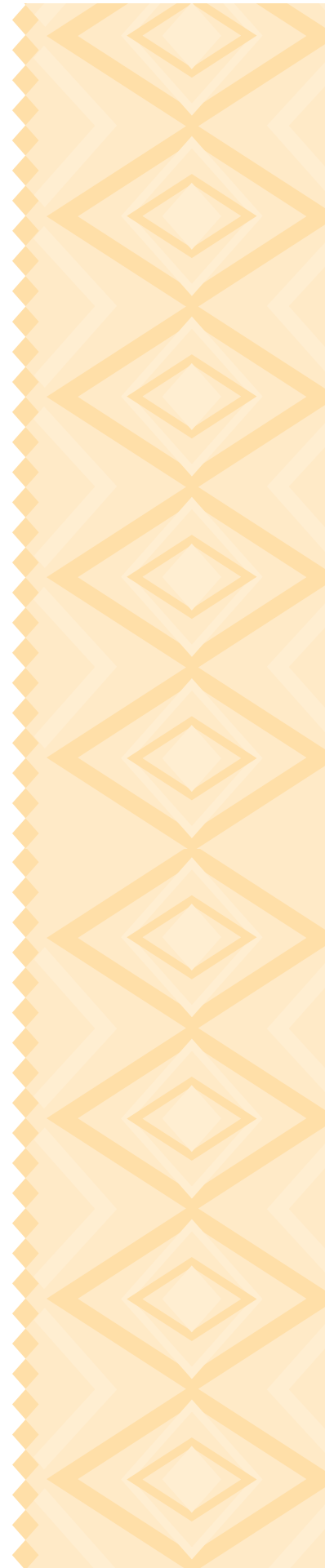
The following section is a discussion of the four major research topics on American Indian and Alaska Native education: educational achievement and outcomes; Native language and culture; educational resources; and educational standards and assessments.

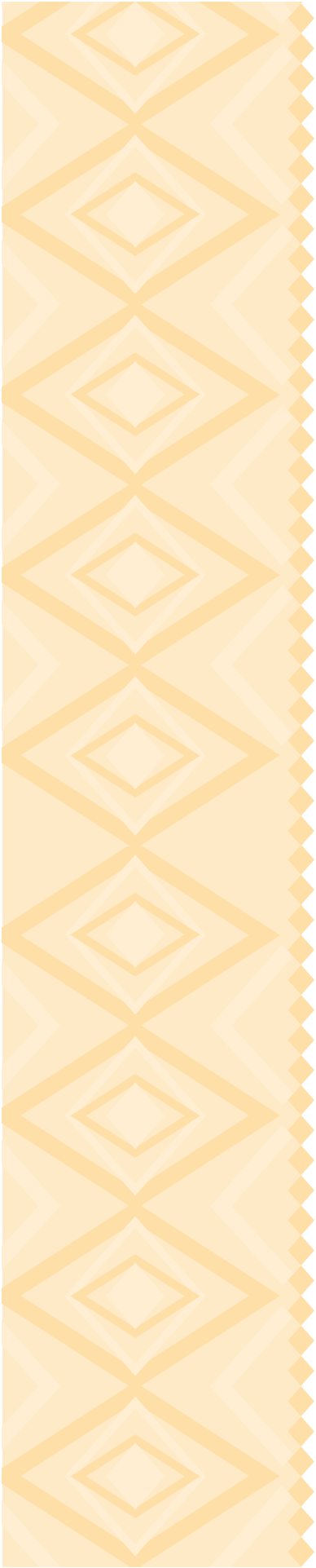
◆ Educational Achievement and Outcomes

American Indian and Alaska Native people and their nations value education and maintain goals for their children to graduate from high school and succeed in college. Tribal nations recognize the need for future generations of leaders who are able to live and work both in mainstream society and contribute to building and strengthening their tribal communities, meeting the community needs for teachers, lawyers, doctors, engineers, scientists and other professionals. According to the American Indian Science and Engineering Society (AISES), “Indian people want their children to value their culture and traditions, but they also want their children to have basic academic competencies and subject-matter knowledge. Among the critical issues for American Indians is how to reconcile Indian spiritual values and formal education.”⁹

The tension that exists between the schools American Indian and Alaska Native peoples reflects not only the history of schooling of Native people but also contemporary Native peoples’ struggle to sustain their culture and simultaneously successfully live in mainstream American society. The assimilation agenda of American schooling has continuously threatened Native peoples’ cultural survival and, ironically, is now more important than ever for cultural survival. The possibilities for addressing the problems in American Indian education are to be found in Indigenous paradigms of education that integrate cultural ways of knowing with mainstream academics.¹⁰ American Indian and Alaska Native educators have been voicing their concerns over the failure of American schooling to seriously address Native education. They assert the future work of education must be based on cultural survival in two worlds — the Indian world and that of mainstream society. And education must be based on American Indian and Alaska Native sovereignty and self-determination.

American Indian education values a holistic, lifelong learning that benefits the people and their communities and ensures spiritual survival. Schooling in the United States is based on individualism and competition that prepares students to leave their communities and compete in American society.¹¹ American Indian and Alaska Native students, whether they live in urban centers or on reservations, have not succeeded in American schools, whose values and purpose are culturally incongruent with their cultures. Research suggests that the average American Indian or Alaska Native student tends to demonstrate lower achievement levels than members of other groups. National Assessment of Educational Progress (NAEP) results for fourth graders show that American Indian and Alaska Native students score below





basic levels in reading and math.¹² Other differences exist between the American Indian and Alaska Native population and the general population in educational attainment. Using enrollment data and diploma counts collected by the U.S. Department of Education's Common Core of Data (CCD), the graduation rate of American Indian students today is 54 percent, compared to 70 percent for White students.¹³ American Indian and Alaska Native students are less frequently college bound, and their SAT and ACT scores are lower than national norms.¹⁴

While the statistics convey a dismal picture, researchers have found that that American Indian and Alaska Native students can perform as well as members of other groups under certain conditions. Students appear to do particularly well in situations where students' culture is valued or where Native parents are actively involved. In one study on motivation, Navajo students placed a high value on education, finishing high school and going on with further education.¹⁵ Despite high dropout rates, poverty, lack of motivation, and other impediments to success, there was a substantial group of successful students. Students in the study who perceived their futures as related to the value of school had greater intention of completing schooling despite indicators of cultural differences.¹⁶ Research shows that some students with cultural backgrounds different from the school they attend realize they can work well in two cultures, that of the school and that of the home. Adopting strategies for school success does not necessarily mean acculturation to broadly based White values.¹⁷

The question of who defines educational achievement and outcomes is important in determining the success of American Indian and Alaska Native education. In the decades following World War II, American Indian and Alaska Native leaders fought for legislation to protect their rights to self-determination.¹⁸ With the successful passage of the Indian Education Act of 1972 (P.L. 92-318 as amended) and the Indian Self-Determination and Education Assistance Act of 1975 (P.L. 93S638), a new era began in American Indian education. The past three decades have seen a variety of efforts to restore and revitalize Native languages and cultures through the schools.¹⁹ Through such efforts, a growing number of Native students have the opportunity to use Indigenous knowledge and language to meet *both* local *and* Western education goals.²⁰ This *both/and* paradigm supports an educational approach that values both Native and Western knowledge.²¹

Concurrent with this movement to connect Native and Western culture has been a reevaluation of what is considered appropriate academic knowledge.²² Research conducted in Alaska with Yup'ik Eskimo students found that rural Yup'ik students outperformed students from an Alaskan regional center on a test of practical knowledge.²³ Yup'ik elders, researchers, and teachers have demonstrated how to connect practical and cultural knowledge to a school's math curriculum.²⁴ Exemplary programs integrating cultural-based knowledge into mainstream education have advanced American Indian education, and although improvements are still needed, a growing number of schools have dramatically improved academic achievement among Native students.²⁵ Education programs incorporating Native culture and values are important attributes of today's American Indian education programs and will continue to be the preferred direction of American Indian education.²⁶

◆ Native Language and Culture

Native people see the role of Native languages and cultures as crucial to cultural survival and to contemporary education. This need is consistently raised in American Indian and Alaska Native education agendas. In recent years, many American Indians and Alaska Natives have been actively seeking ways to preserve and revitalize their cultural heritages and establish their distinctness from the dominant American cultural orientation.²⁷ The challenge to this agenda is the increasing diversity of American Indian people and where they live. There are over 500 Indian tribes in the United States today, and they differ in language, economic and governmental systems, history, traditional customs, and religious beliefs.²⁸ In addition to

these major differences between tribes, the complex and continuously evolving relationship of Indian peoples with the majority society has resulted in great diversity of cultural orientations among members of individual tribes as well.²⁹ A continuum exists between a very traditional orientation to Indian cultural values and practices at one extreme and the complete assimilation into a mainstream American cultural orientation at the other extreme. Most American Indian people function somewhere between these two extremes, and none have completely avoided being affected by the dominant American culture.³⁰ Many are beginning to forge new cultural identities that include knowing and valuing both traditional and current ways.³¹

Educators and parents assert two views about the proper role of Native language and culture in schools. The first perspective centers on the notion that in situations where the schools serve predominantly Indian students and are possibly Indian controlled, American Indian language and culture should be pervasive and structure the overall education experience to reflect local ways of knowing. The second is that in schools where Indian students are not in the majority, American Indian and Alaska Native students' cultural identity, histories, and lived experiences should be respected and included in the curriculum as a part of the multicultural agenda.³²

Educational research has established that Native culture and language are essential in Native children's acquisition of knowledge and high academic achievement.³³ The importance of culture as a contributing factor to student performance and positive engagement in the classroom is well-documented.³⁴ A significant factor in the academic underachievement of American Indian and Alaska Native students is suggested to be a result of the incompatibility of their cultural values with their experiences in mainstream classrooms.³⁵ Native educators and parents who want students to succeed academically share some mainstream educational values that are embedded in the educational system. Both the mainstream educational goals and the contributions of home culture should be integrated to facilitate academic achievement.³⁶

Today, many American Indian and Alaska Native communities are employing a *both/and* approach in their school systems. Research indicates that exemplary schools that integrate both Native and Western approaches to education meet two of three of the following criteria:

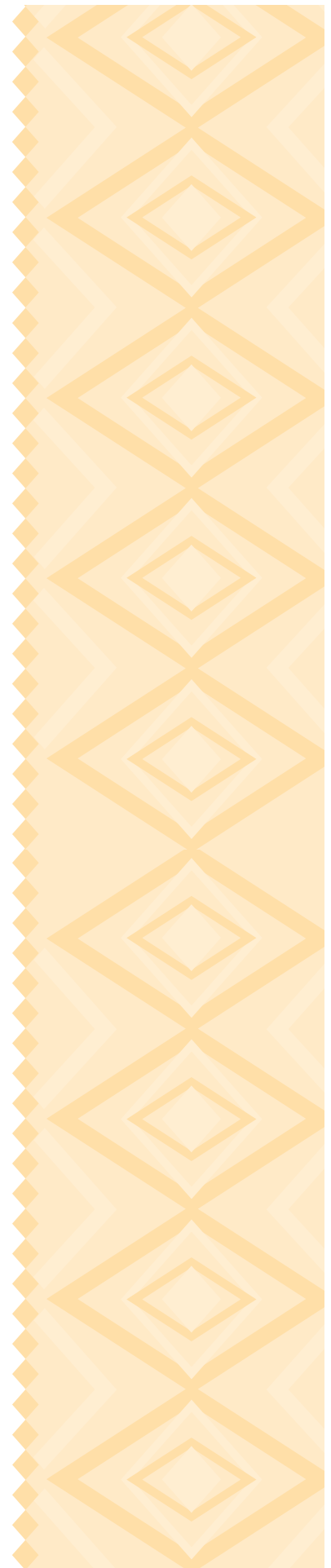
- ◆ The program involves community/tribally controlled schools.
- ◆ The program uses Indigenous culture and language.
- ◆ Students must show a significant and measurable gain in academic achievement.³⁷

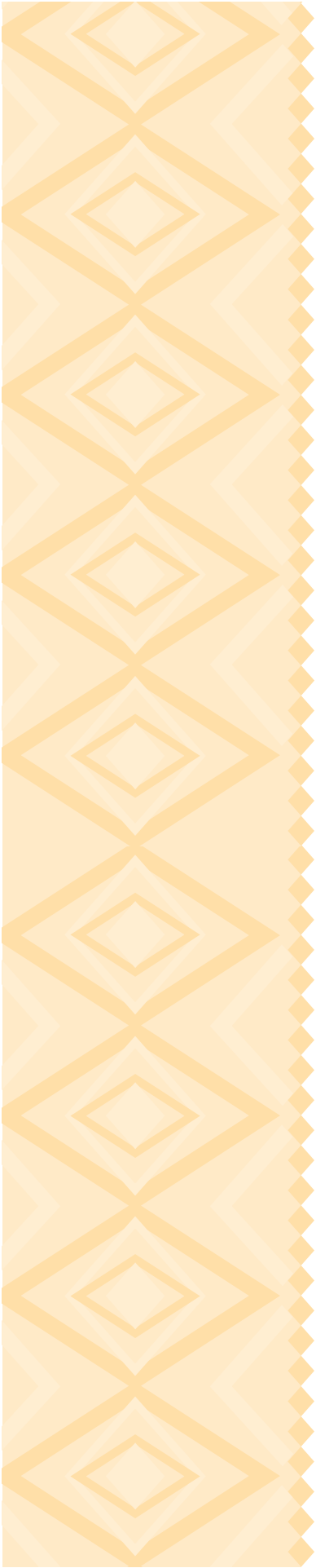
Schools that nurture bilingual and bicultural perspectives have shown improvements in learning environments and academic success.³⁸ By providing place- and community-based curriculum and instruction, teachers can provide students with relevant, practical, and motivating education where learners can actively participate in shaping their own education.³⁹

◆ Educational Resources

Adequate and appropriate educational resources are needed to create dynamic learning environments for American Indian and Alaska Native students. Resources that range from qualified teachers to adequate transportation, from curricula to classroom materials, have been an ongoing challenge in American Indian and Alaska Native education. Unfortunately, most American Indian and Alaska Native students receive inferior education, partly as a result of inadequate educational resources in schools or on reservations.

Better-prepared teachers and increased numbers of Native teachers are the most critical needs. Many non-Native teachers lack adequate preparation to teach in culturally different settings, especially on Indian reservations. Too often, they have very little contact with the communities in which they teach and lack understanding of the culture of the students, and





may even hold negative stereotypes of American Indians and Alaska Natives. The lack of Native teachers, especially adequately prepared ones, remains problematic. The rate of teacher turnover is high due to a host of problems, including isolation in rural areas.

According to the National Center for Education Statistics' *Schools and Staffing Survey*, less than 0.8 percent of the nation's public school teachers are American Indians or Alaska Natives (compared to about 1.1 percent of the students). They are less likely than White or African-American teachers to have advanced degrees or certificates and are more likely to be in their first 10 years of teaching. According to D. Michael Pavel, "The quality of students' educational experiences is determined, in large part, by the learning environment principals and teachers create. The need for Native educators who can serve as positive role models and catalysts for improvement in administration and teaching is ongoing."⁴⁰ Schools serving high percentages of American Indians and Alaska Natives need to increase the number of American Indian and Alaska Native administrators and teachers who are tribally enrolled.⁴¹ Widely accepted strategies to improve American Indian and Alaska Native student learning outcomes include increasing the number of Native teachers and increasing the number of teachers, Native as well as non-Native, who are properly trained to meet the needs of Native students.⁴² Teachers' knowledge of Native language and culture can positively influence schools, students, and communities.⁴³

◆ Educational Standards and Assessments

Standards-based reform and the changes taking place in schools are significantly impacting American Indian and Alaska Native students. American Indian and Alaska Native students are facing an unprecedented series of tests to determine their levels of proficiency at local, state, and national levels. Standards-based reform efforts can help improve American Indian education with new standards and assessments, but only if schools are held accountable and the blame for poor performance is not placed on the students.⁴⁴ The literature suggests that educational reform should be systematically and intentionally designed to meet the needs of Native students. As new or alternative assessments are developed, the effort to improve cultural relevance must involve parents and tribal community members.⁴⁵

Educators concerned about standards-based reform argue that schools will focus on teaching to the tests and the problems in American Indian education will continue. According to Cornel Pewewardy, "All of the restructuring in the world will be of no benefit to children if the philosophy, theory, assumptions, and definitions are flawed or invalid. Native educators and parents know the problems and their causes."⁴⁶ Native educators have long raised the questions of cultural bias in testing and cultural exclusion in testing. The following questions, raised by Native educators at the "Developing a New Research Agenda for American Indian and Alaska Native Education" conference in 2000, signal the concern and attention needed to be given to standards and assessment:

- ◆ Were content and performance standards developed with the input of American Indian and Alaska Native people?
- ◆ Were standards and assessment systems reviewed and approved by American Indian and Alaska Native educators?
- ◆ What is the relationship between parents and the community's views of success and standards and assessment systems?
- ◆ How do schools, parents, and communities divide responsibilities to produce successful students?
- ◆ Are standards meaningful for students to survive in two worlds?
- ◆ Do standards include student skills to sustain community?

Research and lessons learned in the effective schools research initiative of the Office of Indian Education Programs and the Goals 2000: Educate America Act have resulted in school reform and in curriculum and assessment improvement in Bureau of Indian Affairs–supported schools. The “Learning Record” assessment, adopted as a new assessment system and now being implemented, has the opportunity to provide new insights to improve cultural relevance of curricula and assessment.⁴⁷ E. T. Estrin and S. Nelson-Barber assert, “Many Native students are thriving in programs that are based on culturally responsive curriculum, instruction and assessment. And — fortuitously — the current climate of reform provides all of us an opportunity to reexamine old assumptions and develop new bases of knowledge from which to re-create instruction and assessment.”⁴⁸

◆◆◆ Conclusion

As American Indian and Alaska Native educators and researchers increasingly contribute to the field of American Indian and Alaska Native education, issues, concerns, and needs of American Indian and Alaska Native peoples, tribes, and communities will be better met. It is important to understand that American Indian and Alaska Native education is unique, and different from mainstream American education. This fact, borne out in treaties, U.S. federal Indian policies, and the survival of American Indian and Alaska Native peoples, has to be recognized and considered.

Any educational movement or initiative that may impact American Indian and Alaska Native education requires a critical examination of its intention and requires involvement of Native peoples in the process. Much more research and data collection is needed to inform educational policy and practice, and the orientation of educational research of American Indian and Alaska Native education should be based on success and self-determination. As schools and states build educational programs that strengthen Native students educational success, the complexity of the issues minimally addressed in this discussion of relevant research needs to be considered. More research is needed at the secondary level to better reflect the success of American Indian and Alaska Native high school graduates and postsecondary attainment.

◆◆◆ Endnotes

¹ Although this study does not clearly delineate the various accelerated learning opportunities, questions were asked in the larger context of accelerated learning as well as specific Advanced Placement programs.

² Although in the discussion of relevant research, American Indian and Alaska Native people’s education are connected, this report does not examine Alaska Native people’s access to or participation in Advanced Placement; thus it will refer exclusively to American Indians.

³ See the College Board’s Advanced Placement Web Site at <http://www.collegeboard.org/ap/index>.

⁴ See the College Board’s Advanced Placement Web Site at <http://www.collegeboard.org/ap/index>.

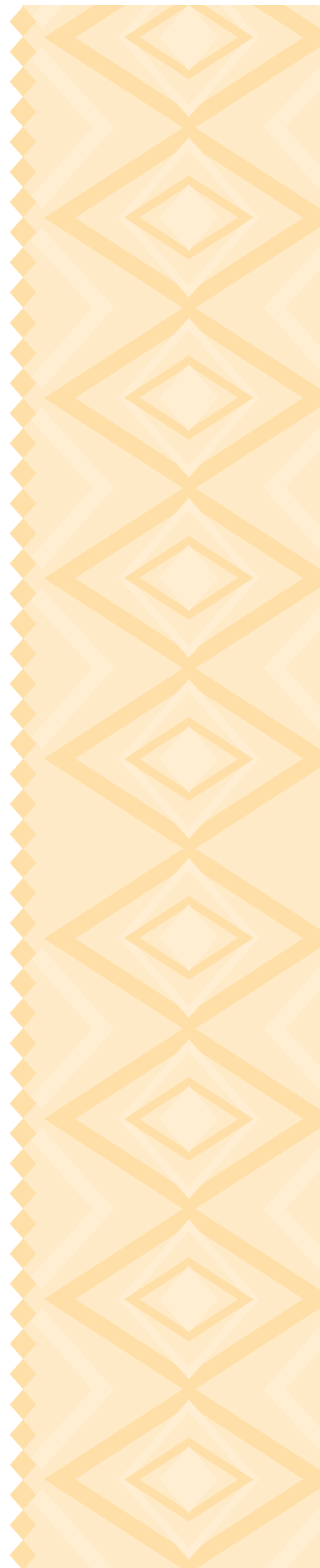
⁵ Indian Nations At Risk Task Force, *An Educational Strategy for Action: Final Report of the Indian Nations at Risk Task Force* (Washington, D.C.: U.S. Department of Education, 1991), ERIC Document Reproduction Service ED 343753.

⁶ Dean Chavers, *Indian Students and College Preparation* (2002), ERIC Documentation Reproduction Service ED 464770.

⁷ “Catching the Dream, Developing a New Research Agenda for American Indian and Alaska Native Education,” National Indian Education Research Agenda Conference, Albuquerque, NM, May 2000 (Washington, DC: U.S. Department of Education, Federal Interagency Task Force, American Indian and Alaska Native Education Research Agenda, 2001), ED 462216.

⁸ Chavers.

⁹ American Indian Science and Engineering Society, “Educating American Indian/Alaska Native Elementary and Secondary Students” (Boulder, CO: American Indian Science and Engineering Society, 1995).



- ¹⁰ Gregory Cajete, “Look to the Mountain: An Ecology of Indigenous Education” (Durango, CO: Kivaki, 1997).
- ¹¹ Cajete.
- ¹² National Assessment of Educational Progress, average scale scores, by race/ethnicity, grades 4 and 8: 1990–2003 < <http://nces.ed.gov/nationsreportcard/reading/results2003/raceethnicity.asp> > < <http://nces.ed.gov/nationsreportcard/mathematics/results2003/raceethnicity.asp> >.
- ¹³ Jay Greene and Greg Forster, *Public High School Graduation and College Readiness Rates in the United States* (New York, NY: Manhattan Institute, Center for Civic Innovation, 2003).
- ¹⁴ Karen Gayton Swisher and John W. Tippeconnic III, *Next Steps: Research and Practice to Advance Indian Education* (Charleston, WV: ERIC/CRESS, 1999).
- ¹⁵ Dennis M. McNerney and Karen Gayton Swisher, “Exploring Navajo Motivation in School Settings,” *Journal of American Indian Education* 34, no. 3 (1995), 1-17.
- ¹⁶ McNerney and Swisher, 1-17.
- ¹⁷ John G. Ogbu, “Understanding Cultural Diversity and Learning,” *Educational Researcher* 21 (1992), 5-14; John G. Ogbu, “Minority Status and Schooling in Plural Societies,” *Comparative Education Review* 27 (1983), 168-190; John G. Ogbu and M. E. Matute-Bianchi, “Understanding Sociocultural Factors in Education: Knowledge, Identity, and Adjustment in Schooling” in *Beyond Language: Social and Cultural Factors in Schooling Language Minority Students*, from the California State Department Bilingual Education Office (Sacramento, CA: California State University-Los Angeles, Evaluation, Dissemination and Assessment Center, 1986), 73-142.
- ¹⁸ Jon Reyhner, *Changes in American Indian Education: A Historical Retrospective for Educators in the United States* (Charleston, WV: ERIC/CRESS, 1989), ERIC Document Reproduction Service, ED 314228.
- ¹⁹ William G. Demmert Jr., *Improving Academic Performance Among Native American Students: A Review of the Research Literature* (Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, 2001).
- ²⁰ Donna Deyhle and Karen Gayton Swisher (1997), “Research in American Indian and Alaska Native Education: From Assimilation to Self-Determination,” in M. W. Apple (ed.), *Review of Research in Education* 22 (Washington, DC: American Educational Research Association, 1997), 113-194; Swisher and Tippeconnic, *Next Steps*; Tarajeau Yazzie, “Culturally Appropriate Curriculum: A Research-based Rationale,” in Swisher and Tippeconnic, *Next Steps*, 83-106.
- ²¹ Jerry Lipka and Teresa McCarty, “Changing the Culture of Schooling: Navajo and Yup’ik Cases,” *Anthropology & Education Quarterly* 25, no. 3 (1994), 266-284.
- ²² Jerry Lipka, “Schooling for Self-determination: Research on the Effects of including Native Language and Culture in Schools” (ERIC Digest, 2002), EDO-RC-010-12.
- ²³ E. L. Grigorenko, E. Meier, Jerry Lipka, Gerald Mohatt, E. Yanez, and R.J. Sternberg, “The Relationship between Academic and Practical Intelligence: A Case Study of the Tacit Knowledge of Native American and Yup’ik People in Alaska,” unpublished manuscript (2001).
- ²⁴ Jerry Lipka, S. Wildfeuer, N. Wahlberg, M. George, and D. Erzan, “Elastic Geometry and Storyknifing: A Yup’ik Eskimo Example,” *Teaching Children Mathematics* 7, no. 6 (2001), 337-343.
- ²⁵ American Indian Science and Engineering Society, “Teacher Education Program: Indigenous Education,” 1997 Annual National Conference, Houston, TX.
- ²⁶ Linda Skinner, “Teaching through Traditions: Incorporating Languages and Culture into Curricula,” in Swisher and Tippeconnic, *Next Steps*, 107-134; Tarajeau Yazzie, “Culturally Appropriate Curriculum: A Research-based Rationale,” in Swisher and Tippeconnic, *Next Steps*, 83-106.
- ²⁷ R. A. Lake, “Between Myth and History: Enacting Time in Native American Protest Rhetoric,” *Quarterly Journal of Speech* 77 (1991), 123-151; R. Morris and P. Wander, “Native American Rhetoric: Dancing in the Shadow of the Ghost Dance,” *Quarterly Journal of Speech* 76 (1990), 164-191.
- ²⁸ R. K. Chiago, “Making Education Work for the American Indian,” *Theory into Practice* (1981), 20-25.
- ²⁹ J. Barden, “In the Spirit,” *Tribal College Journal* 6 (1994), 23-25.
- ³⁰ J. Barden and L. French, *Psychocultural Change and the American Indian* (New York: Garland Publishing, 1987).
- ³¹ R. C. Henze and L. Vanett, “To Walk in Two Worlds — or More: Challenging a Common Metaphor of Native Education,” *Anthropology & Education Quarterly* 24 (1993), 116-134.
- ³² Federal Interagency Task Force, “American Indian and Alaska Native Education Research Agenda” (Washington, D.C.: U.S. Department of Education, 2001), ED 462216.

- ³³ Jerry Lipka, Gerald Mohatt, and the Ciulistet Group, "Transforming the Culture of Schools: Yup'ik Eskimo Examples," *Sociocultural, Political, and Historical Studies in Education* (Mahwah, NJ: Lawrence Erlbaum, 1998), ERIC Document Reproduction Service, ED 431565; Skinner, "Teaching through Traditions,"; Yazzie, "Culturally Appropriate Curriculum"; V. L. Dupuis and M. W. Walker, "The Circle of Learning at Kickapoo," *Journal of American Indian Education* 28 (1988), 27-33; J. A. Hakes et al., *Curriculum Improvement for Pueblo Indian Students: A Pilot Study* (Albuquerque, NM: ERIC Document Reproduction Service, 1980), ED 190 283; Teresa L. McCarty, "School as Community: The Rough Rock Demonstration," *Harvard Educational Review* 59 (1989), 484-503; Gerald V. Mohatt and Nancy Sharp, "The Evolution and Development of a Yup'ik Teacher," in Lipka with Mohatt and the Ciulistet Group (eds.), *Transforming the Culture of Schools: Yup'ik Eskimos Examples* (Mahwah, NJ: Lawrence Erlbaum, 1998), 41-69.
- ³⁴ Henry Trueba, "Culturally-based Explanations of Minority Students' Academic Achievement," *Anthropology and Education Quarterly* 59, no. 3 (1988), 270-287.
- ³⁵ R. I. Luftig, "Effects of Schooling on the Self-concept of Native American Students," *School Counselor* 30 (1983), 251-260.
- ³⁶ Trueba, 270-287.
- ³⁷ Deyhle and Swisher, "Research"; Swisher and Tippeconnic, *Next Steps*; Yazzie, "Holding a Mirror to 'Eyes Wide Shut': The Role of Native Cultures and Language in the Education of American Indian Students," paper commissioned by the Office of Educational Research and Improvement, U.S. Department of Education (2000).
- ³⁸ Daniel McLaughlin, *When Literacy Empowers: Navajo Language in Print* (Albuquerque, NM: University of New Mexico, 1992).
- ³⁹ D. Corson, "Community-based Education for Indigenous Cultures," *Language, Culture, and Curriculum* 11, no. 3 (1998), 238-249.
- ⁴⁰ D. Michael Pavel, "American Indians and Alaska Natives in Higher Education: Promoting Access and Achievement," in Swisher and Tippeconnic, *Next Steps* (1999).
- ⁴¹ M. L. Fuller, "Monocultural Teachers and Multicultural Students: A Demographic Clash," *Teaching Education* 4, no. 2 (1992), 87-93; Willis D. Hawley, "The Importance of Minority Teachers to the Racial and Ethnic Integration of American Society," *Equity and Choice* 5, no. 2 (1989), 31-16; R. I. Quezada, J. J. Galbo, P. M. Russ, and A. T. Vang, "Teacher Recruitment Programs for K-12 Students: Implications for Teacher Education," *Teacher Education Quarterly* 23, no. 4 (1996), 85-94.
- ⁴² J. Banks, *An Introduction to Multicultural Education* (2nd edition) (Boston: Allyn and Bacon, 1999); Indian Nations At Risk Task Force, *An Educational Strategy for Action: Final Report of the Indian Nations at Risk Task Force* (Washington, D.C.: U.S. Department of Education, 1991), ERIC Document Reproduction Service ED 343753; D. Michael Pavel, "Comparing BIA and Tribal Schools with Public Schools: A Look at the Year 1990-91," *Journal of American Indian Education* 35, no. 5 (1995), 10-15; Pavel in Swisher and Tippeconnic, *Next Steps*; U.S. Department of Education National Center for Education Statistics, *Characteristics of American Indian and Alaska Native Education: Results from the 1990-91 School and Staffing Survey, NCES 95-735* (Washington, D.C.: U.S. Department of Education National Center for Education Statistics, 1995); U.S. Department of Education National Center for Education Statistics, *Characteristics of American Indian and Alaska Native Education: Results from the 1993-94 and 1990-91 Schools and Staffing Survey, NCES 97-451* (Washington, D.C.: U.S. Department of Education National Center for Education Statistics, 1997); White House Conference on Indian Education, *Final Report of the White House Conference on Indian Education* (Washington, D.C.: White House Conference on Indian Education, 1992), ERIC Document Reproduction Service, ED 353124.
- ⁴³ D. W. Friesen and J. Orr, "New Paths, Old Ways: Exploring the Places of Influences on the Role of Identity," *Canadian Journal of Native Education* 22, no. 2 (1998), 188-200.
- ⁴⁴ S. J. Fox, "Standards-based Reform and American Indian/Alaska Native Education," presented at the National Indian Education Research Agenda Conference, Albuquerque, NM, May 2000.
- ⁴⁵ Roger Bordeaux, "Assessment for American Indian and Alaska Native Learners," (Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, ERIC Digest, ERIC Reproduction Service, 1995), ED 385424.
- ⁴⁶ Cornel Pewewardy, "Our Children Can't Wait: Recapturing the Essence of Indigenous Schools in the United States," *Cultural Survival Quarterly* 22, no. 1 (1998), 29-34.
- ⁴⁷ S. J. Fox, "Student Assessment in Indian Education or What is a Roach?" in Swisher and Tippeconnic, *Next Steps*, 161-178.
- ⁴⁸ E.T. Estrin and S. Nelson-Barber, *Issues in Cross-Cultural Assessment: American Indian and Alaska Native Students* (San Francisco: Far West Laboratory, 1995).



◆◆◆ References

- American Indian Science and Engineering Society. *Educating American Indian/Alaska Native Elementary and Secondary Students*. Boulder, CO: American Indian Science and Engineering Society, 1995.
- American Indian Science and Engineering Society. *Teacher Education Program: Indigenous Education*. Houston, TX: Annual National Conference, 1997.
- Banks, J. *An Introduction to Multicultural Education (2nd edition)*. Boston: Allyn and Bacon, 1999.
- Banks, S. "Caregiver and Professional Perceptions of Assessment Practices and Validity for American Indian/Alaska Native Families." *Journal of American Indian Education* 37, no. 1 (1997): 16-44.
- Barden, J. "In the Spirit." *Tribal College Journal* 6 (1994): 23-25.
- Bordeaux, Roger. *Assessment for American Indian and Alaska Native Learners*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, 1995. ERIC Reproduction Service, ED 385424.
- Cajete, Gregory. *Look to the Mountain: An Ecology of Indigenous Education*. Durango, CO: Kivaki, 1997.
- Catching the Dream. *Developing a New Research Agenda for American Indian and Alaska Native Education*. Albuquerque, NM: National Indian Education Research Agenda Conference (May 2000).
- Chavers, Dean. *Indian Students and College Preparation*. ERIC Reproduction Service, 2002: ED 464770.
- Chiago, R. K. "Making Education Work for the American Indian." In *Theory Into Practice* (1981): 20-25.
- Coburn, J., & Nelson, S. *Characteristics of Successful Indian Students*. Portland, OR: Northwest Regional Laboratory, 1987.
- Coladarci, Thomas. "High-School Dropout among Native Americans." In *Journal of Indian Education* 23, no. 1 (1983): 15-22.
- Corson, D. "Community-based Education for Indigenous Cultures." In *Language, Culture, and Curriculum* 11, no. 3 (1998): 238-249.
- Demmert, William G. Jr. *Improving Academic Performance Among Native American Students: A Review of the Research Literature*. Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, 2001.
- Deyhle, Donna. "Constructing Failure and Maintaining Cultural Identity: Navajo and Ute School Leaders." In *Journal of American Indian Education* 31, no. 2 (1992): 24-47.
- Deyhle, Donna, and Karen Gayton Swisher. "Research in American Indian and Alaska Native Education: From Assimilation to Self-Determination." In *Review of Research in Education*, edited by M. W. Apple. Washington, DC: American Educational Research Association, 1997: 113-194.
- Dupuis, V. L., and M. W. Walker. "The Circle of Learning at Kickapoo." In *Journal of American Indian Education* 28 (1988): 27-33.
- Estrin, E. T., and S. Nelson-Barber. *Issues in Cross-Cultural Assessment: American Indian and Alaska Native Students*. San Francisco: Far West Laboratory, 1995.
- Federal Interagency Task Force. *American Indian and Alaska Native Education Research Agenda*. Washington, D.C.: U.S. Department of Education, 2001. ED 462216.
- Fox, S. J. "Student Assessment in Indian Education or What is a Roach?" In *Next Steps: Research and Practice to Advance Indian Education*, edited by Karen Gayton Swisher and John Tippeconnic III. Charleston, WV: Clearinghouse on Rural Education and Small Schools, 1999: 161-178.
- Fox, S. J. "Standards-based Reform and American Indian/Alaska Native Education." Presented at the National Indian Education Research Agenda Conference, Albuquerque, NM (2000).
- French, L. *Psychocultural Change and the American Indian*. New York: Garland Publishing, 1987.
- Friesen, D. W., and J. Orr. "New Paths, Old Ways: Exploring the Places of Influences on the Role of Identity." *Canadian Journal of Native Education* 22, no. 2 (1998): 188-200.
- Fuller, M. L. "Monocultural Teachers and Multicultural Students: A Demographic Clash." *Teaching Education* 4, no. 2 (1992): 87-93.
- Garrett, Michael Tlanusta. "Two People: An American Indian Narrative of Bicultural Identity." *Journal of American Indian Education* 36, no. 1 (1996): 1-21.
- Greene, Jay, and Greg Forster. *Public High School Graduation and College Readiness Rates in the United States*. New York, NY: Manhattan Institute, Center for Civic Innovation, 2003.

- Grigorenko, E. L., E. Meier, Jerry Lipka, Gerald Mohatt, E. Yanez, and R. J. Sternberg. *The Relationship Between Academic and Practical Intelligence: A Case Study of the Tacit Knowledge of Native American and Yup'ik People in Alaska*. Unpublished manuscript (2001).
- Hakes, Judith A., et al. *Curriculum Improvement for Pueblo Indian Students: A Pilot Study*. Albuquerque, NM: ERIC Document Reproduction Service, 1980. ED 190283.
- Hawley, Willis D. "The Importance of Minority Teachers to the Racial and Ethnic Integration of American Society." *Equity and Choice* 5, no. 2 (1989).
- Henze, R.C., and L. Vanett. "To Walk in Two Worlds — or More: Challenging a Common Metaphor of Native Education." *Anthropology & Education Quarterly* 24 (1993): 116-134.
- Indian Nations at Risk Task Force. *Indian Nations at Risk Task Force: An Educational Strategy for Action: Final Report of the Indian Nations at Risk Task Force*. Washington, D.C.: U.S. Department of Education, 1991. ERIC Document Reproduction Service, ED 343 753.
- Jacobs, Don Trent, and Jon Reyhner. *Preparing Teachers to Support American Indian and Alaska Native Student Success and Cultural Heritage* (electronic version). Charleston, WV: IndianEduResearch.Net, 2002 <<http://www.indianeduresearch.net/edorc01-13.htm>>.
- Lake, R. A. "Between Myth and History: Enacting Time in Native American Protest Rhetoric." *Quarterly Journal of Speech* 77 (1991): 123-151.
- Lipka, Jerry. "Schooling for Self-determination: Research on the Effects of Including Native Language and Culture in Schools." *ERIC Digest* (2002): EDO-RC-010-12.
- Lipka, Jerry, and Teresa L. McCarty. "Changing the Culture of Schooling: Navajo and Yup'ik Cases." *Anthropology & Education Quarterly* 25, no. 3 (1994): 266-284.
- Lipka, Jerry, Gerald V. Mohatt, and the Ciulistet Group. "Transforming the Culture of Schools: Yup'ik Eskimo Examples." *Sociocultural, Political, and Historical Studies in Education*. Mahwah, NJ: Lawrence Erlbaum, 1998. ERIC Document Reproduction Service, ED 431565.
- Lipka, Jerry, S. Wildfeuer, N. Wahlberg, M. George, and D. Erzan. "Elastic Geometry and Storyknifing: A Yup'ik Eskimo Example." *Teaching Children Mathematics* 7, no. 6 (2001): 337-343.
- Luftig, R. L. "Effects of Schooling on the Self-concept of Native American Students." *School Counselor* 30 (1983): 251-260.
- McCarty, Teresa L. "School as Community: The Rough Rock Demonstration." *Harvard Educational Review* 59 (1989): 484-503.
- McInerney, Dennis M., and Karen Gayton Swisher. "Exploring Navajo Motivation in School Settings." *Journal of American Indian Education* 34, no. 3 (1995), 1-17.
- McLaughlin, Daniel. *When Literacy Empowers: Navajo Language in Print*. Albuquerque, NM: University of New Mexico, 1992.
- Mohatt, Gerald V., and Nancy Sharp. "The Evolution and Development of a Yup'ik Teacher." In *Transforming the Culture of Schools: Yup'ik Eskimos Examples*, edited by Jerry Lipka with Gerald V. Mohatt and the Ciulistet Group. Mahwah, NJ: Lawrence Erlbaum, 1998: 41-69.
- Morris, Richard and Philip Wander. "Native American Rhetoric: Dancing in the Shadow of the Ghost Dance." *Quarterly Journal of Speech* 76 (1990): 164-191.
- National Assessment of Educational Progress, Average scale scores, by race/ethnicity, grades 4 and 8: 1990–2003, <<http://nces.ed.gov/nationsreportcard/reading/results2003/raceethnicity.asp>> <<http://nces.ed.gov/nationsreportcard/mathematics/results2003/raceethnicity.asp>>.
- Office of Indian Education Programs. *Goals 2000 Report School Report Cards*. Albuquerque, NM: Bureau of Indian Affairs, 2000.
- Ogbu, John G. "Minority Status and Schooling in Plural Societies." *Comparative Education Review* 27 (1983): 168-190.
- Ogbu, John G. "Understanding Cultural Diversity and Learning." *Educational Researcher* 21 (1992): 5-14.
- Ogbu, John G., and M.E. Matute-Bianchi. "Understanding Sociocultural Factors in Education: Knowledge, Identity, and Adjustment in Schooling." In *Beyond Language: Social and Cultural Factors in Schooling Language Minority Students*, by California State Department Bilingual Education Office, 73-142. Sacramento, CA: California State University-Los Angeles Evaluation, Dissemination and Assessment Center, 1986.



- Pavel, D. Michael. "Comparing BIA and Tribal Schools with Public Schools: A Look at the Year 1990-91." *Journal of American Indian Education* 35, no. 5 (1995): 10-15.
- Pavel, D. Michael. "American Indians and Alaska Natives in Higher Education: Promoting Access and Achievement." In *Next Steps: Research and Practice to Advance Indian Education*, edited by Karen Gayton Swisher and John Tippeconnic III. Charleston, WV: Clearinghouse on Rural Education and Small Schools, 1999.
- Pavel, D. Michael. "Schools, Principals, and Teachers Serving American Indian and Alaska Native Students" (ERIC Digest) Charleston, WV: ERIC Clearinghouse on Rural Education and Small Schools, 1999. ERIC Document Reproduction Service, ED 425895.
- Pavel, D. Michael, and Thomas R. Curtin. *Characteristics of American Indian and Alaska Native Education Results from the 1990-91 and 1993-94 Schools and Staffing Surveys*. Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, 1997.
- Pewewardy, Cornel. "Our Children Can't Wait: Recapturing the Essence of Indigenous Schools in the United States." *Cultural Survival Quarterly* 22, no. 1 (1998): 29-34.
- Quezada, Reyes I., Joseph J. Galbo, Pamela M. Russ, and Anthony T. Vang. "Teacher Recruitment Programs for K-12 Students: Implications for Teacher Education." *Teacher Education Quarterly* 23, no. 4 (1996): 85-94.
- Reyhner, Jon. "Changes in American Indian Education: A Historical Retrospective for Educators in the United States" (ERIC Digest). Charleston, WV: ERIC/CRESS, 1989. ERIC Document Reproduction Service, ED 314228.
- Reyhner, Jon (ed.). *Teaching American Indian Students*. Norman, OK: University of Oklahoma, 1992.
- Reyhner, Jon, Harry Lee, and David Gabbard. "A Specialized Knowledge Base for Teaching American Indian and Alaska Native Students." *Tribal College* 4, no. 4 (1993): 26-32.
- Rindone, Pauline. "Achievement Motivation and Academic Achievement of Native American Students." *Journal of American Indian Education* 28, no. 1 (1988): 1-8.
- Skinner, Linda. (1999). "Teaching through Traditions: Incorporating Languages and Culture into Curricula." In *Next Steps: Research and Practice to Advance Indian Education*, edited by Karen Gayton Swisher and John W. Tippeconnic III. Charleston, WV: Clearinghouse on Rural Education and Small Schools, 1999: 107-134.
- Smith, Linda T. *Decolonizing Methodologies: Research and Indigenous People*. London: Zed Books, 1999.
- Swisher, Karen Gayton, and John W. Tippeconnic III. *Next Steps: Research and Practice to Advance Indian Education*. Charleston, WV: ERIC/CRESS, 1999.
- Tippeconnic III, John W. "Tribal Control of American Indian Education: Observations Since the 1960s with Implications for the Future." In *Next Steps: Research and Practice to Advance Indian Education*, edited by Karen Gayton Swisher and John Tippeconnic III. Charleston, WV: Clearinghouse on Rural Education and Small Schools, 1999: 33-52.
- Trueba, Henry. "Culturally-based Explanations of Minority Students' Academic Achievement." *Anthropology and Education Quarterly* 59, no. 3 (1988): 270-287.
- U.S. Department of Education National Center for Education Statistics. *Characteristics of American Indian and Alaska Native Education: Results from the 1990-91 School and Staffing Survey, NCES 95-735*. Washington, D.C.: U.S. Department of Education National Center for Education Statistics, 1995.
- U.S. Department of Education National Center for Education Statistics. *Characteristics of American Indian and Alaska Native Education: Results from the 1993-94 and 1990-91 Schools and Staffing Survey, NCES 97-451*. Washington, D.C.: U.S. Department of Education National Center for Education Statistics, 1997.
- White House Conference on Indian Education. *Final Report of the White House Conference on Indian Education*. Washington, D.C.: White House Conference on Indian Education, 1992. ERIC Document Reproduction Service, ED 353124.
- Yazzie, Tarajeen. "Culturally Appropriate Curriculum: A Research-based Rationale." In *Next Steps: Research and Practice to Advance Indian Education*, edited by Karen Gayton Swisher and John Tippeconnic III. Charleston, WV: Clearinghouse on Rural Education and Small Schools, 1999: 83-106.
- Yazzie, Tarajeen. "Holding a Mirror to 'Eyes Wide Shut': The Role of Native Cultures and Language in the Education of American Indian Students." Washington, D.C.: Office of Educational Research and Improvement, U.S. Department of Education, 2000.

