Part VI: First Nations Postsecondary Education: A Review

Overview

The academic literature about First Nations education, though its volume has increased over the past 20 years or so, does not define the experience of First Nations university education well from either the perspective of the student or that of the institution. We do not have a well developed descriptive literature, and our analytic traditions in this field are even less able to explain the social dynamics of the First Nations experience.

As we complete the process of surveying First Nations graduates of the University of British Columbia, we have surveyed that academic literature as well. The objective is to have a summary representation of how the demographics and issues of First Nations participation in university-level studies have been defined, described, and analyzed.

Summary

Background

The participation rate of First Nations people in higher education is less than 20% of the rate of others. At the postgraduate level the rate is even lower. At the undergraduate level more than 70% of First Nations students who begin university do not complete a degree. The current situation reflects a dramatic change since the 1960s when the participation rate was negligible. The change from "negligible" to "low" reflects a change so fundamental in all aspects of First Nations education since the 1970s that it might be called a revolution.

Prior to the 1960s the barriers to First Nations participation in education were formidable and based on legislative sanction. Surely part of the reason for the current low participation rate lies in the peculiar history of the policies of control and containment of First Nations, policies that directed the schooling of First Nations children to be oriented toward assimilation.

Significant changes since the 1970s have been (a) that currently more than 80% of First Nations people attend provincially established schools, rather than federally operated schools; (b) hundreds of First Nations now manage their own schools; (c) special university-based programs have been established in all regions of Canada, first in education and law, and also in "transition" or "compensatory" university preparation areas; (d) some First Nations communities have established tertiary education institutions themselves, some in cooperation with Canadian universities; and (e) though the teacher education programs (TEPs) established in the 1970s have educated many First Nations teachers, it appears that there is now a proportionally slower rate of increase due to growing First Nations populations.

The United States experience is cited for both comparative purposes and because the literature in this area is a continental literature; the issues are similar. One difference in the United States is the relative importance of the 24 tribally operated colleges, where a large proportion of students begin university-level study. Another difference is that First Nations tertiary education is often contextualized in a discussion that includes other ethnic minority groups, a result of legislation and regulations aimed generally at ethnic minority group equity.

The literature identifies several factors associated with success or attrition at university. A major factor is the nature of the K-12 school system, where it appears that these characteristics are widespread problems: (a) inappropriately trained teachers, teachers with low expectations of First Nations students; (b) curriculum (which appears not to be appropriate for building the academic skills First Nations people require in university study); (c) lack of or inappropriate career and academic counseling; and (d) the personal experience of racism. Other major factors are financial support for university study; family and peer support; institutional climate; and racism.

First Nations people represent the same range of career, field, and disciplinary goals as others at the postgraduate level. Financial support in graduate study is again a major factor in success. The relationship between graduate faculty and students is crucial, and departmental and institutional climate is important as a success factor.

Studies of university measures to improve First Nations university education include (a) monitoring the situation by collecting information; (b) evaluation of programs for First Nations people, which in practice creates research projects in which the substantive findings are based on descriptions of characteristics of program participants; (c) institutional evaluations and self-studies, in which characteristics of institutions are described in terms of descriptive statistics and in terms of student and alumni perceptions.

University response to statements of needs has been (a) to establish support services on campus for First Nations people; (b) to establish new academic programs for First Nations people or to modify existing ones; (c) to work with First Nations communities to offer educational programs in those communities; and (d) to modify admissions protocols, especially in First Nations-specific programs. The one descriptive term of successful institutions in attracting and retaining First Nations students is *institutional commitment*. It is often the case that successful programs are associated with the work of one individual.

The literature tends to indicate that support services work best when support personal are First Nations people themselves. There is competition among institutions in attracting First Nations staff to tertiary educa-

tion institutions, but the literature is clear that more First Nations people should be appointed to the teaching staff at the university.

The Changing Context

Change is the one-word description for both First Nations university participation and the social context in which we discuss it. The recent political context has been one in which self-government by First Nations has been widely accepted by Canadians as an inevitable consequence of applying standards of justice and equity to a new definition of the relationship between First Nations and others. Since the 1970s devolution and local control have been the policy catchwords for a federal government imperative for First Nations management of their own affairs. It would be a mistake to see this assumption of more control over their own community life as responsive to government policy. It comes about because of an assertion of moral authority and responsibility to be self-governing.

Indian and Northern Affairs Canada (INAC, 1991) says that in 1991 178 bands were at some level of negotiation for self-government, and that in 1990 74.5% of all Indian and Inuit program funding was administered by First Nations themselves (Gauvin, Fournier, & Gloade, 1991, pp. 66-67, 70-71). It appears that one of the most remarkable changes is thus devolution of control.

The fact that change is occurring at a rapid pace may cloud the issue that First Nations education all over North America continues in a state of crisis. Two major document sources are illustrative of that crisis. The first is American. In 1990 in the United States the federal cabinet secretary responsible for education commissioned a task force to investigate current dimensions and issues in First Nations education and to point out directions for change. The information published by the task force summarizes academic, political, and First Nations community responses to crises in education. Except for the aspects of education that relate to American government structures, the substantive issues that the task force identified are issues we share with Americans.

The second documentary source, the report made by the Auditor General of Canada to Parliament in 1991, illustrates the crisis nature of issues in the Canadian social sphere that have a current direct bearing on First Nations higher education (AGC, 1991). This report deals with fiscal accountability and its object was to document and evaluate with specificity the way the federal Department of Indian and Northern Affairs accounts for money. Makokis (1992) refers to this report to demonstrate that "devolution" has meant that the federal department moves already committed money to Indian bands to disburse in ways that have been externally predetermined and that there is little allowance for First Nations discretion or judgment in setting priorities.

The Auditor General prefaces his report by saying that the "Department has not been able to provide information to Parliament on how well

... money was used" (AGC, 1991, p. 17), and then raises a central issue, which Makokis summarizes this way: "it is not just a question of responsibility for the administration of money, it is the fact that a policy vacuum exists which immobilizes Indian people and Indian government" (1992, p. 3). The Auditor General pursues the rhetorical question "Who is ultimately responsible, in an environment of devolution, for meeting the needs of First Nations in health, education and housing?" and responds that the department has been unclear and confused about this basic question (AGC, p. 18). More to the point, the Auditor General challenges the Department in the clearest of terms, not only in the area of fiscal accountability to Parliament but as a prior question, in its failure to demonstrate that it has been accountable to First Nations people in meeting information and personnel needs. The report takes the department to task particularly for the failure to establish an "accountability framework" (AGC, 1992, Sections 14.43, 14.42) based on the creation of an information and knowledge infrastructure.

We summarize both the documentation of lack of policy and initiative, and the implication for university-based education for First Nations peoples: a knowledge and information base and a technological infrastructure for its management and interpretation is a fundamental requirement for self-government or "devolution," and its creation and maintenance unquestionably invokes university-based education and research in education, science, management, health care, information sciences, the humanities, and other fields. Yet no clear policy and no clear accountability have been established by the federal government for the involvement of universities, with First Nations people, to create such an infrastructure and to educate.

There is thus a crisis in policy. There is a crisis in personnel: though numbers of university-trained First Nations people have increased dramatically since the 1970s, problems of access remain. One of the major sources of the problem of access to university-level education is the continuing deficiencies and problems in K-12 education, where figures for performance and attrition show improvement but also continuing crisis. There are no precedents for these current problem issues. Thus the challenge that faces universities and First Nations communities is to collaborate in a creative address to a well-defined educational need.

The literature defines the problem issues and points to some direction for even more change.

Demographics
Making demographic generalizations about First Nations people in Canada is a complex task, and one that is sure to miss the mark in some way.

Collecting this information presents a demographer's nightmare. A complicating factor is the range of descriptive identity categories of First

Nations people in Canada; further, these identifiers are not consistent, so social, legal, and political contexts produce conflicting identifiers for the same individuals in different contexts. Chartrand's (1991) recent discussion of the historically accidental nomenclature of aboriginal people in Canada is a good illustration of why that is so, but even the several identifiers he discusses do not exhaust the list of identifying terms for aboriginal people. Some First Nations governments have resisted the collection of demographic information, which may be indicative of distrust between First Nations governments and the levels of other governments.

A broad picture of current demographic trends in postsecondary education in Canada for Treaty and Registered Indians is provided in a summary report by Armstrong, Kennedy, and Oberle (1990), in which they document an overall Indian participation rate in postsecondary education of around one third the rate of non-Indians. Compared with non-Indians a smaller proportion of Indian high school graduates go on to university studies (p. 9); only around 25% of the Indian students who begin university studies complete a degree, while 55% of the non-Indian first-year students complete their studies (p. 10). The result is that compared with Indians, "non-Indians are about ... seven times more likely to successfully earn a degree" (p. 31). Nationally the proportions of students in the various general fields of study (e.g., education, engineering, etc.) are similar in the two populations according to their report (p. 30), but an important question for which it is very difficult to find consistent data is whether this varies by region.

A major source of difference between Indians and non-Indians in both participation and success rates appears to be the difference between the populations in high school completion rates (Armstrong et al., 1990, p. 8), because when these are controlled, the figures for Indians "are much closer to non-Indian figures" (p. 31). When the authors compare the Registered Indian population with other aboriginal student populations, they document a higher participation rate among Registered Indians, but a somewhat higher success rate among other aboriginals; these authors, from the Department of Indian Affairs, suggest that the higher participation rate is due to their department's Post-Secondary Education Assistance Program (p. 37).

The figures in the study mentioned above are based on analysis of 1986 census data, and gross statistics for Registered Indian populations show a remarkable increase in total numbers of postsecondary students between 1986 (i.e., 11,170, including 5,800 at university) and 1991 (21,300, total postsecondary, Gauvin, Fournier, Gloade, & Thompson, 1991, pp. 33-39). It must be pointed out, however, that different categories of postsecondary students are included in each of these total figures. The totals represent a revolutionary increase over 1961 (60 students); and 1971 (432 students).

The off-reserve population of Registered Indians shows some differences from reserve residents and from the population at large: while 10% of the Canadian population has completed a university degree, only 2% of off-reserve Registered Indians have done so; labor force participation and income for First Nations people are considerably less than for the population at large.

Vancouver has the second largest population of off-reserve Registered Indians in Canada—slightly fewer than Winnipeg and slightly more than Edmonton (McDonald, 1991, p. 6).

The comparative figures between the 1960s and the 1980s show dramatic change. The change was so complete in all aspects of First Nations education in Canada, beginning in the 1960s and accelerating in the 1970s, that it might be called a revolution, not in the sense that it was a confrontational struggle for power, but because it seemed to be a rapid movement through a cycle to the point that the direction was opposite to what it had been. The historical background to that change is not the subject of this research project, but reference to the context of the times shortly before 1970 must be made in order to understand current patterns of access to higher education.

Historical Background to the 1970s Revolution
in First Nations Higher Education

The late Bobby Wright made a significant contribution to our knowledge of a history of Indian higher education from colonial times to the present (Wright, 1988, 1990, 1991b; Wright & Tierney, 1991). From him we know of Caleb Cheeshateaumuck, an Algonquin graduate of Harvard University in 1665, who died shortly after graduation; and of the organized system of Cherokee and Choctaw schools that thrived in the 1830s. Many students went on from these schools to further success in study at elite American universities. From his historical data Wright argues that it was the US federal government's increasing domination of Native education that eventually destroyed the initiative demonstrated in these examples, a domination which tragically inhibited First Nations peoples. There is an echo of that argument in the experience of the Brantford Institute in Ontario, a successful Mohawk-operated school that became dramatically unsuccessful within two years after the Canadian federal government took over its operation in the mid-1920s (Daniels, 1973).

Uniquely in Canada and as a matter of policy, for many of the early years of this century a Treaty or Registered Indian individual's success in higher education meant enforced "enfranchisement" and the loss of Treaty or Registered status. The history of this century's Indian policies, of which that was but one aspect, goes far to explain not only the origin, but also the persistence of current problem issues. There is a developing literature in this area, and only a representative few titles are cited here. The crisis nature of the current stress levels experienced in many First

Nations communities is well exemplified in Cariboo Tribal Council's (1991) self-study of the dimensions and effects of interpersonal and sub-stance abuse in their communities. This work points directly to the history of schooling as part of a general history of containment and control as a cause of community stresses. Ing (1991) presents a cogent argument about the current and lasting effects that the residential schools had on the process of parenting; Bull's (1991) discussion of Alberta residential schools includes archival evidence of the nature of such residential schooling, and by pointing out school administrators' characterizations of Indians goes some distance in explaining the motivation and justification for repressive practices. A large bibliography about residential schooling in Canada and the US is included in Urion (1991). The residential school is only an aspect of the origin of the problem; acknowledging that some people look back to their experiences there with appreciation for the opportunity to learn, it appears that on the whole the history of Indian residential schooling demonstrates that the Canadian social and political contexts that allowed for the maintenance of such institutions were generally repressive, and that individual access to higher education was purposively inhibited. It is clear in the literature that for most of this century there have been regula-tory and legislated inhibitions *against* pursuing higher education in Canada.

It would be a mistake to interpret reference to the historical literature only as a background statement or as a token of comprehensiveness of treatment. The policies of repression and restriction of access refer not only to the generations who were young in the early part of this century. The generation that might be expected now to provide leadership and direction in institutional access to higher education are those First Nations individuals who are currently in their 40s and 50s. The educational system through which this cohort of First Nations peoples were processed was perhaps even more obviously restrictive than the system of earlier times. During the 1950s and 1960s, when this group was young, the level of education of other Canadians was increasing, economic and educational expectations were increasing, formal educational requirements in employ-ment were higher, and communications and contact had improved so that disparities between First Nations people and others could be more easily observed; yet the formal, institutional, and policy inhibitions were still there as barriers to higher education.

Joseph Dion (1888-1960), the Cree statesman, wrote an account of his experiences in the late 1910s—his certification as a teacher and subsequent establishment of a community controlled school—which illustrates the nature of the struggle during an earlier era (Dion, 1979). There is a need for a case-history literature on which to base generalization about the more recent era: the account of the efforts of individual First Nations people to enter higher education, from the late 1930s to the early 1970s, is a literature

that we should be producing now. There is little published in the way of life-history data and case study about the relatively small cohort of people who faced entrenched bureaucracies, restrictive policies, and negative attitudes, to become involved in higher education. Though the scant published literature is largely anecdotal or adumbrated, anyone working in this field knows of a number of individuals—teachers, principals, lawyers, academicians, health care professionals, social workers, scientists, and others—whose often unremarked achievements for First Nations access in the face of great odds are, without exaggeration, heroic. The nature of their struggle was aptly characterized in an informal interview in 1983 with Michael Dorris, who directed the establishment of Native studies and First Nations access programs at Dartmouth College in the 1970s. Speaking of the scope of the issues involved in access, the intractability of some of the problems, the limited personnel resources available, and the personal commitment required of those who worked to promote First Nations access in education, he reflected on the personal costs involved, and spoke especially of those whom he said had worked themselves to death in this field during the 1970s and early 1980s.

Building on the Changes from the 1970s
There are hundreds of accounts in the literature of the political and educational foment of the early 1970s that created the change. Many authors writing about First Nations education feel it necessary to make an almost formulaic statement of the history of the events of 1969, 1971, and 1973, and this pattern may indicate a major problem in the academic literature in this field. This formulaic expression of those events and outcomes provides for a canonical and orthodox interpretation of those events, a posture that might obscure critical analysis of the standard perception of a sequence of action and reaction (e.g., the federal government's proposal for assimilation, "the White Paper"; First Nations response, "the Red Paper"; protest, e.g., sit-ins, demonstrations at schools and offices; and Jean Chrétien's statement of a government policy of local Indian control of schools).

In terms of outcomes, the formula also generates a context for some ambiguously defined catchwords of the field (e.g., *local control, community involvement, bilingual and bilingual education,* and *culture conflict*). The formula is repeated consistently in the literature to contextualize almost all orders of discussion in this field. This repetition may demonstrate a major problem in the literature, that despite the volume of it, the literature is neither well developed nor cumulative. It is on the one hand particularistic, with a wealth of local description interpreted in the light of competing low-level theories (e.g., low achievement related to self-concept); on the other hand, it is typified by sweeping and global argument (e.g., low achievement a symptom of a larger malaise that will be remedied by

various interventions to bring about "empowerment"). It does not seem to constitute an academic tradition.

The formula from the literature is not repeated in this review, beyond the restatement that things changed fundamentally in the early 1970s.

Several Canadian universities and some colleges became involved in special programs for First Nations students in the early 1970s. The programs were defined as special in terms of any of the areas of (a) admission and recruitment; (b) counseling and other support resources; (c) location, in that some were established away from main campuses; and (d) program course content. The success of those programs must account in some measure for the increase in demographic indicators of university access. Law and education were the disciplinary fields in which the first special content programs were established. The University of Saskatchewan program in law, with the collaboration of other law faculties in Canada, has been important to the increase in First Nations lawyers.

Several universities and colleges established First Nations student support programs in the mid-1970s, such as the one described at the University of Manitoba by Hurlburt (1984). Between the mid-1970s and the early 1980s a pattern of address to postsecondary educational issues for First Nations people involved "additional counseling, use of distance education and satellite campuses; college introductory and orientation programs" and revisions in patterns of providing student aid, but it is unusual to see such directions justified by and founded on research results, as Lee (1983) attempted to do in a report for the Manitoba Department of Education.

The Teacher Education Programs (TEPs) that were begun in all regions of Canada have been crucial to the increase of First Nations teachers and to the increasing number of First Nations people involved in postgraduate programs and research in education. Twenty of them were established (More, 1980; Lawrence, 1985). Late in the decade, More and Wallis (1979) distinguished three kinds of programs, (a) programs that provided entry to existing on-campus programs; (b) programs that were modified from regular programs on such bases as practica and First Nations content courses; and (c) community-based programs in which there was significantly more First Nations control. The distinctions were more abstract than real in some programs; Project Morning Star at Blue Quills School in Alberta (Read, 1983) incorporated aspects of all three of the categories, as did NITEP at the University of British Columbia (Archibald, 1986). All of the western Canadian universities and several in Ontario, Quebec, and the Maritimes became involved in these or comparable programs in the 1970s. By 1970 they had produced 369 degreed and 725 certificated teachers, and in 1985 there were 885 students enrolled in TEPs in Canada. Wyatt-Bennon (1991) provides a summary comparative evaluation of Simon Fraser University's three off-campus programs, and Pepper (1988) provides a

comprehensive summative evaluation of UBC's ongoing NITEP. Wyatt-Bennon points out that, despite the success of the programs "if employment of First Nations teachers were proportional to numbers of First Nations students [in British Columbia], we would need nine times the current number of [First Nations] teachers" (p. 68).

The 1970s saw a number of specifically focused ad hoc programs either at universities or at colleges. Some of the college programs were oriented specifically toward university transfer. This pattern of programming continues. The range of focus and content of specifically focused programs in First Nations higher education is wide. Some examples are cited here from public statements of need, program proposals, and from information about programs now operating or in some cases defunct: there was a program in journalism at the University of Western Ontario; in agriculture at Lethbridge Community College ("Indian reserve puts the push," 1992); access programs in medicine at the Universities of Manitoba and Alberta (Krause & Stephens, 1992); statements of need for programs in banking ("Bank pledges Native focus," 1992) and engineering ("First Nations need native engineers," 1992); a program in museology and curatorship at the University of Lethbridge ("Program provides funding," 1992); a Micmac Bachelor of Social Work program at Dalhousie University (Smith & Pace, 1987); the University of Lethbridge's Centre for Aboriginal Management (Purvis, 1987); the University of Lethbridge's Four Worlds Development Project in education and community development (Mazurek, 1988); a cooperative program between UBC and Camosun College, the Sencoten Immersion and Language Training Program (Simcoe, 1992); and a program in nursing at Lakehead University (Lakehead University, 1987). These examples may not even be indicative of the range. Better public access to information about programs in Canada is needed, perhaps through the creation of a directory.

The demographics of First Nations education demonstrate why discussion of university access and higher education is more closely associated with general adult education, college, and vocational education than for the population at large. There is probably more literature about vocational, paraprofessional, certificate, and college-based programs for First Nations peoples in Canada than about university or preuniversity college studies. Yet it is surprising, given the number of the programs that exist, that there is so little in the way of description or documentation about such programs. The literature about university preparation programs is equally misrepresentative of the number of university-based or college-affiliated programs that exist.

Some typical examples of the discussion of vocational and paraprofessional postsecondary programs, as reflected in the Educational Research Information Centre database, are noted here. The Ontario Ministry of Skills Development (1991) established a set of guidelines for training First

Nations people in construction work in response to needs identified by the United Council of Chiefs of Manitoulin. Another example of provincial involvement in First Nations postsecondary education is the report of a private sector committee in Manitoba, which advised the provincial government to strengthen its community colleges and to develop a Native education and training strategy to better address the postsecondary needs of Canadian Natives (Manitoba Department of Education and Training, 1990). A community-based two-year certificate program for school counselors in Manitoba is described in MacKenzie and Beaupre (1986). Using Alberta and the Northwest Territories as an example, Murray (1985) argues that a major problem in vocational postsecondary programs for First Nations people is that funding is inequitable.

Ward (1986) describes a problem in postsecondary educational assistance to argue that during the period of initial increase in First Nations participation in postsecondary education (i.e., between 1972 and 1982) the federal government's unilateral decisions about funding of postsecondary education had an inhibiting effect on the increase.

Another aspect of change was the founding of Native studies departments. Some of the first were at Dartmouth College and the University of Minnesota in the US, and at Trent University and the University of Lethbridge in Canada. These departments survive, and there are now several more in Canada (e.g., Brandon, Alberta, Manitoba, Saskatchewan); many in the US failed. One reason for the failure was lack of continuity of funding, but an even more serious problem had to do with mandate: there was an unexamined assumption that academic address to Native issues in a special department promoted First Nations access. The failure to distinguish between the operational objective of access and the intrinsic academic value of Native studies meant that many of the departments lacked definition of purpose.

Focus on First Nations issues in higher education and on First Nations students is sometimes reflected in statements of institutional mandate, as is the case with Saskatchewan Indian Federated College (SIFC) in Regina, and the mandate proposed in British Columbia (e.g., "Northern chief," 1989). The case of SIFC is special and exemplifies yet another area where an impact began in the 1970s in First Nations postsecondary education in terms of First Nations control and administration of tertiary education institutions. SIFC is unique in its range of programs and the mandate it has received from both First Nations governments in Saskatchewan and the government of the province.

The establishment of SIFC represents a First Nations movement toward the creation of cultural colleges in the mid-1970s. These colleges, operated by individual First Nations governments, are local manifestations of the same imperative to First Nations management of higher education. The Canadian literature does not reflect current conditions in this

area as documentation or discussion in the Canadian record about First Nations-controlled postsecondary institutions and cultural colleges is scarce. These institutions often broker university courses and create university-level courses on their own, though only SIFC presently offers complete university programs. SIFC is cited as an exemplar for the future by the Assembly of First Nations in its statement of the current condition of First Nations education.

AFN's Summary of Current Issues
There is no single comprehensive review, description, or analysis of the current state of First Nations postsecondary or university education in Canada. An important general summary statement of current conditions and needs was made in *Tradition and Education: Towards a Vision of Our Future*, published by the Assembly of First Nations in 1988 (Charleston, 1988). In the context of general problem issues in secondary education (e.g., dropouts, continuing education, special education) the Assembly notes the inappropriateness of current programs in several areas of technical and vocational education, and some of the areas mentioned (e.g., forestry, agriculture, animal husbandry, Vol 1., pp. 90-91) have implications for university and college programming. The issue of First Nations jurisdiction and involvement in postsecondary educational governance and administration is discussed (Vol. 1, pp. 92-93) in the context of the note that SIFC is "the only First Nations controlled postsecondary institution presently granting degrees" (in Canada). The AFN report uses SIFC as a model and raises many central issues in university-based education in the recounting of a summary history of the development of the college (Vol. 2, pp. 62-70).

The general issues, from the first volume of AFN's report, are summarized as positions articulated by AFN, both because theirs is the most comprehensive statement of the issues in the literature, and because, insofar as there is a common First Nations perspective about university education, AFN's summary is the most clearly indicative of it:

- Most First Nations people with postsecondary education are working directly or indirectly with other First Nations peoples.
- Tertiary education should be oriented toward competency in areas reflected in the current job market.
- A continuing priority need is for university-trained First Nations teachers.
- There is a need to develop postsecondary curriculum that is in fact relevant to First Nations people in several areas, particularly in areas where there are culture-specific considerations (e.g., communications methods; teaching techniques).
- The area of First Nations languages is of special concern: the nature of the relationship of First Nations languages to First Nations communities has to be taken into consideration in developing

language-related programs; an extraordinary need exists for the training and certification of teachers of First Nations languages.

- More university-based teacher education programs are needed, but so are "satellite" and "extension" programs in First Nations communities.
- Lack of good counseling and guidance at the secondary level have created a requirement for especially good counseling resources at the tertiary level.
- First Nations need an information sharing network for developing and dealing with postsecondary education issues, and other mechanisms whereby they can work cooperatively.
- Financial support for First Nations students in tertiary education must be improved, with a high priority placed on such support; the AFN takes the position that postsecondary education is an aboriginal right, and that funding for individuals should be administered by individual First Nations (Charleston, 1988, pp. 92-99).

The American Comparison

The situation and the issues. The standard sources of literature do not reflect what is actually going on in Canada. A more comprehensive picture of First Nations postsecondary education in the United States is reflected in the customary literature sources, but it is possible that even with its comprehensiveness it does not adequately document the present American experience, and Wright (1991a) comments on the unavailability of accurate demographic data. The general comparison with Canada is that the change between the 1970s and 1980s was somewhat more pronounced in Canada than in the US, where the increase in the number of First Nations peoples enrolled in university-level studies doubled during the decade. The total number of degrees awarded to First Nations people between 1976 and 1981 increased by 8% (Fries, 1987). Wright says that now 6% of American Indians have college degrees, as compared with 23% of the rest of the population (and as compared with 2% of First Nations people in Canada), and notes a decrease in full-time attendance by First Nations college and university students: 38% were attending part time in 1976, and now the figure is 52%. Most (54%) of the students enrolled in 1984 were in two-year colleges, not universities. In the total US population, 67% of the population over 25 years of age has completed high school compared with 56% of American Indians and 46% of Alaskan Natives (Hillbrant, Romano, Stange, & Charleston, 1991). There are indications of greater access, both proportionally and in absolute terms, than in Canada: for example, of the approximately 900,000 baccalaureate degrees awarded in the US in 1978-79, 3.4% were awarded to First Nations peoples (Brown, 1982; Deskins, 1984).

Nichols (1991) says that the lack of reliable information is a tremendous hindrance to evaluation and the definition of new directions, and points

out that the need for a national database—still unrealized—for First Nations education has been discussed since at least 1928.

The infrastructural support for the college and university system, as well as individual state and federal agencies, appears to have a more comprehensive data gathering apparatus than Canada, however. It has not been customary in Canada for many universities to keep records distinguishing First Nations people from others, so reports such as those created by Association of Universities and Colleges of Canada (e.g., AUCC, 1985) provide little information about First Nations access and retention. Tabular or proportional data are published in the *Chronicle of Higher Education* (e.g., Staff, 1988; "Racial and ethnic makeup," 1986) and in reports of the Center for Education Statistics in Washington (CES, 1985a, 1985b, 1988a, 1988b). The legal context for minority education is different in the US and it appears that the information that is collected about minority education is for the purpose of recruitment and monitoring overall success of affirmative action programs. The data are often summarized in comparative terms on the bases of population proportions, so it is possible to find such statements as that by the staff of *Change* ("Minority access," 1987), in which it is stated that Hispanics are less well represented in higher education than Indians.

Surveying a 10-year period (1975-1985) with data from all accredited universities and colleges in the US, in addition to figures for participation and completion, Fries (1987) found data on American patterns of university employment: 60% of the American Indians employed full time by universities and colleges were support staff, 19% were faculty, and 6% worked in administrative and managerial positions.

The literature reflects a salient difference between Canada and the US in that the perspective of a significant portion of the American literature is one of First Nations higher education in the larger context of inequity associated with ethnic minority status generally. First Nations peoples are considered along with other major population categories (Black or African-American, Hispanic or Latino, Asian, Pacific Islander, "immigrant," and such circumlocutive American categories as "white non-Hispanic"). This perspective surely obscures some of the issues, in that there are not only historic and legal differences between the groups, but qualitatively different life experiences that one would expect to see reflected even in a generalizing literature about Indian higher education.

Despite the observation that the database is inadequate, and despite the contextualization of discussion about First Nations higher education within the general topic of minority group education, there are more published and unpublished sources of information and discussion about First Nations higher education in the US, and its scope is more comprehensive than Canada's. A major watershed of recent information and opinion is in the documents that archive the activities and information

gathering of the Indian Nations at Risk Task Force (INARTF), a commission that was established by the American Secretary of Education in 1990. The task force commissioned papers, invited written submissions, and held regional hearings for local input at several places in the US.

The large (445 pages) report of the regional hearings reflects concern for a broad range of issues that affect postsecondary university education (INARTF, 1990c).

Administrative issues of concern include:

- levels of government funding;
- coordination of effort of federal, state, and tribal governments;
- teacher training;
- postsecondary student financial aid;
- the role of tribally controlled colleges;
- postsecondary student recruitment;
- the place of special services for students; and
- the issue of research and data collection.

Substantive issues include:

- postsecondary readiness;
- student persistence;
- problems in standards and testing;
- program content and interna (including the place of First Nations languages and culture); and
- the First Nations experience of racism on both the institutional and personal level in educational settings.

The document includes a variety of statistics indicating the scope of the issues involved.

Another substantial report (231 pages) that the Task Force has published comes from the joint session it held with the National Advisory Council on Indian Education in San Diego in 1990 (INARTF, 1990f). One of the implications of this discussion for higher education comes from the evidence presented that the K-12 system has failed to prepare students for postsecondary education: the argument is emphatically supported in this document that First Nations postsecondary education cannot be discussed in isolation from either the still astoundingly deficient K-12 system or the social context of Indian life in America.

A good source for review in a kind of *Reader's-Digest* perspective of the Task Force's commissioned papers is the short work edited by Cahape and Howley (1992), in which these papers are summarized. Wright's (1991) commissioned paper on postsecondary education is summarized (Cahape & Howley, beginning on p. 93) in the context of other papers dealing with decreasing spending on Indian education since 1975 (p. 17) and the student retention problem in K-12 (p. 42). Wright evaluates Montana State University, Northern Arizona University, and Clarkson University as models for "noteworthy programs aimed at providing comprehensive

support for Native students" and that "common characteristics of [noteworthy programs] originate in a strong, ongoing commitment, often led by one influential administrator" (p. 95). He says that the general problems in First Nations postsecondary education are "inadequate academic preparation, insufficient financial support, very few available role models, and an unsupportive institutional climate," and says that some characteristics of university programs that are successful in First Nations postsecondary education are "collaboration with Native communities, an emphasis on precollege programs, enhanced financial services, and strong student support services" (p. 95).

The 1980s seems to have been a time for increased discussion and research about American Indians in university. Early in the decade the American Indian Studies Center at the University of California at Los Angeles devoted its annual conference on American Indian issues to the identification of issues in American Indian higher education (American Indian Studies Center, 1981). Guyette and Heth (1983) completed a survey of 107 academic programs for First Nations people in the US and compared the range of programs to the range of expressed needs. The categories of needs were defined by surveying 119 First Nations communities and interviewing 30 senior students. They documented the institutions' problems as being financial, and the students' problems as being lack of preparation for university study and problems with "cultural pressures," which they said had its most negative effect at PhD-granting institutions. They noted that the fields to which the programs were oriented (education, art, history, and counseling) did not cover the range of needs expressed by the communities (business, counseling, medicine, and law).

Cloutier (1984) included First Nations people in her comparison of patterns of access along minority ethnic and gender lines at the University of California, Los Angeles (UCLA) and Laval University in Quebec, in order to find factors that restricted access along gender and ethnic lines. Other fairly recent American work that deals with Indian postsecondary education in general terms include Carter's and Wilson's (1989, 1991) demographic comparisons and assessments of trends of enrollment of Hispanics, American Indians, and Blacks in college and university programs; and a longitudinal study of almost 400 Indian students to identify factors that led to retention: (a) family background; (b) postsecondary intentions both before and during attendance; (c) "formal and informal" academic integration; and for beginning students, (d) academic and personal skills and abilities; and (e) prior schooling (Pavel, 1991).

Another comparison between institutions provides a valuable collection of imperatives: for a three-year period, Richardson and de los Santos (1988) compared 10 predominantly white tertiary education institutions that have had good records and comparatively more success than others in attracting and retaining American Indian, Black, and Hispanic students.

From this comparison they were able to derive a statement of 10 principles for institutions as follows:

1. announce institutional priorities (elimination of racial disparity in access);
2. back those priorities with funding over 10 or more years;
3. employ minority group leaders;
4. track institutional progress;
5. provide comprehensive support services;
6. emphasize quality;
7. reach out to schools and community institutions to raise aspirations and to improve academic preparation;
8. bridge the existing gaps in preparation with programmatic approaches to tutorial, laboratories, study groups, etc.;
9. reward good teaching and diversify the faculty, especially in the cultivation, through mentoring of junior minority staff and graduate students, of minority professors;
10. eliminate racism: construct a nonthreatening social environment.

The discussion of American-specific issues in minority education is often consistent with the Canadian literature, for example, Wells and White's (1990) argument for the need for community involvement, which is included in a wider range of papers collected at a major conference on minority university education. Additional American-specific issues discussed in the literature are (a) an American social system with a reduced commitment to equality in education—described as a "growing national indifference" in a discussion by Tijerina and Biemer (1988) in their article "The Dance of Indian Higher Education: One Step Forward, Two Steps Back"; and (b) reduced financial commitment to American Indian university education by the American federal government, discussed in Wiley (1989). This reduced financial commitment to First Nations education was a subject discussed by in a US Congressional hearing on the role of predominantly Black colleges in 1990 (Congress of the United States, 1990).

Tribal colleges. Barnhardt's (1992) discussion of three varieties of institutional arrangements in First Nations tertiary education is similar to the More and Wallis (1979) categorization of Canadian TEP programs: independent institutions under First Nations control, affiliation arrangements between First Nations institutions and dominant society institutions (such as SIFC's affiliation with the University of Regina), and programs integrated within dominant society institutions. The concept of tribally controlled colleges is not new, as Wright's work, cited above, shows that such institutions were established at least as early as the 1830s. The movement to establish new tribal colleges in the US began in the 1950s and accelerated in the 1970s, most of the 24 now in the United States are struggling with underfunding, but providing programs in tertiary education that the communities see as vital (Houser, 1991b; Wright, 1986). An association of

such colleges includes several of the Canadian First Nations cultural colleges. A new journal, *Tribal College: Journal of American Indian Higher Education*, focuses on tribal colleges and deals with such issues as the role of the colleges in self-determination (Bad Wound, 1991; Barden, 1991), the nature of First Nations adults' learning styles (Conti & Fellenz, 1991), the incorporation of traditional values in administration (Houser, 1991), and practical issues such as budgeting (Shanley, 1990) and federal funding issues (Shanley, 1991). Stein (1986) describes tribally controlled colleges in terms of their history and development, their multiple roles and objectives, program interna, and their contribution to the enhancement of First Nations cultures and languages. Expectations of the tribal and cultural colleges are high and resources are limited (Duran, 1991; Houser, 1991a, 1991b; Isaac, 1980; Wright, 1987, 1989).

Regional studies and specific fields. There is quite a range of somewhat more specific and local treatment of general issues in American Indian postsecondary education. Beaulieu (1991) holds Minnesota as an example of successful integration of state government into First Nations postsecondary education, through preparation and scholarship programs. Newell and Tyon (1989) discuss job placement of First Nations tertiary education students.

Some reports deal with the place of minorities, including American Indians, in specific fields. The relative standing of minorities and women applying for and completing postsecondary education in the health professions was the subject of a report by Health Resources Administration (1984). Cummings (1984) describes the efforts of the College of Engineering at the University of New Mexico to identify promising minority students, including American Indians, in basic algebra courses, and the encouragement provided to such students through orientation, tutoring, counseling, and support programs, with the object of achieving ethnic parity in the field of engineering.

The Colorado association of executive officers in higher education had Ford Foundation sponsorship to survey eight states (New York, Arizona, California, Colorado, Illinois, Massachusetts, Tennessee, and Montana) to evaluate the current structures of minority participation in higher education and programs established to improve the current position of inequity. The report documents a critical research need for continuing assessment of the situation, observes that Indians, Blacks, and Hispanics have not been served well in higher education, discusses some of the reasons why this is so, and summarizes the kinds of concerted and coordinated efforts for change that must be made by all agencies involved (Colorado Higher Education Executive Officers' Association, 1991).

The State University System of Nevada (1988) reports the results of a task force on minority tertiary education, documenting a declining proportion of such enrollments since 1985, and recommending (a) articulating

a written policy promoting recruitment, admission, and retention of Black, Asian, Hispanic, and American Indian students; (b) increased personal, academic, and financial support programs; and (c) continued task force involvement.

Indians were included as a minority category in California's study of 10-year trends, 1974-1984 (California Postsecondary Education Commission, 1985, 1986, 1987). An unpublished comprehensive paper by Martinez (1985) analyzes minority university enrollment in terms of demographics and social contexts in California, to point out the unfavorable position of Hispanics and American Indians with respect to other minorities. A compendious report and guide was created at California State University, Long Beach, giving 1980 minority census data as background, and focusing on minority student postsecondary enrollment patterns and problems, the objective being to inform affirmative action recruitment (California State University, 1983; for an example of a negative perception of affirmative action in California, see Bunzel, 1988). A survey of community college students in California showed fluctuating rates of transfer to four-year colleges for other minority group students, but general increase, while American Indian transfers from community colleges remained constant over the five-year study period (California Community Colleges, 1989).

An earlier report of hearings held by New Mexico State Board of Educational Finance (1984) documented recommendations from university and tribal leaders to improve Indian postsecondary education by affirmative action, the funding of recruitment and retention programs, improving teaching about Indian issues, and providing off-campus programs.

Comprehensive data about American Indian enrollment is contained in the State of New York's reports on minority enrollment and graduation during the 1980s (New York State Education Department, 1984, 1988, 1989). The state also issued a report on minority employment within the system, which shows the relative place of American Indians on staff (1989). Attention has also been given to the substantive issues surrounding the broad picture of problems in access and retention painted by the demographic data, as in Zwana's (1988) *From Problems to Solutions*, published by the African American Institute of the State University, Albany. New York also publishes a description of a program that assists American Indian and other minority students in private colleges and universities in the state (New York State Education Department, 1991).

Three publications by the Arizona Board of Regents illustrate that state's efforts. In the first, a "research guide" details the kind of data to be collected in state self-study of retention and persistence of minorities, including First Nations students (Cotera, 1988). One of the reports of the Regents' task force that looked at minority student retention is a bibliog-

raphy of practical sources, edited by Cowart et al. (1988), and it includes another article by Fries that compares patterns of Native American access and retention during two periods in the 1970s and 1980s. Another one of the Regents' Task Force documents is unusual in that it focuses on student performance data (Cotera et al., 1988), and yet another documents the universities' efforts to attract and retain American Indian and other minority students (Wood, 1988).

Other states that have published reports describing American Indian enrollment are Connecticut (Connecticut State Board of Higher Education, 1983), Maryland (Schwalb & Sedlacek, 1988), and Massachusetts (Dulac & Vasily, 1987, Massachusetts Board of Regents, 1987). Colorado's 1987 report, in addition to discussing the demographics of Indian higher education in the state, raised the concerns of institutional response to the issue of minority retention, the academic climate for minority students, and the ambiguous area of values that are described in connection with student culture (Mingle, 1987). Mingle and Rodriguez (1990) edited a report that includes recommendations for improvement in Colorado. The Texas Higher Education Coordinating Board (1990) publishes reports on annual conferences it sponsors to discuss attracting and retaining Black, Hispanic, and American Indian students.

Another feature of the American literature is the inclusion of information packages. For example, New Mexico State University publishes a booklet telling of a variety of sources of financial aid for American Indian postsecondary students (e.g., Willie et al., 1985; Tsosie & Cherino, 1984); similar information for New York is included in Johnson (1985) and a national guide was compiled by Young and Hicks (1989). The Heart of the Earth Survival School in Minneapolis has published resources, including placement tests, to aid in career and education choices (HESS, 1985; American Indian Career Exploration, 1985), and the Indian Health Service has an explanation of postsecondary scholarship programs available (IHS, 1985).

In the following sections of this review, Canadian and American literature are treated as a continental literature. The first reason is that many of the issues are the same. The second is that the traditions in the literature are in fact continental. A good illustration of this is in the distribution and content of the two major journals in First Nations education, *American Journal of Indian Education* and *Canadian Journal of Native Education*. The Canadian journal published 48% of all articles about Canadian First Nations education in academic journals during the 1980s, and 17% of all the articles published in North America during that time about American Indian education—a figure for the American literature that is roughly equivalent to the American journal. Canadians subscribe to and contribute to the American journal, and Americans to the Canadian journal. They have roughly equal distributions and both, for example, are promoted by

the American Indian Education Association. The contexts for discussion are, of course, somewhat different but the similarities appear to have been more compelling in the formation of the literature.

In both countries the major impact on access to higher educational opportunity is from the nature of the schools that offer K-12 instruction, and in both countries the general perception is that the schools have failed.

School Failure and First Nations Higher Education

The schools have been seen to create inequity, not diminish it, so a major current in the literature is a discussion of the nature of elementary and secondary schooling in both historical and current perspectives. Second, that description is contextualized in the general social climate in which K-12 schooling takes place.

The literature describes this in macrosystemic terms and so generalizes about large-scale social dynamics. Two major problems result from this generalization. First, even in the reporting of local circumstances, the literature sometimes loses the perspective of diversity among and within First Nations groups. Second, the large-scale description of problems is, of course, in terms of social dynamics and population parameters, and it is possible to forget that we are describing and reporting the lived experience of individual human beings.

There was not much in the way of literature about First Nations K-12 schooling until the 1960s but it began to grow in the 1970s and now constitutes a huge, even monumental, body of discussion, research reporting, essay, and imperative. For purposes of this review, a selection criterion for that literature is how closely a theme about K-12 schooling is related to tertiary educational outcomes. A few general observations initially contextualize those themes in the general area, and then examples of literature that deals with the themes are presented.

1. The first observation is that there is a complex, deep-seated, and widespread problem in K-12 education in First Nations communities, and that though the structures involved in First Nations schooling have changed dramatically in the past 20 years, it is a problem of very long standing.

2. The second observation is that the complex problem is one of a number of problems that face First Nations peoples: many First Nations communities, including the large urban communities in Winnipeg, Vancouver, Edmonton, Calgary, and Toronto, are communities under uncommon stress. The history of schooling in First Nations communities demonstrates that education has historically contributed to the creation of the stresses and problems.

3. The third observation is that the historical origins of the problem must be understood in order to change. In summary terms, government policies between 1870 and the recent past can be characterized as focused not on development but, first, on containment of First Na-

tions peoples and communities; second, on control of those communities; and only recently on accommodation of those communities in a broader Canadian society. The history of First Nations schools reflects these priorities, dramatically so in the history of residential schooling. This perspective seems to be deeply ingrained in the literature and may be one of the reasons for the formulaic historical introduction to so many articles and books.

4. The fourth observation is that the literature reflects a long history of First Nations' assertion of the *right* and the *responsibility* to control their own schooling, and of negotiation for such local control; and further, that beginning in the early 1970s local control became one of the single most important issues in First Nations education. The issue of local control is now related to the broader issue of self-government as an inherent right.

5. A fifth observation is one of bias. The historic exclusion of First Nations peoples from the formation of formal education has resulted in a foundation and superstructure that have been biased against First Nations precepts and custom in curriculum, testing, protocols, and administration; the retention of the acculturation model in academic address to those issues has resulted in alienation of First Nations interests in the articulation of research questions. And finally, the bias is seen in face-to-face interaction in that we live in a society where First Nations people often experience racial bias on university campuses as elsewhere in society on an individual level.

Several of the Indian Nations at Risk Task Force sources reflect a wide range of salient aspects of the general state of affairs, including discussion of wider community factors (INARTF, 1990a, 1990b, 1990c, 1990d, 1990e, 1990f). For example, in the joint sessions with the National Indian Education Association, high unemployment in First Nations communities was cited as an inhibiting factor in school completion, directly related to access to tertiary education, and the National Advisory Council on Indian Education told the Task Force that substance abuse and suicide prevention were important areas in K-12 education. The range of problems in K-12 that influence university access and that are reflected in the Task Force's hearings is much wider:

- declining numbers of First Nations students in teacher education;
- test bias at all levels, including for university admissions, a premise that is fairly widely discussed in the literature;
- inadequate preparation in secondary schools, to the point of lack of basic academic skills;
- inadequate career guidance and counseling in secondary schools;
- exclusion of parents from involvement in educational decision making;
- the need for higher employee standards in federally operated schools;

- the need for First Nations advocacy for First Nations students in public schools, particularly for special needs students such as gifted and handicapped;
- teachers: low expectations of First Nations students and self-fulfilling prophecies in performance; lack of teacher accountability;
- stresses in student transition from First Nations schools to public schools;
- lack of specificity in preparation for vocational versus academic postsecondary experience;
- a curriculum that alienates First Nations students through its exclusion of First Nations concerns or inadequate treatment of those concerns;
- curriculum that is not sensitive to the cultures of First Nations; and
- lack of attention to First Nations-specific learning styles.

The literature generally reflects these and other areas as problematic. The phenomenon of dropping out is central to this discussion, especially the high dropout rate that begins at the late middle school level and accelerates to late high school. Steinberg et al.'s (1982) discussion includes a large literature review of this phenomenon, and makes the summary judgment that the factors can be summarized as the current schools' production of a negative self-concept in First Nations children. Coladarci (1983), in a study in Montana, says that the dropout rate is a function of irrelevant curriculum and perceived teacher indifference to First Nations students. Rehyner (1991) goes beyond a specification of the causes of dropping out to recommend the kinds of changes that are needed to retain students in secondary schools: he says that large schools have to be re-structured so that teachers can come to know students; there should be active recruitment of teachers who demonstrate that they are caring enough to spend time with students, and to learn from them; the curriculum has to speak to the Native experience; testing should be diagnostic, not focused on streaming students; and parents must be given their rightful place in ensuring that the kind of education that is provided will strengthen the family, not weaken it.

The reductionist explanation for the dropout phenomenon is that of culture conflict. Wilson (1991) describes a Manitoba school in a larger white centre where secondary students transfer after successfully completing middle and elementary school in a band-controlled school on a reserve. The modal pattern is to drop out, and Wilson says that it is because of unresolved culture conflict. This is also the explanation that Giles (1985) provides in her study of Indian high school dropouts in Milwaukee, Wisconsin. In a study that inventoried values and attitudes of students and dropouts, she says that it is the more "acculturated" students who experience most success in schools.

The theme of culture conflict is pervasive in the literature that deals with K-12 schooling, hardly less so in the literature on postsecondary

schooling. One problem with the concept is that it is based so fundamentally on a doctrine of cultural determinism, a concept that no longer has much currency in anthropology, the discipline that gave the concept to educationists. The conceptual problem with the idea is not just that the premise of determinism has never been demonstrable, but that the construct adds no explanatory power to a description of a situation. Another problem is that the remedy for culture conflict is even more problematic than its definition; and yet another problem is that because it puts the explanation in the abstract realm of "culture," it exculpates those who maintain biases and supposes that the "conflict" is inevitable.

Many local examples of community stresses impinge on successful K-12 completion. Some of them are described for the Northwest Interior tribes of the US in reports of hearings before the US House of Representatives Select Committee on Children, Youth, and Families (Congress of the United States, 1986); for Northern Canada by Griffiths (1987), who discusses Northern youth, poorly served by a welfare system and a juvenile court system imported from the south, and youth who have had to leave home for secondary education and who then face alienation and crisis; and for the Northwest Territories by Hall (1986), who describes 90% of the youth of the Territories as dropouts from secondary school. Smith (1983) exemplifies negative aspects of the situation of urban First Nations children in his description of their experiences in Detroit.

Bias in testing in K-12 is cited as a contributing factor in failure by Dana (1984), who challenges the use of the Wechsler Intelligence Scale with First Nations children; by Chavers and Locke (1989), who relate inappropriate applications in testing directly to postsecondary access; and in the joint discussions on academic performance between INARTF and members of the National Indian Education Association in 1991 (INARTF, 1990a). Chrisjohn (1988) and McShane and Plas (1988) have added an informative dialogue to the literature in their disagreement about the place of assessment of cognitive operations through test instruments.

The summary judgment in the literature for the long term is that there is a need for radical change in schooling and for more constructive models of schooling. For the short term, the answer is remediation and intervention at the K-12 level and for compensatory programs and opportunities for the many whom the schools have failed.

In the large literature about local control of schools since the 1970s are reports that demonstrate the potential of local control and the relatively successful establishment of schools with First Nations priorities, such as Gardner's (1986) description of the Seabird Island School. Another current in the literature, however, maintains that the movement toward local control has not in fact recreated schools: the same problems and new ones exist (e.g., Hall, 1992; Kirkness, 1985).

Factors that Make Success or Failure at University

Aside from the complex factor of K-12 schooling, where the discussion is about the lack of preparation and skills for university work, inappropriate or no counseling, teacher characteristics and effects (e.g., Coburn & Nelson, 1989), and inappropriate testing and curriculum, the factor that is mentioned most often is financial aid (Cibik & Chambers, 1991; Falk & Aitken, 1984; INARTF, 1990d; Wiley, 1989; Wilson, 1983). Problems are in source, amount, and continuity.

Several studies, varying in scope and compass, have attempted to find other factors that influence the academic success or failure of First Nations students in university education. The metric for success may be on the basis of grade-point average, other measures of academic performance, or simply persistence. The obverse is academic failure or student attrition. It is difficult to find documentation of specific program or institutional attrition, but the global rate, as remarked above, is high. McIntosh (1987), for example, says that only 10% of American Indian first-year college students finally graduate and, as previously noted, for Canada the figure is between 26% and 28%.

One of the most important generalizations to be made from the literature is that some apparent contradictions between studies should keep us from too readily overgeneralizing among localities, among the several First Nations, and among the kinds of institutions in which the students have enrolled. For example, in one study at UBC, mature, married students had a significantly better degree completion rate (Whittaker, 1986), while in another it was the younger students, as opposed to the mature students, whose indices were higher (Benjamin & Chambers, 1989).

Another good example is in the operational research distinction between groups, based on "more" or "less" identification with First Nations traditions. The short research question is whether there is a difference in measures of success between "traditional" and "acculturated" people. Sandoval (1978) seemed to imply that the Jicarillo Apache college students that were tested in a study of success factors, coming as they did from a more "traditional" community, may have had a relatively greater cultural divide to cross in order to be successful in tertiary education. (The import of his article, however, was to state that the difficulties he observed in student performance outcomes reflected a failure of the high school to prepare the students in terms of skills and by counseling.) Insofar as Sandoval's implication about relative adherence to "tradition" is implied, other studies point in the opposite direction. Blue and Blue (1983) found that traditional First Nations students reacted to stress differently from others, but there is no implication that performance varies between groups distinguished on the basis of "tradition."

Other studies have indicated that adherence to First Nations tradition may play an important role in university success. Rindone (1988a, 1988b)

connected traditional Navajo values to family strength and family support in her assessment of factors that motivated 200 randomly selected Navajo college graduates' success: tradition contributed to success. Huffman et al. (1986) found "cultural identity and retention of native cultural traditions" to be the most important factor for a smaller sample (38) of Sioux college students. Family support has emerged as a tremendously important contributor to university success for First Nations students in a number of studies, such as Falk's and Aitken's (1984) survey of 125 Southwestern First Nations college students; Wilson's (1983) open-ended opinionnaire study, completed by 214 Wisconsin First Nations graduates and students; and Pavel's (1991) secondary analysis of the large US *High School and Beyond* data corpus.

It is not unreasonable to assume that "tradition" translates to "family support." Lin's (1990) study of 87 First Nations college students in Montana found that students from more traditional families had higher grades and applied themselves more directly to academic tasks than those from "modern" families. One reason for the need for such family support may be indicated in an earlier study of Lin's (1988): Lin found that for many First Nations students, campuses are unfriendly, even hostile, places, and the sense of self and identity provided by strong adherence to tradition is probably the students' mainstay. Comparing attitudes and achievement between groups of Anglos and Montana First Nations students at a predominantly white university, Lin found that a common feeling among the First Nations students was alienation, and that the response of alienation to institutional life had the most important of all other factors' effects on grades.

Unfortunately, such alienation emerges as a common theme in the research literature. Aitken and Falk (1983) cited alienation as a reason for dropping out in their study of 132 Chippewa students in higher education. Bennett and Okinaka (1989), in a follow-up study of minority students at Indiana University, found a high dropout rate among First Nations students, and articulated a major concern: the "negative quality of campus life for ethnic minorities and strong feelings of social alienation and dissatisfaction." Stuhr (1987) explained that a factor in his study of First Nations' student attrition seemed to be "cultural" factors that were at issue between white instructors and First Nations students, and he cited institutional policy, poor instruction, poor curriculum, and instructors' lack of knowledge about the students as factors contributing to attrition.

Racism is obviously a factor that contributes to the alienation of First Nations students. It is cited as a negative factor in postsecondary education in Washington et al. (1985) in discussion of the high attrition rate, and by Williamson and Fenske (1990). Its effect is not limited to undergraduate students; its incidence is suggested as an important factor in graduate student completion rates; Richardson and Fisk (1990) pose the elimination

of campus racism as an objective for universities who want to attract First Nations students; and it is identified in the INARTF (1990c) massive summary of regional hearings as one of 17 major areas of concern in First Nations education. Anti-Indian racism and negative stereotyping were the subjects of a comparative study among groups of undergraduates in Texas, North Dakota, and Wisconsin, with the two latter venues having higher indices of negative stereotyping than Texas (Rouse & Hanson, 1991). The same researchers had earlier documented the dimensions of negative stereotyping in a sample of 226 Texas undergraduates (Hanson & Rouse, 1987). In a small sample (22 First Nations students) in the US Midwest, more than half reported verbal racism from other students and staff (Huffman, 1991). The elimination of racism in educational venues is the subject of a collection of 19 articles edited by Katz and Taylor (1988).

A few reports and essays focus on single factors as contributors to university success, such as positive role models in academic life for First Nations female students (Edwards et al., 1984); the need for a more coherent institutional commitment to First Nations education (Tierney, 1991); differences among First Nations in indices of career maturity (West, 1988; but the differences were found only at the second year of study); differences among First Nations students in socioemotional adjustment (Whittaker, 1986); participation in minority student organizations (Rooney, 1984); and areas of attribution of success (Powers & Rossman, 1983).

A small segment of the literature addresses learning and communicative styles as₁ problematic in First Nations postsecondary education: Fiordo (1984) described paralinguistic differences between Natives and non-Natives in university-level classes in Alberta and made recommendations for accommodation to First Nations "styles"; and Koenig (1981) compared "cognitive styles" in matched groups to assess differences that First Nations people apparently brought to the postsecondary education experience, and that might have been altered by that experience. Wiesenberg's (1992) discussion of postsecondary First Nations students' learning styles remains unusual, because so little is researched and published specifically about First Nations adults. One of the difficulties of First Nations university students that has received little research attention but which appears to be troublesome to many students is the difficulty of seeing their own cultures and languages inappropriately objectified and trivialized in university courses. Te Hennepe's (1992) work in this area is unique.

Few studies of success factors are designed as explicit comparisons with non-First Nations groups. A study that is comparative between ethnic groups and between venues, but that is only implicitly about performance, was completed by McDonald, Jackson, and McDonald (1992), who measured perceptions of state and trait anxiety among groups of students at a tribal college, Dull Knife Memorial College (Northern Cheyenne) at Lame Deer, Montana, and students enrolled at the University of South

Dakota. They found higher levels among the reservation-based students, and gender differences, and found as well that First Nations students had less self-confidence about their academic ability.

In another comparison, when Indians and "Anglo" postsecondary students who were enrolled in remediation courses were compared on the basis of the factors to which they attributed success in postsecondary work, in a study reported by Powers and Rossman (1983), Indian students were more likely than "Anglo" students to attribute their success (or lack of it) to effort, rather than to ability, context, or luck. College entrance test mathematics scores for Pueblo Indians and "Anglos" were compared to discuss "possible" differences in performance (Scott, 1983). Tyler and Swan (1990) compared First Nations and Caucasian college students on the axis of perception of extraordinary mental experiences and found differences in definition of mental health between the two groups.

A summary list from the literature about contributing factors to university success and failure follows. When sources are not noted in the text above, they are noted in connection with the item on the list.

1. K-12 schooling;
2. financial aid;
3. family support;
4. family background;
5. having a personal goal; related to career maturity (West, 1988);
6. determination;
7. intelligence (Wilson, 1983);
8. no perception of discrimination before high school (Wilson, 1983);
9. (related to 1, but noted as a continuation through university) developmental academic preparation (Falk & Aitken, 1984);
10. overt institutional commitment (Falk & Aitken, 1984);
11. role models (Edwards et al., 1984; Guyette & Heth, 1983; explicitly "American Indian faculty" in McIntosh, 1987);
12. maintenance of cultural identity (Huffman et al., 1986; Murguia et al., 1991; and others as noted);
13. (related to 1) lack of high school counseling and university recruitment information;
14. alienation (Browne & Evans, 1987; cited as the predominant factor by Lin, 1988; and others);
15. racism;
16. closeness to tradition;
17. anxiety and stress levels;
18. self-perception;
19. venue of program (campus or community);
20. gender;
21. community stresses (e.g., McDonald et al., 1991);
22. institutional climate (e.g., Bennett & Okinaka; Stuhr, 1987);

23. bases for admissions (e.g., no one conditionally admitted had persisted in the study by Benjamin and Chambers, 1989, which is not the experience in many special programs);
24. culture conflict (Sanders, 1987);
25. threat of loss of cultural identity (Washington et al., 1985);
26. inadequate preenrollment counseling (Stuhr, 1987);
27. poor instruction (Stuhr, 1987; Te Henneppe, 1990);
28. friends (Aitken & Falk, 1983);
29. institutional commitment to student support (Aitken & Falk, 1983).

Generalizations made from this list of factors might point us to an arbitrary classification of factors; note that some factors are mentioned under multiple headings:

1. *Intrinsic personal characteristics*: family support and background; having a personal goal; career maturity; determination; intelligence; maintenance of cultural identity; closeness to tradition; anxiety and stress levels; self-perception; gender.
2. *Institutional factors* (i.e., influence or mediated in the tertiary institution itself) financial aid; developmental academic preparation; overt institutional commitment; role models and First Nations faculty; lack of high school counseling and university recruitment information; alienation; institutional climate; bases for admission; poor instruction; institutional commitment to student support; racism.
3. *Environmental factors that originate outside the institution*: financial aid; community stresses; the nature of K-12 schooling; lack of high school counseling and university recruitment information; friends; racism.
4. *Cultural factors*: closeness to tradition; culture conflict; threat to loss of cultural identity.

The summary judgment is that there is a limited range of possible institutional interventions, but that institutional interventions in the appropriate areas are crucial to academic success and retention.

Focus on special fields. The range of specific fields discussed in the literature is wide, but it is not representative of either the efforts that have been made in individual fields to promote entry, or of the range of aspirations of First Nations students.

If only broad general categories are considered, the range and distribution in fields that First Nations people in fact enter appear to be comparable to the range and distribution entered by others, according to 1986 census data in Canada (though that summary includes all postsecondary education, not just university); the modal field is in technical fields and trades, followed by commercial training and business education, and the university-based fields of education and social science follow (Armstrong et al., 1990). In the US, the modal field changed from education in the 1970s to business administration in the 1980s (Fries, 1987).

The literature about university education in specific fields is artifactual and not representative. Isaac (1986), for example, discusses the recruitment and training of minority people for research careers in psychology at the graduate level and poses a model program. This does not represent any widespread movement in recruitment, but the US National Institute of Mental Health defines the area as important and promotes First Nations access (NIMH, 1989). Professional bodies, First Nations organizations, and to a lesser extent academic institutions have made considerable efforts to encourage and promote the entry of First Nations people into engineering, mathematics, and other sciences (e.g., Matthews, 1990; Miranda & Ruiz, 1986; American Indian Science and Engineering Society, 1990a, 1990b; Farrell, 1989)

Though there are special recruitment, admissions, and support programs in medicine in the US and at some of the medical schools in Canada, it is difficult to find academic literature about such programs. Sweney (1990) describes a program that begins preparation of First Nations secondary students for medical school and for other health professions. The program includes a summer program in math and science at the University of North Dakota. An interesting adjunct to discussions of recruitment in medicine is a collection edited by Beiswenger and Jeanotte (1985), which they call a "survival manual" for First Nations women in medicine.

Teacher education, along with law, was the first field in which there was significant participation by First Nations people. Noley (1991) says that the number of First Nations teachers in the US is declining relative to the growing population (Noley 1991); whether or not this is the relative case in Canada, the need for First Nations teachers is growing.

In addition to the programs already discussed, such as the TEPs, it should be noted that in both Alaska and the Northwest Territories there is a relatively new movement toward community-based teacher education programs for First Nations people. *Kw'atindee Bino Community Teacher Education Program* is a coursework guide for just such a community teacher education program at Rae-Edzo, NWT, and provides an idea of program interna and intent in that program (Dogrib Divisional Board of Education, 1991); Alaska's community-based teacher education program is summarily discussed in the INARTF documents.

The INARTF discussions brought up problems in teacher education: some of the problems in attracting teachers appear to be the employment conditions (low pay, poor facilities, increasing expectations and responsibilities) and the fact that other fields attract more students. Campus conditions that affect teacher education, discussed in the INARTF sessions, include biased admission criteria, lack of student financial aid, and on-campus racism.

Postgraduate education. In the US in 1984 First Nations people comprised only 0.4% of total graduate school enrollment (Kidwell, 1989), so it ap-

pears that access and persistence are problems at that level as well. In the early 1980s attention began to focus on admission and survival in graduate education, and one of the most vocal promoters in the US for minority graduate education has been Howard Adams, a Canadian Metis at the University of California, Davis (e.g., his 1985 summary of the issues and advice to potential graduate students). Canadian figures will not be as high as this low American figure. Until data from the 1991 postcensus survey are released, estimates of Canadian participation rates can be reliably made only through snowball sampling at Canadian universities, and this will miss those who study in the United States and other countries abroad.

Aspirations and choice of field were apparently similar for First Nations people as for other populations in the US as long ago as 1979. A study of ethnic differences in aspiration among GRE-test takers showed that gender (i.e., being a male) and grade-point average, not ethnic identity, were associated with the expectation to complete a PhD, and this held true for all ethnic groups in the study. Indians (as well Blacks and Hispanics) had higher degree aspirations than whites or Orientals with similar characteristics, and choice of field was not associated with ethnicity (Centra, 1979). Centra draws from this data the relativist conclusion that each ethnic group is a "frame of reference" for its students (though it appears that the "frame of reference" is one imposed by the author, as the correlations he found are not based on having elicited information about bases of choice).

Gender was an issue in 1979; the demographics of graduate study have changed since then, but we do not understand the role of gender in choices made for graduate study, and this must hold especially true in First Nations research. For this reason, Beatrice Medicine (1988) wrote a summary of issues about First Nations women in university education at all levels, including postgraduate, as preface to a call to research.

Macias (1989) had as interview subjects 11 First Nations female graduate students who were academically successful, and found that their success factors were systematic study habits and an approach to learning that included (a) multimodal approaches to learning; (b) ability to synthesize knowledge; and (c) an approach to new information that was "reflective pragmatic." According to Macias, these approaches to graduate school reflect indigenous approaches to learning.

The central issues in postgraduate education, as seen by the professorate, may be introduced with reference to a meeting in 1988 of the US Council of Graduate Schools, where Trevor L. Chandler made a short statement that contextualizes the thrust of the American literature. He said that there was heavy competition for both qualified minority graduate students and minority staff members, and that the most important relationship in postgraduate education was the relationship between faculty

members and minority graduate students. Graduate work involves personal relationships.

Senior scholars' and staff members' role in making minority postgraduate education successful is seen as so crucial that two major conferences were devoted to the subject in 1988 (Adams & Wadsworth, 1988). Mentors influence career choices; Brown (1987), based on survey data, described crucial transition points in academic careers, from elementary to graduate school, the most crucial choice during transition from undergraduate to graduate training being that of career choice.

The other relationship between staff and graduate student is that the graduate students of today are the staff of tomorrow. Howard Adams (1988) argues that the age of the present professorate and the low numbers of trained postgraduates mean that minorities will not be in a position to replace current staff when they retire, so concerted action should be taken now to encourage minority entry into graduate school. In 1986 Adams proposed that a national office be mandated to act as a clearinghouse for information for graduate access; that steps should be taken to educate and sensitize graduate faculty to the nature of student needs; and that we needed more specifically defined research in this area. He introduced two other themes that are common to much of the literature: (a) sources of graduate student funding should be internal to the university, such as assistantships, a theme he repeated in stronger terms in Adams (1988); and (b) universities must hire more minority faculty and staff.

Chandler's and Adams' statements are representative in another way of the American discussion. Though funding is more of a problem now, there has been federal financial support for universities in the US to recruit and retain graduate students from defined ethnic minority groups (Pruitt, 1984), so the discussion of First Nations issues at the graduate level, as at the undergraduate level, is often in the context of minority group education in general, even when there is specific reference to First Nations peoples. In the collection on minority group education edited by Ward and Cross (1989), for example, many aspects of the issue are discussed with direct reference to American Indians, including special program descriptions.

A survey of American Indian postgraduate students in the US Southwest by Williamson and Fenske (1990) brought out these general factors that contribute to success in the completion of graduate degrees:

1. satisfaction with program;
2. grade-point average in doctoral program;
3. intention to finish program; and
4. intention to join faculty;
   with other specific factors being
1. mentoring; relationships with faculty;
2. perception of faculty and departmental attitudes toward Indians;

3. gender;
4. feelings of racial discrimination and alienation;
5. academic self-concept;
6. aspirations; and
7. family support.

Kidwell (1986), in a digest review of issues in First Nations postgraduate education stated many of the same premises in the terms paraphrased below, but cautioned that there was no implication of priority in the items, that all are related:

1. parental and peer encouragement, especially as First Nations families often cannot provide effective support systems for graduate study; though parents have high expectations, most do not have experience in higher education and socioeconomic status means that they usually cannot support the graduate student financially (Kidwell, 1989);
2. awareness of career options;
3. role models;
4. adequate academic preparation;
5. adequate financial and academic support services at graduate level; (Kidwell notes that tribal governments often provide scholarships for graduate study; she says they should also provide loan funds and encourage local academic employment of graduate study graduates, e.g., in tribal colleges).

Even in descriptions of local programs, such as the one at Hunter College to promote graduate access for research positions in mental health and substance abuse, recommendations are made for global strategies to attract and keep students. Isaac (1986) takes from Hunter's experience that graduate departments should sponsor activities that relate to minority student interests and should support minority student organizations. Another local program with global implications is one in which First Nations teachers were prepared in a special graduate program for becoming school principals (Lujan et al., 1985). One of the unusual aspects of Hunter College's program is its justification: Isaac describes the rationale for the program not in terms of service to a client population, but because of the unique contribution that minority students can make to psychological research.

University Commitments and Interventions

Special programs. A common approach to First Nations university education is the creation of a special focus or special needs program. Programs with special focuses are discussed in other sections of this review. They are those like the summer program at University of Lethbridge, set up to orient adult First Nations students to university study and to improve performance and retention (Beaty & Chiste, 1986). Such programs are locally motivated and organized but there are so many of them, including

a number of "transition year" programs meant to ease entry into the university, that in total they represent a movement that is international in scope. A common feature of these programs is that they are externally funded, not base-budget items in most universities, so even when they are programs of long standing they have an ad hoc aspect.

Not all special programs are restricted to formal teaching. Winchell and Esse (1981) describe a program in Native American Public Administration that involved graduate and undergraduate students, as well as 253 other tribal members, and tell of the transformation of the program from a postgraduate course for the Navajo Nation into a centre for tribal government and First Nations issues.

Counseling and other support services. The research literature and the essay literature confirm a need for First Nations-specific support programs on campuses. Wright (1985) notes that the formation of student support groups on campus is vital, and is one way that universities meet the objective cited by Moore-Eyeman (1981), that social as well as academic support systems must be in place.

Counseling services are central to this support. A body of research literature indicates that the identity of the counselor is important. Haviland et al. (1983) found that both male and female First Nations students had a strong preference for First Nations counselors and were more likely to go to one, no matter what the nature of the counseling issue (Havliand et al., 1983). In a comparative study, Bennett and Big Foot-Sipes (1991) found that both white and First Nations students preferred counselors with similar values to their own, and that there was a stronger preference among First Nations students for First Nations counselors. Given the critical nature of literature about testing, it is surprising that there is not more literature about psychometrics in counseling, such as the work by Haviland and Hansen (1987) dealing with the appropriate use of psychometrics with First Nations students. One theme in the counseling literature calls for educating non-First Nations counselors about how to relate better to First Nations students (e.g., Ford, 1983). This is the intent of some of the discussion about counseling in specific areas such as suicide prevention (e.g., Capuzzi & Golden, 1988, especially the article therein by Jordan, "Interventions with Native Americans" and the Ottens, Fisher-McCanne, & Farber discussion of interventions with college populations) and in employment interviews for First Nations college students (Mahoney, 1992).

Compensatory or academic support programs are fairly common for First Nations students, either in general study areas or in specific fields. An example of support oriented toward a specific field is Clever's (1982) description of a model for a comprehensive mathematics clinic found useful by First Nations students. Evaluation of the Personalized Education Program (PEP), a program meant to improve retention and achievement

among traditionally "underprepared" first-year students at the University of Minnesota, showed a fairly high attrition rate from university among the participants, but the program was successful in that among those who persisted academic performance was comparable to that of other university students (Garfield & Romano, 1983). The use of tutors with First Nations students is exemplified by the University of Manitoba's formal tutoring program; in addition to providing study skills workshops, volunteer tutors worked with 300 of the 600 First Nations students at the University of Manitoba in 1983-1984 (Hurlburt, 1984).

Recruitment and admissions. Most of the special programs for First Nations students use modified admissions criteria. Affirmative action programs are the norm at American universities, but it is not clear in the literature what proportion of First Nations students are admitted to undergraduate programs on that basis. A substantial American descriptive statistical literature is generated in monitoring institutional progress in admissions (e.g., in addition to the state, regional, and national sources already mentioned, see Birdsell, 1984; Hand, 1988; Hofstra University, 1990). A smaller though substantial literature exists about strategies and measures of retention (e.g., Degen, 1985; Don-Paul & Chambers, 1989; Fallows, 1987; Smith, 1981; Weidman, 1985).

Competition among US universities for qualified minority applicants has produced some studies of specific factors and strategies involved in admissions. For example, at a large university in the US Midwest it was found that the primary factor influencing ethnic minority choice of university was the institution's proximity to home (Stewart & Post, 1990); and in a study of Minnesota Chippewa students, the authors promote readmission strategies by suggesting that tertiary education institutions encourage a return to studies among those who have dropped out (Aitken & Falk, 1983).

Guides and directories help American First Nations students make admissions choices. For example, a large school division in Nevada has published a guide for choosing a university, related to career choice, aimed at a First Nations audience (Clark County School District, 1980). US tuition benefits for American Indians are discussed in an information package included in Olivas and Sickward (1986); and Texas publishes a directory of financial aid available to Indians in Texas (Texas College and University System, 1986). A large privately published guide to 500 different colleges and universities directs American Indian and other minority students to universities on the axis of record of access for minority students (*Minority Student Enrollments,* 1987); and First Nations parents of students who want to enter engineering or science have access to a guide for choosing universities (American Indian Science and Engineering Society, 1990a, 1990b).

Implications for university recruitment reach to earlier years of schooling, not just to secondary school. San Diego's Advancement Via Individual Determination (AVID) Program is oriented toward several thousand minority children in 80 schools in grades 6-12, with the objective of university preparation of First Nations and other minority students. Evaluation of the program after 10 years demonstrates that it has had a positive effect with American Indians (San Diego County of Education, 1991);

Program evaluations. Reports of evaluations of special programs have added a great deal to our knowledge of First Nations education, but because they have limited or restricted distribution it is impossible to assess the scope of this kind of literature.

For this review, a small sample of convenience of program evaluations was reviewed in order to illustrate the categories they employ in evaluation. The evaluations were (a) a report, with recommendations, on services provided to First Nations students at the University of Alberta (Council on Student Life, 1990); (b) a report on the Project for the Education of Native Teachers (PENT) at Brandon University (Reimer & Doerksen, 1982); (c) an evaluative report, over four years, of the Native Nurses Entry Program at Lakehead University (Lakehead University, 1987-1990); (d) A program evaluation of Toti:lthet Centre, a First Nations Community Learning Centre at Mission, BC (Vedan, 1992); and (e) a program review of Saskatchewan's Northern Teacher Education Program at LaRonge (NTEP, 1991).

The substantive findings in the reports are similar, as are the recommendations. A review of the components of the reports, however, is instructive. Not all reports have all these components, but the genre includes these categories for description:

- Rationale;
- Integration and relationship with host institution(s);
- Mechanisms for First Nations involvement in policy;
- Courses;
- Statement of relationship to traditional university program (and statement of academic justification for modification);
- Support services;
- Administrative structures;
- Student record data;
- Student performance data;
- Retention rates;
- Discussion of problem areas;
- Graduate follow-up study focusing on any of
  - postprogram experience;
  - evaluative statements with reference to program components;
  - evaluative statements with reference to host institution;
- Recommendations.

The substantive findings are usually formed around descriptions of student characteristics or performance. Recommendations are sometimes motivated by discussion of problem issues in administration or implementation of programs. There is sometimes a recommendation for some kind of program change, and rarely a recommendation for a change in relationship with host institutions. This genre is clearly evaluative of programs as an adjunct to established tertiary institutions.

Institutional self-study. Universities, consortia of tertiary education institutions, government educational agencies, and sometimes individual researchers direct a kind of reflexive research to the institution itself, to find out what institutional characteristics or processes promote institutional access for First Nations people or set up barriers. There is typically an information gathering component to such research followed by a series of recommendations.

Research strategies vary by method, scale, and focus. A recent case study of 10 large American universities attempted to assess the effects of state policy on the university and policy effects on minority students, and recommended the implementation of a model of adaptations to "organizational culture" of the university in order to improve minority student performance (Richardson & Skinner, 1990). On the other hand, Tierney (1991) based his argument that institutional recognition of cultural diversity has to be a higher priority for universities on interviews with three First Nations personnel at university. An example of individual researcher involvement at institutional evaluation is Friesen's (1986) description of institutional mistakes made during the implementation of an outreach teacher education program.

Based on summative evaluation of 10 small-scale projects for minority student services at American universities, Brown (1985) generalized that institutional "success conditions" were (a) institutional commitment; (b) program leadership; (c) program conceptualization; and (d) faculty involvement in the program.

In Arizona the state university system's Board of Regents initiated a large-scale self-study of minority access to the university system (Cotera, 1988; Cotera & Wood, 1988; Wood, 1988) out of which grew recommendations that echo the terms of the literature in access, support, recruitment of minority staff, community involvement, and continued information gathering. State University of New York, after self-study, recommended address to the issues of racism, more effective recruitment and admissions of minorities, and involvement of minority staff in policy decisions affecting minorities (Zwana, 1988).

The Action Council for Minorities in Engineering surveyed minority engineering students at 64 universities to assess institutional strategies for promoting access to science and mathematics careers, and the interventions they recommended were in the areas of financial aid, mentoring, and

exposure to scientists at an early age; sensitizing faculty to minority issues; and taking measures to reduce ethnic conflict in the institution (Friedman, 1990).

A few studies deal directly with the dynamics and causes of campus racism (Huffman, 1991; Rouse & Hansen, 1991), but many more are studies of factors in which the experience of interpersonal racism is noted as an inhibiting or negative factor in performance and retention. In fact, it might be said that racism is a footnote throughout the literature, yet no studies were found that directly and solely address the incidence and extent of campus racism involving First Nations people. In the past few months several Canadian universities have begun discussion among themselves to share information about self-study about racism on campus, and to share strategies both for education about racism and for dealing with its incidence (personal telephone interview, Lois Stanford, Associate Vice-President Academic, University of Alberta, November 1992).

Institutional change. One phrase describes the characteristic of universities that are more successful in recruiting and retaining First Nations students and describes the change that by implication is directed to less successful institutions. The phrase in the literature is usually *institutional commitment*.

This commitment motivates change in other areas. The next summary statement is that universities should cease to cast First Nations as "client" communities, but incorporate First Nations people and concerns in all the processes that involve the lives of educational careers of First Nations students and staff. This may involve formal agreements with First Nations communities in university-related work that goes beyond the instructional program to include such activities as research and applied social science and science.

Several authors, including McIntosh (1987) and Wright (1985), are particularly impressed with the necessity of hiring of First Nations professors and instructional staff. Institutional commitment means that First Nations people would be involved in policy discussion about admissions and programs as these affect First Nations communities. This commitment may mean the support of special programs and, taking account of the unique needs of First Nations students, support services.

Institutional commitment implies a commitment to improve the institutional climate: there is no necessary conflict between the maintenance of academic autonomy on the one hand and an evaluation of program interna and course content that is perceived as misleading, offensive, or irrelevant to First Nations, on the other. Institutional commitment would see processes established for the resolution of such conflicts.

The literature dealing with undergraduate university education includes the term *mentoring*, a function for university staff members. It is amplified as an essential in graduate education. The area of change im-

plied when the term is used is the improvement of professional interactional, face-to-face encounters between students and faculty members.

The implications for institutional change are clearest in the area of teaching. Two examples of strong statements of responsibility charged to instructional staff are Hornett's (1989), who puts the onus on instructors to promote success by acknowledging and dealing with racism, encouraging students, and clarifying instructional goals (Hornett, 1989); and Vasquez and Wainstein's (1990) statement that it is the instructional staff members' responsibility to conceptualize cultural difference, not deficit, and to adapt instructional strategies to meet the needs of minority students. There are reports in the literature of formal address to that issue. Texas A&I University, for example, attempts to educate instructional staff about the needs of minority students, especially in the area of dealing with racism, though some staff resent the implication of the need for such sensitization (Mangan, 1991).

On the other hand, this part of the literature record contains many public reflections of the positive experiences of non-First Nations university instructors who have learned about instruction and themselves in the process of teaching First Nations students (e.g., Collier, 1993, in press; Proulx, 1991; Sturgess, 1984).

Fiordo (1984) spoke of adapting university instructional styles for First Nations adults, but cautioned that the adaptations should not be mechanical, and should be made only after study of local conditions and needs. Just what the instructional style should be is a problematic: Hurlburt et al. (1990) examined preferred teaching styles with students in Manitoba on the axes of structured teaching and teacher control, to discuss paradox and contradictory expectations of students. Wiesenberg (1992) analyzes visual versus oral (perhaps sequential versus simultaneous) approaches to learning of First Nations adults, while Huitt (1988) discusses psychometric finding of personality differences of First Nations students and recommends adaptation of instructional strategies based on those differences. Many of these approaches posit an indigenous learning style: an explicit reference to such a learning style as a foundation for instructional modification is Hesch's (1990) attempt to use models of indigenous thinking in applications to teacher education in a special TEP in Saskatchewan.