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Indian Reservation Labor Markets: A Navajo Assessment and Challenge

RICHARD POTTINGER

"Finding the solution to Indian economic problems is a desperate task."¹ Unemployment estimates on the Navajo reservation, the largest and most populous Indian reservation, range between 35 percent and 70 percent; the most conservative estimate indicates that more Navajos are unemployed and seeking work than are currently employed in the wage and salary sector of the reservation economy.² President Reagan, acting through executive order in 1983, established a Commission on Indian Reservation Economies, "charged to identify obstacles to economic growth in the public and private sector at all levels."³ The Commission's report largely confirmed the conventional wisdom, characterizing reservation labor as unskilled and unreliable, with inferior educational endowments, and therefore an obstacle to development. Contrary to this expectation, a study undertaken in the summer of 1985 revealed a sizable pool of unemployed men and women with extremely credible educational qualifications, many with relevant employment experience.⁴ This pool is so large and so well qualified as to argue that the quality of labor is not a significant barrier or obstacle to industrial development on the largest and one of the poorest Indian reservations.

Why did this assessment go unobserved by the Presidential Commission? If the quality of labor at this level is not a significant obstacle to development, where do the actual obstacles lie?

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These are the questions this assessment will address. The approach is essentially a policy analysis, based on institutional economics, that seeks to understand the interpretations of reservation economies held in centers of power in the United States. It is a challenge to these interpretations and offers an alternative strategy.

The discussion begins with a review of the Commission's findings and position on reservation labor. This position will be contrasted with data from a representative sample drawn from about 600 recent job applicants in a segment of the Navajo reservation labor market. While this segment is not characteristic of all unemployed persons on the reservation, it is representative of a large enough group of people to meet any reasonable development forecast. A test of this assertion matches the qualifications of applicants with those of the current employees of a profitable and successful reservation employer.

The "export base" model of regional and local development is widely used in the United States by local governments, including the Navajo, as a strategy for designing development programs.⁵ Coupled with economist Amartya Sen's concept of "entitlements," the export base model is presented as a useful analytical tool for appraising reservation labor markets.⁶ The second part of this discussion will present this model and argue its relevance in the Navajo context. The persistence of ineffectual development strategies and the characterization of Indian labor as "unskilled and unreliable" is comprehensible from this perspective. Finally, this assessment will offer a challenge for future research and initiatives in promoting Navajo development.

PERSPECTIVES ON LABOR QUALITY AND QUANTITY

The President's Commission identified an "unskilled and unreliable Indian labor force" as one of the five most significant obstacles to reservation economic development.⁷ In the words of the Commission,

inferior education, high drop-out rates, and the lack of labor markets are factors which contribute to the pool of unskilled Indian labor. Past federal training efforts, such as CETA [Comprehensive Education and Train-

ing Act], focused on training individuals through employment in tribal government. Since tribal government labor markets are dependent upon outside grants-in-aid, CETA training for public sector employment had generated nearly 25 percent of Indian reservation employment in non-business activity. Labor was also trained for employment in tribal government-run businesses which were not capable of maintaining that employment without further subsidy. . . .

Lack of skills, chronic unemployment, absence of individual opportunity, and a federally supported system of tribal patronage contribute to an environment characterized by social welfare dependency, broken families, low self-esteem, alcohol and drug dependency, high delinquency and crime rates, ill health, suicide, and despair. The reliability of Indian labor is further exacerbated by inadequate roads and systems of reliable transportation on Indian reservations.⁸

The magnitude of economic stagnation on Indian reservations is illustrated by data from the Navajo Nation. In 1975, employment on the reservation was estimated at about 24,700, excluding CETA jobs.⁹ By 1983, a period spanning the growth of significant energy resource development on the reservation, employment had *decreased* to 23,800.¹⁰ The reservation population through this period probably increased by 10 percent or more. Indeed, "finding the solution to Indian economic problems is a desperate task."

Since World War II, a large proportion of the Indian population has migrated to urban areas in search of work.¹¹ Many of these migrants have been reasonably successful. Concerned with the perception of reservation labor markets as consisting of "unskilled and unreliable" people, a research strategy was devised to determine the extent to which urban migrants returned to the reservation. If local labor was "unskilled and unreliable," then surely these returnees, with their proven urban employment track record, should be an important development resource.¹²

The cooperation of a major private sector reservation employer was secured for this study. Matched samples of Indian job applicants and employees were developed which included employment, educational, and demographic "biographies" of 160

people, all Native Americans; 40 female and 40 male job applicants, and 40 female and 40 male employees. Most of the employees of this firm fell into the blue collar craft, operative, or white collar clerical, occupational classifications. It is the quality of labor in this segment of the labor force that is thought to be in scarce supply on Indian reservations.

The research hypothesis was confirmed. Returnees do disproportionately and significantly complement the local labor force. The surprise in this study, however, was not this confirmation, but the very high quality of the total applicant labor pool.

About 600 employment applications were received by the subject firm in 1985. Perhaps 20 applicants were hired, while a few more found jobs with other reservation employers. Most will remain unemployed unless they leave the reservation. Given the high high school dropout rate on the reservation, it was expected this rate would be reflected in the qualifications of applicants. Only about 35 percent of the adult reservation population are high school graduates, compared with 70 percent of the residents of Arizona and New Mexico.¹³ It was found, however, that 94 percent of the 600 applicants were, in fact, high school graduates, while about half had some post-secondary, usually college or university, experience.

This was certainly inconsistent with the expectation of documenting an "unskilled and unreliable" labor force. Therefore, the applicant samples were compared with those drawn from the 250-plus employees of this firm. When age, education, and experience were all considered and matched, the inescapable conclusion was that a large, comparatively skilled and reliable, labor force was available in the industrial sector of the Navajo reservation economy.

One method of assessing the quality of a labor force is by determining what proportion of job applicants have qualifications that match an equivalent proportion of the employees of a successful firm in that market. In other words, how many applicants could replace how many current employees? These proportions were determined for three sets of qualifications: age, education, and experience. Education and experience are important dimensions of employment skills, while experience is also an indication of a person's reliability as an employee. Local labor markets are often overwhelmed by young people seeking their first job. Matching an older proportion of applicants with a younger

proportion of employees provides a measure of where these two groups overlap with comparable ages, in effect controlling for this age bias in the applicant population.

Using these comparisons, it is possible to calculate the number of qualified applicants relative to the numbers of employees. This ratio can also be expressed as the length of time required to replace the existing employees with qualified applicants. According to the Commission, this should be a difficult task. The data show an abundance of qualified people.

The mean age of 95 percent of the female applicants matched that of 95 percent of the female employees at the time they were hired. Male employees when hired were, on average, significantly older than most applicants. Still, 77.5 percent of the male applicant and employee groups overlapped in the dimension of age. This was the most significant difference in the analysis. The mean educational levels of both employees and applicants were nearly equivalent and, incidentally, equal to the median educational level of all adults in Arizona and New Mexico.¹⁴ There were no differences in the prior employment experience of female applicants and employees; both groups had 2.5 years of previous

Table 1.
The Convergence* of Employment Qualifications
Proportions of the Applicant Labor Pool Matching Equivalent
Proportions of Those Employed

Category	Females	Males
Age	95%	77.5%
Mean Age	24.4 years	24.5 years
Education	95%	98%
Mean Education	12.7 years	12.8 years
Experience	100%	87.5%
Mean Experience	30.0 months	30.4 months
Applicants per Employee		
Ratio	3.3:1	5.3:1
Replacement Time	<4 months	<3 months

*"Convergence" refers to the extent to which applicant and employee populations overlap in the distribution of qualifications. This analysis progressively excludes the "tails" of the distribution, i.e. the youngest applicants and the oldest employees, until the two distributions overlap statistically. The approach addresses the question of "How many of your employees could be replaced by the available applicants?" For female employees, better than 95 percent could be replaced by 95 percent of those looking for jobs.

experience at the time of application. Among the men, 87.5 percent of the applicants matched the level of previous experience of 87.5 percent of the employees at the time they were hired.

There were 3.3 qualified female applicants for each female employee and 5.3 qualified male applicants for each male employee working for this firm in 1985. With the exception of one specialized vocational qualification among the men, the entire labor force could be replaced with suitably qualified people in under four months. It would require 10 months to replace employees in the specialized vocational category, assuming no active recruitment efforts were made.

Since there is also ample evidence that urban Indians are alert to reservation job opportunities and are aggressive to responding to them, these individuals could be counted upon to augment the local labor pool if opportunities were available.¹⁵ Therefore, there is no shortage of skilled, reliable, labor in this segment of the reservation labor market. The quality of labor in this segment is not a barrier to reservation development.

The value of this labor force as a development asset can be assessed using the export base model of regional economic development. This model provides a theoretical basis for defining an effective development strategy within which higher education must play an essential part.

PERSPECTIVES ON EXPORTS, ENTITLEMENTS, AND DEVELOPMENT

Export base theory divides a local, regional, or an urban economy into two sectors for analytical purposes: the export base or basic sector, and the residency or nonbasic sector.¹⁶ The export base is that proportion of the economy that derives its income from outside the local frame of reference or region. The residency base provides services and products for itself and for the export base. All but subsistence economies require an outside source of revenues, provided through "exports." These revenues are distributed through the local economy as wages of export base employees and in return for other factor inputs.

Revenues circulate through the local economy, providing additional jobs in what is often characterized as the "service sector." The linkage between the two sectors is defined in terms of

the employment "multiplier." One export base job is credited with providing the economic base for two to five residency base jobs, thereby "multiplying" the economic effects of each export job. Local governments and chambers of commerce, including the Navajo, rely on this model as a basis for development strategy. Generally, this strategy is directed to bringing "new" jobs into the community. The residency base, represented by local small business, is usually confident of its ability to provide needed goods and services to these "new" employees.

For labor quality to be an obstacle to development on reservations it would have to be demonstrated that export base growth was limited by an inadequate supply of local labor with suitable qualifications. As demonstrated by the Navajo study, at least one industrial export base employer in one local labor market had three to five times the numbers of applicants needed to replace its entire workforce in 1985 alone. Extending these numbers to the five other reservation towns of equivalent size suggests there are 3,000 to 4,000 people with similar qualifications who are unemployed on the Navajo reservation at any one time. A fraction of this number would be more than adequate to meet the most wildly optimistic and possible development scenerios, as exemplified by the establishment of another Fairchild/Shiprock operation employing 1,500 people.¹⁷ Labor quality and quantity in this segment of semi-skilled workers is not a barrier to development on the Navajo reservation.

There appears to be no objective basis for the Presidential Commission's findings. That the Commission should overlook the reality of Navajo labor supplies suggests remarkably poor investigative procedures, especially since one in five rural Indians is a Navajo. Surely a discrepancy of this magnitude would not go unnoticed by representatives of the Navajo Nation. The large numbers of Indians who have successfully migrated to urban areas and found employment there also presents a common sense argument as to the marketability of Indian labor. Why then does the image of reservation Indians as unreliable and unskilled persist? A reasonable explanation lies in the export of "entitlements."

The export base model of local development is indifferent as to the nature of its exports, although often these are conceptualized as "hard" goods; agricultural products, oil, gas, minerals, and manufactured products. In a classical market economy such

a characterization is appropriate; there are no other sources of external revenues. Any source of external revenue, however, can provide the basis for developing the local economy. Cash transfer payments such as Social Security, federal grants, or pensions can be nearly as effective as agricultural exports in providing revenues to the local economy.¹⁸ In the contemporary welfare economy, it is not self evident that welfare and grants may be a less stable source of income to a community than manufacturing or agricultural employment. While this soon leads to a discussion of factor integration or agglomeration effects, for relatively small areas, like Indian reservations, the concept is a useful analytical tool. Furthermore, it lends itself to a discussion of "entitlements" in economic development.¹⁹

Economist Amartya Sen argues that,

perhaps the most important thematic deficiency of traditional development economics is its concentration on national product, aggregate income and total supply of particular goods rather than on "entitlements" of people and the capabilities these entitlements generate. Ultimately, the process of economic development has to be concerned with what people can or cannot do, e.g. whether they can live longer, escape avoidable morbidity, be well nourished, be able to read and write and communicate, take part in literary and scientific pursuits, and so forth. It has to do, in Marx's words, with "replacing the domination of circumstances and chance over individuals by the domination of individuals over chance and circumstance."

Entitlement refers to the set of alternative commodity bundles that a person can command in a society using the totality of rights and opportunities that he or she faces.²⁰

The commodity bundles of entitlements available to native residents of Indian reservations are governed by treaty, law, and policy according to the various administrative identities reservation communities can generate, first as Native Americans, but also as local governments, school districts, impoverished people, underdeveloped areas, enterprise zones, etc. Entitlements also include market access for the various tangible products of the lo-

cal economy such as oil and gas exports, silver work, rugs, and mutton, and the less tangible products such as tourism.

The suitability of a person's skills and experience for employment, or for unemployment, is part of that person's entitlements. Unemployment "qualifications" have no value in a market economy, but in a grants economy they may be a valuable export commodity, providing access to lucrative cash flows from various government programs. In the grants market for unemployment a problem for Indian administrations and the federal bureaucracy is the effort required to maintain the credibility of grant justification, e.g. the portrayal of the unskills and unreliability of the labor force. This is especially important when there is little hope that employment alternatives, such as private sector initiatives, will prove successful. In 1983 there were nearly 4,000 CETA jobs on the Navajo reservation.²¹ No private company is likely to generate employment on this scale. The grant process itself is the employment program.

Considerable efforts are required to characterize populations or segments of populations as legitimate recipients of the funds in various grants programs. In their relationship with the federal bureaucracy, this may become a full-time activity for many Indian officials. Drawing on the experience of his own ethnic background, Cherokee economist Gary Anders has characterized the Indian managers of this process as "compradors." Compradors were the domestic agents of Spanish colonialism in the Americas. Now, however, these Indian compradors serve federal masters in a relationship characterized by dependency. The Cherokee experience serves as a model of the tribal-federal relationship.

These *compradors* perpetuate the Cherokees' underdevelopment by using the tribe's resources to promote the interests of the dominant white economy at the expense of the tribe. The Oklahoma Cherokees remain underdeveloped despite massive injections of federal funds because their tribal economy is entirely controlled by a powerful class of "white Indians." In fact, this small ruling elite has been able to gain effective control over the tribe's resource base. It has transformed the once self-sufficient Cherokee tribal economy into one completely oriented toward using Indian poverty as a means of securing lucrative government

anti-poverty grants that eventually wind up in the hands of the local white contractors, merchants, and businessmen.²²

The image, and perhaps to some extent the reality, of Indian reservation poverty is maintained as a vital export of the reservation economy. The Navajo, however, have sought to maintain a climate of "genial intimidation" with corporate residents, border towns, and other "white" or more appropriately, "anglo" interests.²³ The Navajo have been aggressive in pursuing royalties and taxes from energy companies and have been critical of the labor practices of many reservation employers.²⁴

While reservation incomes often are spent in border towns, this is certainly not the intent. The characterization of the reservation "grants" economy, however, is historically accurate. As recently as 1980, 70 percent of the Navajo government's budget of \$140 million was based directly on federal sources, the equivalent of about \$20,000 in "revenue" generated by each of the government's nearly 5,000 full time employees.²⁵ This grants "export" industry is big business for the Navajo and, presumably, other reservation governments.

A perspective on the Navajo grants economy can be developed by comparing the Navajo government with a private corporation. The Navajo government in 1980 "generated" more revenue per employee than a number of major corporations, including Cannon Mills, General Instrument, and National Semiconductor.²⁶ While it may be somewhat inappropriate to compare governments with private corporations, such a comparison does force the question of how governments "earn" their revenues. The viability of grants exports depends, to some extent, on the maintenance of the image of Indian reservation labor forces as "unskilled and unreliable" and in need of federal programs to achieve competitive standards in some mystical future.

Reviewers have commented that this portrayal does the Indian community a profound disservice, that it is misleading, morally irresponsible, and patronizing. "What you seem to be suggesting is that existing data about poverty and unemployment are merely a ruse for sustaining the 'grants' economy." In part "yes," but for the most part I think "no." The poverty and unemployment are real enough. The terms and conditions of the grants economy were imposed by Washington. I do not think

that I nor the Indian communities would replicate them if given the chance.

This is the moral heart of dependency, which makes dignity and integrity the price of survival. It is not congenial to confront. Program grants are forthcoming only if one is both unemployed and untrained. Employed people are, by definition, trained. To be trained and unemployed, therefore, is a logical contradiction. If these unemployed stop actively looking for jobs, through disillusionment or despair in confrontation with a lack of opportunity, they are actually dropped from the statistical tabulation of the "labor force"! Irrespective of the actual availability of jobs, they are no longer considered part of the labor force and are therefore no longer statistically "unemployed."²⁷ There is a Catch-22 quality about this situation to which I cannot claim authorship. It appears to be a product of an ethos, reflected in government policy, that is unable to come to grips with the actual face of either "community" or "poverty."

Given the options, what course would you choose? This discussion is, in part, my response, complete with a carefully reasoned argument based in development economics, that at least one reviewer has chided as being "a little too long." I do not want the next Commission to miss the point.²⁸

The Presidential Commission employed an explicit research methodology to reach the conclusions in its report, including the characterization of reservation labor forces as "unskilled and unreliable."

The President's Commission on Reservation Economies proceeded upon the assumption that Indian reservation economies were an integral part of the national economy and not distinctly separate third world economies. In conducting its study on Indian reservation economies, therefore, it did not explicitly rely upon theories such as the Rostow linear stages model, the Harrod-Domar growth model, the Marxist neo-colonial dependence model, the false paradigm model, or even the Dualist model, as sources to explain Indian reservation underdevelopment. . . . The Commission recognized that no Indian tribe or nation can simply import an Industrial Revolution from without, unpack it like a piece of machinery, and then set it in motion.²⁹

Rather,

the Commission began work with three assumptions. The first assumption was that obstacles impairing Indian reservation economic development are *known by the Indian people*. The second assumption was that the technology for analyzing how obstacles impeded economic success was also known and could be applied to studying the problems. The third assumption was that the President's [American Indian Self-Determination] Policy Statement of January, 1983 would set the parameters within which recommendations would be made (emphasis added).³⁰

Following the first assumption, the Commission simply asked the tribes what the obstacles to development were. Mindful of the thousands of jobs made available under the rubric of "Comprehensive Education and Training, or CETA," should we be surprised that strenuous efforts were not made to alter the portrayal of reservation labor as "unskilled and unreliable?" The Commission acknowledged that CETA programs were flawed, given their overt mission. However, following the second assumption, that alternative strategies could be devised, the call is for more but better and different training programs. Therefore, the Commission recommended that

tribal governments focus their training programs on private sector labor markets where jobs exist, or on private business development activity which is creating private sector labor markets.³¹

However, there are between 6,000 and 7,000 jobs on the Navajo Nation currently held by non-Navajos. Most of these jobs are in the public sector, primarily in education and health care.³² A more rational policy would be to fill these existing jobs with qualified Navajos. People on the Navajo Nation are acutely aware of these employment opportunities but are extraordinarily frustrated in attaining the credentials needed to occupy these positions. As of early 1986, there were about 3,500 Navajo students engaged in post secondary education.³³ Unfortunately, the freshman dropout rate is between 70 to 80 percent, and probably one student in ten will ever earn a degree.³⁴ It is then little wonder that 50 percent of the job applicant population in the Navajo

study had some post secondary education, since they were largely college dropouts.

Navajo development might proceed more effectively by replacing the permanent, transient non-Navajo work force with Navajos who will make investments in a future on the reservation and, in doing so, provide more effective role models for future generations.

In fairness to the Commission's findings, the Navajo private sector, particularly the residency base, is profoundly underdeveloped. Only recently the domain of the trading post; it has been estimated that between 80 to 95 percent of all export base derived revenues immediately leave the reservation and are spent in reservation border towns, principally Gallup, Farmington, and Flagstaff.³⁵ In rural Arizona and New Mexico, outside the reservations, there is one job in wholesaling and retailing for every seventeen people. The reservation ratio is about one job for every one hundred people. If the reservation were to reach the ratio of other rural areas, and adjustments were made for differences in per capita income, perhaps nearly 3,000 new jobs would be created. Unfortunately, small business is a difficult area to target effective training programs. Trial and error in actually running a business is probably the most effective teacher, and the establishment of policies favorable to small business would be the most effective form of support.³⁶ An important step in this process would be to increase the numbers of Navajos employed in the export/entitlement sector to positions in which they can effectively patronize local business.³⁷

DEVELOPMENT POLICY: OPTIONS AND CHALLENGE

It is argued that the ongoing portrayal of reservation labor forces as "unskilled and unreliable" provides access to entitlements important to the reservation economy. Furthermore, the Presidential Commission accepted this portrayal without objective empirical evidence, actually participating in constructing and maintaining this image. The Commission was, however, serving the President, and indirectly, the budgetary process in Congress. Being unskilled, unreliable, and unemployed is apparently an acceptable entitlement, justifying a grant "exchange" in the current American governmental ethos. While not achieving their

targeted objectives, these revenue flows do support local development by providing employment in the export base. In lieu of an effective strategy and program of rural reservation development, it is wise to do as much as possible to maintain existing cash flows. The reservation is being stimulated toward development in spite of a convoluted rationale. Skills and unskills are viable in the Navajo export base, and both can provide an impetus to economic development. Dependency in the Navajo context reflects a misuse of talent.

We should not be surprised if local governments organize to maximize export earnings as efficiently as possible. Recognizing that the reservation administrative or institutional structure did not choose to create these conditions, and that they grew from the ideation of government planners, mostly in the Congress, helps to avoid the perjorative connotations that often accompany discussions of "dependency." Nevertheless, this inaccurate portrayal of Indian labor perhaps explains some of the bitterness with which Native Americans sometimes characterize their relationship with the dominant community.

Communities are long term investments. This fact, perhaps, gives Indian reservation development a relevance beyond tribal boundaries because it is here that the actual effects of government programs are most visible in community life. Unlike the inner cities, many Indian reservations remain communities in the best sense of the word. They have not lost their sense of common origins and destinations. They provide a measure of the effects on communities of government programs. From this perspective the present analysis forces a number of questions. How can we assess the Navajo grants economy? What are the alternatives? Must policy reflect reality? If so, which one, the qualitative assessment of the Navajo labor force or the need for a viable export base economy? The choices are difficult.

The argument can continue to be made that reservation development is hampered by the image of an "unskilled, unreliable" labor force. This characterization is acceptable to the Commission and perhaps offers the best chance of ensuring additional federal grants. On the other hand, this portrayal of the labor force makes the reservation unattractive to the private sector, who fear the problems of having to utilize the "hard core unemployed." This portrayal also damages the self-image of Indian young people, thousands of whom have worked hard to attain

their education and skills. Which approach is most likely to serve the long term interests of the Navajo? Does this choice foreclose the search for more viable options? To what extent are these two options forced as to the outcome of the current lack of viable alternative strategies, policies, and commitments on behalf of Indian reservation development?

The answers to these questions are hampered by a lack of hard data on the contemporary Navajo experience in the wage economy. We know very little about sexual differences in employment and how family ties influence migration and careers. We do not have an accurate appraisal of the scale of underemployment or of the skills which are available now but are going unused. How many Navajos are able to establish a viable family life without full-time employment? Why is the Indian dropout rate at area colleges so high? How many of the 6,000 to 7,000 non-Indians employed on the reservation hold jobs requiring professional education? Is higher education *the* most significant barrier to Navajo development at the present? These are all empirical questions toward which little research has been directed in spite of their significance for the long term viability and renewal of Indian communities.

This analysis has argued that the most recent and prestigious policy analysis of reservation economies is seriously flawed in its assessment of reservation labor. Further, the issue of manpower, or most appropriately "person-power," development is not simply a single topic in a catalog of issues but may be central to the development of these economies in the control of their own residents. The field of development economics is currently in a state of disarray much as are the Indian policy initiatives of the Reagan administration. The concept of entitlements is one of the few recent innovations showing promise of influencing future policy.³⁸ Historically, development theory has had a heavy influence on domestic and foreign development strategy and policy. There is a real need for an accurate base of information on the Navajo experience. For the reasons discussed, this need is not likely to be met by the federal government nor, understandably, by the Indian bureaucracy. This is a challenge to the research community.

Finally, many things in the Indian universe tend to flow full circle. This analysis is no exception. Conducted from the perspective of an interested observer, the conclusion returns the problem

to my own door. If at least one significant path to Navajo development lies through higher education, who then is responsible for the terrible dropout rate? Navajo Chairman Peterson Zah (former chairman as of January, 1987) has no trouble assigning that responsibility. "The Navajo Nation has done its part [by making education a top priority], it is now time for the . . . universities . . . to do their part."³⁹

NOTES

1. Vine Deloria, Jr. and Clifford Lytle, *The Nations Within* (New York: Pantheon, 1984), 54.

2. "Latest unemployment estimate is 35.3%," *Navajo Times* (November 2, 1983).

3. Presidential Commission on Indian Reservation Economies, *Report and Recommendations to the President of the United States*, November, 1984.

4. Richard Pottinger, "Return Migration and Rural Industrial Employment: A Navajo Case Study" (Ph.D. dissertation, University of Colorado, 1986).

5. John W. Alexander, "The Basic-Nonbasic Concept of Urban Economic Functions," *Economic Geography* 30 (1954): 246-261; M. J. Wistisen, R. J. Parsons, and A. Larsen, *A Study to Identify Potentially Feasible Small Business for the Navajo*, (Center for Business and Economic Research, Brigham Young University, 1975).

6. Amartya Sen, "Development: Which Way Now?" *The Economic Journal* 93(1983): 745-762; *Poverty and Famine: An Essay on Entitlement and Deprivation* (Oxford: Clarendon Press, 1981).

7. The top five obstacles listed were: 1. Weak business management by tribal government; 2. Jurisdictional disputes among tribes, states, and local governments; 3. Trust status constraints on tribal revenue and investment; 4. Rapid turnover of tribal government and unfavorable business climate; 5. Unskilled and unreliable labor force. About 40 percent of the perceptions of obstacles focused on these five themes. The remaining 60 percent was allocated among 35 additional categories.

8. Presidential Commission on Indian Reservation Economies, 34-35.

9. Lynn Robbins, "Navajo Labor and the Establishment of a Voluntary Workers Association," *Journal of Ethnic Studies* 6(1978): 97-112.

10. "Latest unemployment estimate . . .," *Navajo Times* (November 2, 1983).

11. Alan L. Sorkin, *The Urban American Indian* (Lexington, Mass.: Lexington Books, 1978).

12. Michael Lipton, "Migration from Rural Areas of Poor Countries: The Impact on Rural Productivity and Income Distribution," in *Migration and Labor Markets in Developing Countries*, ed. Richard Sabot (Boulder: Westview Press, 1982). Conventional wisdom and research, largely grounded in neoclassical economics and exemplified by this quote from Michael Lipton, holds that return migrants are "the old, the sick, and the unsuccessful." However, there

is a growing volume of evidence that many return migrants are, in the words of Long and Hansen, "double selected," first by the process of outmigration and again by the trials of return migration, "Selectivity of Black Return Migration to the South," *Rural Sociology* 42(1977): 317-331. The return stream is not large, but it may be significant for rural development, particularly on Indian reservations. A research strategy was devised to test these two perspectives under the harshest conditions imaginable: the high unemployment of an Indian reservation. The findings of this study, documented in my dissertation, found that men who had been continuously employed full-time off the reservation for one year or longer were *five times* more likely to be employed on the reservation, controlling for age, education, and employment experience, than their non-migrant competitors in the labor market. Half the male employees of this reservation employer had previously established a viable economic life off the reservation before returning. The arguments, analysis, and relevant research are detailed in my dissertation. See note 15.

13. General Social and Economic Characteristic of the Population (1980 Census), Volume 1, Part 4, "Arizona," Part 33, "New Mexico," Tables 62, 192.

14. *Ibid.*

15. Richard Pottinger; Robert A. Hackenberg and Roderick Wilson, "Reluctant Emigrants: The Role of Migration in Papago Indian Adaptation," *Human Organization* 31(1972): 171-186; Eric Henderson, "Skilled and Unskilled Blue Collar Workers: Occupational Diversity in an American Indian Tribe," *Social Science Journal* 16(1979): 63-80.

16. Alexander, "The Basic-Nonbasic Concept of Urban Economic Functions."

17. Fairchild operated a semiconductor assembly operation in Shiprock in the late 1960's and early 1970's. At its peak the plant employed over 1,500 people.

18. Thomas A. Hirschl and Gene F. Summers, "Cash Transfers and the Export Base of Small Communities," *Rural Sociology* 47(1982): 63-80.

19. "Entitlement" has a culture-specific definition that differs from the one conceptualized by the development economist. The culture bound interpretation, one shared to a considerable extent by welfare economists, would not consider programs like CETA entitlements like Social Security or Medicare. These programs serve individuals without qualification simply on the basis of their status. CETA-like programs require some form of "qualification" and typically serve some rationale other than their actual effect. At least that is how I interpret the distinction.

20. Sen, "Development: Which Way Now?," 750.

21. "Latest unemployment estimate . . .," *Navajo Times* (November 2, 1983).

22. Gary C. Anders, "Theories of Underdevelopment and the American Indian," *Journal of Economic Issues* XIV (1980): 681-701.

23. This is not to discredit Anders' characterization. Since the completion of the Commission's report, the co-chairman, a Cherokee, has been named to head the Bureau of Indian Affairs. The Cherokee and Navajo reflect different cultural and historical traditions.

24. A task force on Navajo reservation labor relations released their report in Spring, 1985. The report was critical of virtually every reservation employer.

Few Indians hold management positions. The employer cooperating in the present study was severely criticized in spite of an excellent record of labor relations, an 85 percent Indian labor force, and a recent management training program. The chairman and president of the parent corporation were at a loss of what else they could do to promote Indian interests without compromising their operations and were genuinely concerned by the criticism. While their Navajo operations are a small part of the corporation's total business, the Navajo certainly had their full attention. In the opinion of this observer, the Navajo are true masters at keeping their clients on the alert.

25. "Government revenues and expenditures," *Navajo Times* (September 22, 1982).

26. "The 500 Largest Corporations," *Fortune* (June 1981).

27. The Bureau of Labor Statistics defines the labor force as "all employed or unemployed civilians plus members of the Armed Forces stationed or unemployed civilians plus members of the Armed Forces stationed in the United States," *Monthly Labor Review* 108 (July 1985). "Unemployed persons are those who did not work . . . and had looked for jobs within the preceding four weeks." An unemployed person who does not look for a job within every four week period, a time frame long enough to approach every major employer on the Navajo reservation, is no longer considered a part of the labor force. They become an "unperson" or "unstatistic." The "official" unemployment rate of the Navajo Nation, based upon county statistics, is probably about 15-20 percent. This rate has been observed in other "labor surplus" areas like Appalachia, where the actual unemployment is also very high, probably in excess of 50 percent. The unemployment statistic in these circumstances only measures a floating population of job seekers, not unemployment.

28. A reviewer has summed up this problem admirably. I have no fault with his/her interpretation and express my thanks for this clarification. "Program monies vitiate the disastrous effects of the mismatch between labor supply and demand until more low skill jobs can be brought to the reservation or until the Navajo workforce can become better educated. In the interim, reducing the 'grants' economy only means increased poverty and higher unemployment as exemplified by the skyrocketing unemployment rates when the CETA program was rolled back a few years ago." Yet CETA, the Comprehensive Education and Training Act, was grounded on the assumption that people were unemployed because they lacked appropriate education and training, not that there was a desperate shortage of jobs on Indian reservations. We are apparently unable to come to grips with an immediate problem, lack of jobs, except within the rationale of a long term solution, a requalified labor force.

29. Presidential Commission on Indian Reservation Economies, 25.

30. *Ibid.*, ii.

31. *Ibid.*, 56.

32. "Latest unemployment estimate . . .," *Navajo Times* (November 2, 1983).

33. "Zah calls on colleges to aid Indian students," *Navajo Times* (March 19, 1986).

34. "Education still on top, Zah says," *Navajo Times* (January 30, 1986).

35. Wistisen, et. al., "A Study to Identify Potentially Feasible Small Business for the Navajo."

36. Calvin A. Kent, *The Environment of Entrepreneurship* (Lexington, Mass.: Lexington Books, 1984).

37. Development theory is currently suffering the pains of unrealized claims and expectations. Amartya Sen in "Development: Which Way Now?" documents what has worn well in the field and what has failed. P. T. Bauer's "The Study of Underdeveloped Economies" in his collection of essays, *Dissent on Development* (Cambridge: Harvard University Press, 1971), was first published in 1963 and foretold many of the problems since identified. These two papers provide an excellent perspective to the contemporary debate. Iain Prattis' "The Survival of Communities: A Theoretical Perspective," *Current Anthropology* 20 (1979): 361-375, provides an extraordinary comparative perspective on reservation development by focusing on an entirely different population and political context, the people of the Outer Hebrides in the United Kingdom. The crofting adaptation, mixed farming and sheep herding, makes an obvious comparison to the Navajo. Prattis' analysis of family adaptation should be compared with Aberle's for the Navajo (see below).

Kenneth Boulding has written on both the grants economy, *A Preface to Grants Economics: The Economy of Love and Fear* (New York: Praeger, 1981), and on the role of knowledge in *The Image: Knowledge in Life and Society* (Ann Arbor: University of Michigan Press, 1956). There are any number of regional economics texts that provide an introduction to the field such as H. W. Richardson's *Elements of Regional Economics* (Urbana: University of Illinois Press, 1979). Alexander's paper is still highly readable and useful.

Anders does a good job in focusing on the Indian context, but without offering any particular prescriptions. Joseph Jorgensen's "A Century of Political Economic Effects on American Indian Society, 1880-1980," *Journal of Ethnic Studies* 6(3, 1978): 1-76, presents an enormous command of factual information. My principal criticism of this approach is its relevance. There is little doubt that Indians have been heavily exploited. The question is what to do about it. Indian reservations might be likened to oil rich countries in the Middle East. Without their energy wealth, these people would, in many cases, be living within the limits of their traditional adaptations. Their wealth, unlike that of Japan, West Germany, or Taiwan, depends on an accident of geography, not on their personal capabilities. The same rationale applies to Indians.

Philip Reno's *Mother Earth, Father Sky, and Economic Development*, since republished as *Navajo Resources and Their Use* (Albuquerque: University of New Mexico Press, 1981, 1983) presents a broad perspective of the Navajo economy as a production unit. Stephen Kunitz in his recent *Disease Change and the Role of Medicine: The Navajo Experience* (Berkeley: University of California Press, 1983) includes important chapters interpreting the economic context of life on the reservation. His assessment is a form of shock treatment and probably "must" reading for those who consider "development" an epithet. The human costs of underdevelopment are terrible. David Aberle in his "A Century of Navajo Kinship Change," *Canadian Journal of Anthropology* 19 (1, 1963): 21-36, specifically and carefully addresses the question of the effects of an industrial economy on Navajo family structure. Finally, an excellent and highly detailed study of the socio-economics of rural Navajo life is contained in John Wood, Walter Vanette, and Michael Andrew's "A Sociocultural Assessment of the Livestock

Reduction Program in the Navajo-Hopi Joint Use Area" (Flagstaff: Northern Arizona University, 1979). This hard to find study provides a wealth of data on employment, commuting and migration, education, and livestock, of a rural Navajo population under the considerable population-resource pressure of a stock reduction program. As the Navajo population continues to increase, this scenerio in various forms will undoubtedly be repeated.

38. The Western Interstate Commission on Higher Education (WICHE) is currently (November 1986) in the early stages of a major assessment of the status of minorities in higher education in the West. A key issue in this effort is minority student retention. They acknowledge some difficulty in obtaining useful information on Native Americans. If readers would like to contribute or assist in this effort, contact Charles Lenth (303) 497-0221, P.O. Drawer P, Boulder, Colorado, 80302). The project is under the direction of Richard Jonsen, WICHE's deputy director. The product of this effort will go directly to regional and institutional policy makers in higher education. WICHE's affiliate, the National Center for Higher Education Management Systems, has published an excellent book, *What Works in Student Retention* (Boulder: NCHEMS, 1980) by Philip E. Beal and Lee Noel.

The study of labor markets overlaps a number of fields. Conceptual insight on the educational process is offered by Pierre Bourdieu and Jean-Claude Passeron's *Reproduction in Education, Society and Culture* (London: Sage, 1977). The second section of this book really carries the title. Peter Doeringer and Michael J. Piore's *Internal Labor Markets and Manpower Analysis* (Lexington, Mass.: Heath, 1971) is the reference text to the field. Glen Cain's "The Challenge of Segmented Labor Market Theories to Orthodox Theory: A Survey," *Journal of Economic Literature* XIV(4, 1976): 1215-1257, is primarily for economists but is reasonably accessible to the non-specialist. Marcia Freedman's two books, *The Process of Work Establishment* (New York: Columbia University Press) and *Labor Markets: Segments and Shelters* (Montclair, N.J.: Allanheld, Osmun & Co., 1976) are excellent. The first book documents the process of establishing a career in America, a process that was also confirmed for the Navajo in the present study. The second book is unusual in that it pays special attention to women.

More recently there has been a renewed interest in internal labor markets. Paul Osterman has edited a collection of essays and research reports in *Internal Labor Markets* (Cambridge: MIT Press, 1984) that provides an excellent overview of the standard of conceptualization and research in this field. Comparisons to Native American contexts could be quite interesting.

39. "Zah calls on colleges . . ." *Navajo Times* (March 19, 1986).