

# ED348197 1992-08-00 American Indians and Alaska Natives in Higher Education: Research on Participation and Graduation. ERIC Digest.

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**Author:** Pavel, D. Michael

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Educators with an interest in the postsecondary education of American Indians and Alaskan Natives (hereafter, "Natives") will find this Digest useful. It covers four topics: equity in undergraduate enrollment and graduation, longitudinal studies, qualitative research, and continuity with the K-12 system. The Digest illustrates the actual and potential usefulness of data about Natives in national databases, and it considers the need to apply qualitative methods. Whatever the method, however, research must also draw on the existing literature and the actual experiences of Native educators.

## EQUITY IN ENROLLMENT AND GRADUATION

Achieving equity in the number of Native students who enter college and subsequently graduate is important to Natives and to the nation as a whole. The need is both real and attainable, as recent research suggests. Researchers can help by developing indicators that measure progress toward meeting the need.

Richardson and Pavel (in press), for instance, propose two indicators to determine progress towards achieving equity in postsecondary institutions. They used both institutional and demographic data to develop the proposed indicators.

Institutional data about enrollment and graduation are available for the universe of postsecondary institutions through annual Integrated Postsecondary Education Data System (IPEDS) surveys, conducted by the National Center for Education Statistics (NCES). Demographic data about the percentage of Natives in a given region come from the U.S. Census Bureau. Although the use of Census data on Natives is sometimes questioned, Richardson and Pavel demonstrate the actual and potential usefulness of existing data. They also call for improved sampling, especially to provide more accurate identification of Native students.

Researchers, following Richardson and Pavel, can compute state equity scores for enrollment (ESEs). This indicator is created by dividing (a) the proportion of Natives in the state population by (b) the proportional Native enrollment in the state's institutions. Multiplying the resulting ratio by 100 removes the decimals, and an ESE score of 100 would, on this basis, indicate equity. Equity simply means that the proportion of Natives enrolled in a state's colleges equals the proportion of Natives in the state's total population.

Similarly, state equity scores for graduation (ESGs) can be computed by dividing (a) the proportion of Natives in an entering class by (b) the proportion of Natives who graduate. The timing of graduation depends on the nature of degree programs and the effect of sporadic or parttime enrollment. Computing ESG scores must, therefore, take such circumstances into account.

Richardson and Pavel computed equity indicators (ESEs and ESGs) from 1980 to 1988,

using IPEDS data from four-year undergraduate public and independent institutions. They also used 1980 and 1985 Census data in seven states with relatively large Native populations (AK, AZ, MT, ND, NM, OK, and SD).

The analysis compared progress at state college and universities to progress at land grant (or "flagship") institutions in each state. As many observers have suspected, the data suggest little overall progress between 1980 and 1988. ESEs for both public and independent institutions varied widely, but the median ESE score for both sectors was in the low 50s. This finding indicates that, in general, the number of Native students enrolled in four-year institutions needs to double in order to achieve equity of Native enrollment in the 1990s.

The median ESGs were 75 and 40 at public and independent institutions, respectively. Here, too, the number of students graduating from four-year institutions needs to increase considerably for Natives to attain equity.

## LONGITUDINAL STUDIES

Longitudinal studies can help examine time-dependent factors that influence postsecondary enrollment and graduation. Two examples presented here use Native data from separate national databases. Both studies demonstrate that surveys must ask Native students the right questions, while illustrating uses of Native data available in national databases.

The first study (McEvans & Astin, 1992) used regression analysis to determine the characteristics that predict enrollment and graduation among ethnic and racial minorities. Data for this study came from information collected from 1984 to 1988 by the Cooperative Institutional Research Program (CIRP) at the University of California, Los Angeles.

The second study, by Pavel & Padilla (1992) assessed the Tinto (1987) model of institutional departure, using a structural modeling technique. The study used data collected by NCES from Native high school sophomores and seniors in its longitudinal survey, High School and Beyond (HS&B).

In the first study, McEvans and Astin examined the influence of gender, high school grades, pre-college test scores, and institutional type on postsecondary retention. They used graduation or enrollment status as dependent variables among 925 Native respondents. Results indicated that Native students were likely to enroll in public four-year colleges and universities and to have the lowest retention rates among all ethnic and racial groups.

According to McEvans and Astin, only 15 percent of the Natives earned bachelors degrees, compared to nearly 37 percent of the Whites and Asians. Both male and female Natives were unlikely to complete degrees. Although Native retention rates

improve at selective independent institutions, Native students with high SAT scores do not complete their degree programs at the same rate as other ethnic and racial groups with similar scores. One may conclude, therefore, that additional factors, working in concert with academic preparation, influence persistence.

In the second study, Pavel and Padilla assessed Tinto's model to see how it applied to the experiences of nearly 400 Native respondents in the HS&B surveys. Tinto's model illustrates how family background, skills and abilities, and prior schooling influence intentions and commitments prior to college entrance. These pre-entry influences determine the extent to which students will become part of campus academic and social systems. The extent of such integration, moreover, can further influence students' intentions and commitments.

Pavel and Padilla's results suggested that both intentions in high school and academic integration on campus are central to postsecondary outcomes. Social integration plays a prominent, but indirect role. In particular, programs that foster aspirations to pursue higher education should come early, rather than late, in a Native student's high school experience. Moreover, once on campus, Native students need support programs to enhance academic integration, together with programs to satisfy the Native student's social needs.

## QUALITATIVE RESEARCH

The latter study, in particular, illustrates the need for qualitative research. Wise decisions about programming require knowledge about how such influences as student sub-cultures, curriculum, and the quality of advising affect participation and graduation. Two studies that used qualitative methods illustrate the need for further inquiry into the Native student's higher education experiences.

Murgia, Padilla, and Pavel (1991) derived a concept model of ethnicity and social integration. Data came from interviews with 24 upper-class students, equally represented by Hispanics and Natives enrolled at a public four-year institution. Findings suggest that ethnic enclaves help minority students "scale down" the complexities of the campus environment. At the same time, such enclaves provide a context for everyday action that helps make college a more fulfilling experience for minority students. The results, then, tend to support the prevalent view that ethnic enclaves in higher education help retain Native students.

Padilla and Pavel (1992) used data from the same interviews to examine the role of advising in academic integration. They found what others have found, namely, that the quality of advising varies considerably. Students indicated that (a) advisers they chose ("surrogate advisers") and (b) advisers who were ethnic matches ("designated minority advisers") were more effective than assigned advisers not ethnically matched with the student.

Effective advisers undertake many activities helpful to students. For instance, they not only approve programs of study and course selection, but also serve as advocates, mediating on the students' behalf. They also provide information from an insider's perspective, including advice about job and career choices. Effective advisers understand their advisees as people, and they interpret their roles on that basis. Clearly, students value the rapport established with effective advisers.

## CONTINUITY WITH THE K-12 SYSTEM

Achieving equity in participation and graduation also depends on maintaining continuity with K-12 schools. Two recent national studies conducted by the Center for Indian Education at Arizona State University (Swisher, Hoisch, & Pavel, 1991; Swisher, Pavel, Hoisch, & Concho, 1992) indicate the importance of continuity with K-12 schools.

These studies indicate that the Native high school dropout rate is declining. Parental involvement, belief in the relevance of education, community-based curriculum, appropriate teaching styles, caring teachers and administrators, and holistic early intervention programs contribute to the decline in the rates at which Natives drop out of high school. Postsecondary institutions should consider undertaking parallel efforts, thereby cultivating some element of consistency in the Native student's educational experience.

## CONCLUSION

This nation can significantly increase Native student postsecondary participation and graduation in the 1990s if policymakers, educators, and communities attend to issues such as those brought to light in this Digest. Along with improved sampling of Native respondents, researchers, in particular, need to develop indicators to assess progress towards equity in access and achievement. Their work can help hold institutions accountable to this goal. As this Digest suggests, qualitative research should augment statistical analyses of national data. Likewise, efforts to increase postsecondary enrollment and graduation must be closely linked with efforts to improve participation in the K-12 system. The research agenda must include an array of influences that promote dramatically enhanced participation of Natives in higher education.

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D. Michael Pavel teaches at the University of California, Los Angeles.

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