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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

PSYCHOSOCIAL CHARACTERISTICS OF EMPLOYED AND UNEMPLOYED WESTERN OKLAHOMA MALE AMERICAN INDIANS

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

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degree of

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BY

JOSEPH EVERETT TRIMBLE

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PSYCHOSOCIAL CHARACTERISTICS OF EMPLOYED AND UNEMPLOYED

WESTERN OKLAHOMA MALE AMERICAN INDIANS

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Someone once said that "reading maketh a full man, conference a ready man and writing an exact man." In the progress of any one man's ventures all of these in one way or another serve to mold that man. Indeed, that is the case in this study.

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PSYCHOSOCIAL CHARACTERISTICS OF EMPLOYED AND UNEMPLOYED WESTERN OKLAHOMA MALE AMERICAN INDIANS

CHAPTER I

INTRODUCTION

Purpose of the Study

The purpose of this study is to investigate some of the characteristics of unemployed and employed male American Indians. Specifically, it is concerned with developing a set of predictor indices for assessing the employability of this particular residual population. Furthermore, since little is known about the basic personality of such groups, the results may possibly contribute to further the understanding of the American Indian in contemporary society.

Need for the Study

The employment position of the Indian is much less favorable than any other minority group in the country. In many rural communities in Oklahoma and elsewhere, the unemployment pattern of existence is one of bare subsistance where conditions are analogous to those of the slum areas of many of this country's urban regions.

To alleviate many of these "rawhide ghetto" conditions, the Bureau of Indian Affairs has been encouraging the Indian to leave his native area and relocate in urban regions, where supposedly more jobs are available and the living conditions are more pleasant. Or the BIA has recommended that the Indian leave his very rural environment and move to the smaller towns where at least marginal employment may be pursued, providing that an industrial complex exists.

That attempt on the part of the BIA and employment assistance offices has beset the Indian with many problems centering around adjustment to a new environment, a new daily schedule, and a reorientation of his self-concept. All three of these processes are not compliant with the nature of Indian life and subsequently contribute heavily to the cultural conflict that he may experience.

Indeed, many efforts have been undertaken to assist the Indian in meeting these problems. Vocational training, either in an institution or on-the-job, has been the main focus of most agencies. But, intervention with these efforts appears to be unrelated to the Indian's success in maintaining a particular, long-time job. In fact, Blume (1968, p. 183) found that vocational training of eastern Oklahoma Indians was somewhat related to economic status, duration of employment, and maintenance of any stable job. But, conditions varied between the subjects and the

particular jobs in which they were involved. Another approach must be taken.

Little is empirically known about the personality patterns of the unemployed Indian, much less the employed. On the other hand, an abundance of information exists relevant to the statistics of employment and unemployment rates in varying counties and states possessing predominant Indian areas.

Some explorations of the "total personality" have already been related to the effects of unemployment upon the general attitudes of life held by an individual (Eisenberg & Lazarsfeld, 1938), but this information was obtained many years ago on non-Indian populations.

What is needed, then, is a set of descriptive indices that might be able to assess the self-concept and corresponding sociological elements of the unemployed Indian. An analysis of the unemployed Indian might be enough, but a comparison between an unemployed group and a comparable employed group would be even more revealing not only as to the effect of unemployment on people as a group, but as to how it affects specific types of individuals undergoing cultural assimilation or acculturation.

Acculturation and Its Effects on the American Indian

At this point in our century it has become quite apparent that the population of Indians of the United States is increasing

rapidly in numbers and that the rate of acculturation to white America's ways of life is appreciably slower than many social scientists believed. Prior to this point, the prevailing notion was that of a "vanishing American." Vestiges of this notion are still prevalent and many social scientists are hurriedly trying to gather as much information on the traditional Indian before he vanishes!

Along with this idea, many have felt that the Indian will soon enough be assimilated and thus "Americanized" just as it has happened to other immigrant groups. But there is a vast difference between those groups and the Indian. While the immigrant had a choice to assimilate, the Indian did not (Broom, L., Siegel, B. J., Vogt, E. Z. & Watson, J. B., 1954, pp. 988-989). There is certainly a difference in the motivational structure of an immigrant and an indigenous population!

Several processes have been in operation that have affected the acculturative changes of the Indian. Varying degrees of the total process have been in effect since the Spaniards arrived at Zuni in 1540. Vogt (1957, p. 138) maintained that there has been an important "drifting out" process from almost all Indian populations over the centuries in which individuals and families have left their native settlements to take up residency in certain American communities. Bruner (1953, p. 21) likened this process more to a "draining off," where almost entire Indian populations

have left their reservations to become full participants in another society, leaving behind them a conservative resevoir of more traditional individuals to carry on the "old way of life."

Acculturation taking place in an individual and a system should be differentiated. The individual may undergo much more rapid acculturation than an entire family or set of families. Vogt (1957, p. 138) maintained that this difference between individual change and system in acculturative situations is basic and fundamental.

Another process affecting acculturation centers around the replacement of Indian material culture with goods, techniques, and technological or educational elements of the white man's way of life. No tribe today lives in a total aboriginal state. This does not mean that the total custom has been abandoned. Just because the Osage of Oklahoma were at one time the wealthiest tribe in the world, they didn't necessarily abandon their traditional straight dances, which are probably not too different today than they were 100 years ago.

Most Indian tribes have undergone a process of increasing involvement with the dominant American sociocultural system; economics, education, politics, religion and the like all have basic elements of another culture beside that of the Indian (James, 1961; Braroe, 1965; Chance, 1965; Graves, 1967). Only one tribe today has been just slightly touched by these assimila-

tive processes; the Havasupai, living neatly tucked away in the Grand Canyon, cannot be reached by a car, and as a result have retained much of the traditional ways.

Despite all of these external pressures to change, there are still basic Indian systems of social structures and culture persevering among a great variety of Indian populations. Full acculturation would very unlikely dissipate these cultural features (LaFarge, 1956, pp. 5-14).

The earlier elaborations concerning the rate of Indian acculturation and why full acculturation to white America's ways is not occurring raises a basic question in need of substantiation.

Vogt (1957, p. 139) developed a framework for understanding the process of acculturation by breaking it down into two sets of variables, the nature of the two cultures which come into contact, and the contact conditions. With this as an outline, pursuit will be given to a finer analysis of the process.

The first variable involves such questions as the types of sociocultural integration, settlement patterns, attitudes toward strangers, etc., and the intercultural compatibility of these patterns. "Contact conditions" involve such questions as whether the contact is "forced" or "permissive," or of short duration, intensive or sporadic, etc. (see Redfield, R., Linton, R., & Herskovits, M. J., 1936; Hallowell, 1945; Dozier, 1955 for more elaboration). The reciprocal interaction between these two vari-

ables leads to the intercultural relationships and a concomitant set of changes that many social scientists are beginning to explore.

Certain studies have touched upon the more salient elements of acculturation that, in one way or another, point to the problems, be they psychological or sociological. These studies touched upon three common hypotheses mentioned by Vogt (1957), that account for the persistence of Indian culture in the face of increasing pressure from white America's society toward full acculturation and the complete assimilation of Indians.

One such argument maintains that isolation of the Indian on remote reservations administered by government agencies has insulated them from proper exposure to education, communication, etc. and has prevented them from becoming fully assimilated. While there is merit to this notion, there are some interesting exceptions. Chance (1965) found that the Kaktovik Eskimo male, while living a relatively great distance from any large town, had a greater access to the goals associated with Western identification on a firmer foundation because of his status in the group and the contacts he has made with white Americans. In fact,Chance found that the male underwent less psychological strain and suffered less maladjustment than the female.

Braroe (1965) found that the Saskatchewan Cree has resisted acculturation by developing a self-concept that is reciprocal to

that of the nearby white community that contributes to community stability, but it is riddled with inconsistencies and contradictions.

Other tribes, like the Tuscarora living near Niagra Falls, New York or the Isleta Pueblo, who live within fifteen miles of Alburquerque, New Mexico, continue to maintain many of their old patterns despite their proximity to white America.

Dozier (1955, pp. 38-45) offered the second hypothesis, that "forced" acculturation will result in a high degree of resistance to change in indigenous cultural patterns. Where a tribe had a highly enough traditional sociocultural system, like the Southwestern Pueblo, patterns of resistance were quickly manufactured when "forced" acculturation occurred. Naturally, this hypothesis does not hold where the acculturation process is "premissive" and the group still maintains its old patterns. Moreover, it does not apply to the individual who leaves the reservation to build a new life on the outside. James, in support of this contention, stated that

> . . . where aboriginal personality traits survive, observable persistent aboriginal cultural factors sustain them. Where such personality traits apparently survive without corresponding cultural causation they will be found to be functions of new cultural conditions (James,B.J.,1961,p.721).

The final hypothesis maintains that while the material aspects of a culture undergo change easily, family and kinship institutions are more persistent and that the elements of a style

of life which have been labeled as core cultures, implicit values, cultural orientations, and personality types, are still more persistent(Linton,1936, p.360). This notion only applies to certain more remote tribes that are indicative of the first hypothesis, but there is indeed a great deal of variability, especially in the personality type of the transitional Indian.

Spindler and Spindler (1957, p. 148) found that the psychological features most widely exhibited by American Indians on a whole as ". . . nondemonstrative emotionality and reserve." They emphasized the fact that

> . . . Indian cultures . . . tend to exercise sharp controls on interpersonal, in-group aggression; but that the kinds of controls, what is being controlled, and the purpose of control vary impressively from situation to situation (Spindler, G. D. & Spindler, L. S., 1957, p. 149).

Transitional Indians, according to Spindler (1957, p. 155) would be ". . . individuals who are clearly suspended between the white and Indian ways of life and who are not identified strongly with either native oriented or acculturated social primary groups." The Menominee problem is noteworthy. Spindler and Spindler stated that

> . . . the breakdown among the Menominee is represented particularly in loss of emotional controls that are so important in the traditional setting, in a reduction of active fantasy life, and in the development of marked anxieties accompanied by outbursts of overt and sometimes very destructive hostility. These transitional patterns are unpredictable. They are capable of great generosity and hospitality and are also capable of dangerous violence, particularly when drinking . . . and they drink frequently (Spindler, G. D. & Spindler, L. S., 1957, p. 155).

The transition process is scattered through and through with patterns of deviancy such as criminality, delinquency, suicide, alcoholism, etc. Full acculturation must have some sedative effects on the Indian, especially if he has circumvented the deviant route. Graves (1967, p. 318) maintained that "Acculturation is likely to have consequences for the distribution of social and psychological pressures for engaging in deviant behavior." Associated with that is a disjunction between the personal goals an individual holds and the socially provided means for attainment. Graves (1967, p. 318) maintained that "Acculturation may also effect the social and psychological controls that normally serve to keep socially disruptive behavior within tolerable bounds."

While these aforestated hypotheses give a salient description of the acculturation process, one factor has been somewhat deemphasized and yet is the most important factor of all, the persisting white American "racial" attitude, having its origin during the colonization of the Americas and continuing up to the present. These rather rigid attitudes are directly related to superordinate-subordinate natures of white-Indian relationships. Related to this is the lack of large mixed Indian white populations which could provide cultural paradigms and reference groups along an acculturation dimension.

Part of the problem centers around miscegenation. Many of the barriers to full acceptance are measured by the rate of inter-

marriage, which is relatively low among most tribes. Strong exceptions can be found among the Menominee of Wisconsin, the Wascos on the Warm Springs reservation in Oregon, and in the eastern part of Oklahoma. Undoubtedly, there has been much admixture in all areas over the centuries (Spindler, 1955). But, when the country is taken as a whole, especially in the Southwest, that rate of miscegenation continues to be very low (Shapiro, 1942).

The way to full acculturation and subsequent assimilation has been strewn with confusion and frustration and an ultimate lid has been nailed down by the perseverance of white America's "racial" attitudes. Since a gradual acculturation is not seemingly possible, the Indian must at a certain point surge forward over a specific gap to achieve a fully equitable position in his own country.

With this lid prevailing, one is reminded of what is happening to the Indian who has become well educated by white America's standards and has progressed great distances from his traditional way of life without becoming fully integrated. Instead of finding meaning along tribal traditions, those Indians, along with many other acculturative types, appear to be a part of a movement centered around "Pan-Indianism."

Pan-Indianism has already assumed a form in which increasing numbers of Indians are participating. The customs and institutions

are being synthesized being derived from the many diverse Indian cultures and to an extent from white American culture. Oklahoma reflects such a pattern of informally organized groupings which have joined forces to participate in this movement (Howard, 1955).

While the cultural elements found in this movement, which might well contain similar vestiges as the Ghost Dance and the Peyote Cult, are derived from diverse Indian cultures, it is noteworthy that many of these elements reflect the culture of the Plains Indian: the war bonnet, the Plains-type war-dance, etc. These elements have become distinct symbols of Indianism and to the Indian they bear little relationship to traditional ways. White America, in fact, sees these symbols as elements of what it is to be Indian, and hence reinforce the Indian for behaving according to the pre-established stereotype.

The significant element of Pan-Indianism is that it provides a sociocultural element through which the Indian can maintain his sense of identity and integrity, while the white American continues to relegate him to his subordinate position.

Acculturation, Unemployment and Their Effects on the American Indian

Of immediate concern are the economic characteristics of the Indian. Like many non-Indian families, the Indian families must support themselves. According to the 1960 Census, the median family income was less than $3000.00. This figure does not include

the value of income gained by leasing land, producing and consuming food in the home, and, in certain areas, a home obtained either at cost or cost free. Neither does this figure include certain special economic advantages enjoyed by a majority of Indians: free medical and dental care, subsistence for children in boarding schools, freedom from paying property taxes, and many free services relevant to land management, self-help housing,etc.

The 1960 Census, and other such reports, laying claim to relevant statistics about the econimic and employment statuses could therefore not lay clain to accuracy. There are too many unexplored circumstances and relevant exceptions to the rule that tend to distort the validity of the reports.

Returning to the economic reports, then, the Indian living in rural Oklahoma averaged an income of only $1212.00 in 1959, while Indian residents of the State averaged only $2145.00 for that year. Both of these figures for Oklahoma were below that of all Indians in the country; those were $1348.00 and $2798.00 respectively for the same year (Oklahoma Employment Security Commission report. Indians in Oklahoma, 1966).

Indians residing in a county in northwestern Oklahoma reportedly had a median family income of $847.00, and only 23 of the 552 Indians in that county reported earnings of $2500.00 or more during the year of 1965. That study also reported a median family income of $1350.00 (Oklahoma Employment Security Commission report.

A study of the Indian population residing in Blaine County, Oklahoma, 1966). Indeed, the economic status of that group was far below the generally accepted level of poverty.

According to a similar survey of the Cheyenne-Arapaho tribe in the same area, 23 of 26 families sampled had an average income of less than $2000.00 per year. One family of 17 had an income of $4134.00 for the same period (Department of Interior, Bureau of Indian Affairs report, 1965).

Income, then, appears to vary from county to county in Oklahoma and from state to state. Kelly (1957) found such unevenness among the tribes of the Southwest during the fiscal year of 1956. He reported that the Hopi, Papago, and Salt River Pima tribes had incomes of less than $10.00 per year per capita. The Gila River Pima, Navajo and Taos Pueblo tribes had incomes of less than $50.00 per year per capita. Other incomes were: San Carlos Apache, $103.00; Mescalero Apache, $280.00; Unitah and Ouray, $316.00; Southern Ute, $660.00; and Mountain Ute, $970.00. The last three tribes were distributing income from the settlement of a claims case.

Income certainly is a direct reflection of the inability of the rural Indian to economically adjust to permanently skilled or semiskilled employment. Indian interests and attitudes stand in their way where there is an opportunity to obtain such a permanent position (Kelly, 1957). One possible reason for this is that

Indian values do not lead the individual to consider work, in itself, as a virtue or a source of prestige. Earning money is only a means to an end. The few things that an unacculturated Indian has should have enough attraction to move him to seek more income by way of permanent jobs. That task calls for an unbroken sequence of work days. That routine is what usually stops him. Moreover, wealth, as a prestigious symbol, common to white American culture, is not that important to most Indians outside of those of the Pacific coast. In fact, among certain California and southern Arizona and New Mexico tribes, wealth was until quite recently entirely meaningless.

Employment on a continuous basis is adverse to most Indians, Oklahoma Indians not excluded. The unemployment rate of all Indians 14 years old and over in Oklahoma in 1960 was about 12.1% and sometimes, during off seasonal employment, that figure climbed as high as 23%. One Oklahoma county reported that during 1965, 67.8% of the males were unemployed compared with 87% for females, totaling 71.2% (Oklahoma Employment Security Commission report. A study of the Indian population residing in Blaine County, Oklahoma, 1966). These figures were considerably higher for the remaining population, 4.3% for whites and 4.4% for all other ethnic groups. The Oklahoma Indian had a lower rate than the nation's Indian unemployment for the same year, 14.5% (Oklahoma Employment Security Commission report. Indians in Oklahoma, 1966).

While certain Oklahoma Indians have relocated from their rural environments to larger towns and cities, many of the other rural tribesmen still have lower incomes. Of 479 family heads in certain rural eastern Oklahoma Cherokee households, those reporting employment in 1952 were 45.2% in unskilled labor; 4.5% in semi-skilled; 5.5% in skilled; 4.5% in professional; and 40.2% were self-employed (Brophy & Aberle, 1966, p. 69).

After noting that "American Indians are reportedly the most underemployed minority group in the United States," the Senate Committee on Interior and Insular Affairs stated in 1966

> That Indians remain at the bottom of the economic ladder, have the highest rate of unemployment, live in the poorest housing, and suffer chronic poverty, is a clear indictment of past programs and policies pursued by the Bureau (American Indians -- new destiny, 1966, p. 8311).

The figures stated above are made infinitely more complex because of the basic difference between the traditional culture of Indian tribes and the currently prevailing culture in the United States, and the manner in which the two first came to encounter each other. Added to this complexity is the pattern of paternalism on white America's part and of utter dependence on the Indian's part, which keeps the two groups apart from each other. Kitagawa (1965) maintained that the problem does not lie in the American Indian as a race, but in the relationship between him and the rest of the American population. Therefore, it can never be resolved as long as one group looks at the other as if

the problem is all on the side of the other.

That "pseudo-security" which the reservation offers under the wardship of the government, as well as its continuance with the non-reservation, has burdened the Indian with additional problems of paternalism and subsequent hostilities toward the agency. In this instance, the problem, according to Kitigawa (1965, p. 139), " . . . is that of transition from the state of protection without responsibility for one's own well-being." That transition is beset with a multitude of problems.

Several studies, surveys and reports appear to indicate that the possible causes of unemployment are:

(1) Time orientation on the job - absenteeism, getting to work on time.

(2) Steady employment - a lack of knowledge or acceptance of ideas of full employment renumerations, pride in accomplishment, family financial stability.

(3) Dependence upon government assistance and federal programs to settle financial problems.

(4) Leaving the job - probably as a result of overburdening of wage earner by relatives for support; returning to home area for medical or financial assistance from government; lack of job advances caused by a lack of skills; seasonal employment, etc.

(5) Employer's feelings that Indians are not dependable.

(6) Possible loss of tribal assistance when individuals leave tribal areas, especially rural to urban migration.

(7) Indians feelings of inferiority in a competitive society.

(8) Indian ceremonies and gatherings take precedence over jobs in many cases.

(9) Older family members hold to tradition and influence younger family members not to relocate.

Certain Indians have attempted to bridge the gap between traditional custom and the way of the dominant culture, and many have been successful. Other Indians may view the white man's culture as a reference group and attempt to judge their own behaviors by these standards.

But, however much the Indian attempts to acculturate, he is occasionally refused the privilege of playing a non-Indian role. Reservation Indians cannot go into business for themselves because their legal status prohibits the accumulation of the capital necessary to engage in full-scale farming or ranching. Brarce (1965) has found that because of this certain Indians must define themselves along defensible lines. To the Indian, Braroe maintained, his "irresponsible" performances declare:

> Because I can trick white men so easily, they are not as smart as they think they are. I'm the one who's taking advantage of them. I can make a living by my wits (Braroe, N. W., 1965, p. 175).

And in this sense you get a reciprocal exploitation of one another, one trying to outwit the other.

Gold (1967) found that the urban, acculturated Indian was more similar to the white man in following a predominantly deferred gratification pattern than to the reservation, unacculturated Indian who followed a predominantly immediate gratification pattern.

Gold suggested that:

> . . . low socioeconomic status of reservation Indians undoubtedly had a major role in determining the gratification behaviors, particularly since it has been suggested that socioeconomic factors bear more influence in poverty situations than do ethnic or cultural ones(Gold,D.,1967,p. 177).

In an effort to curb the above problems, as well as many others, the Bureau of Indian Affairs undertook a greatly stepped-up relocation program. The program in essence provided for employment and screening services on the reservation and in non-reservation areas in Oklahoma for employment and social services in some ten major cities.

For the American Indian, who for the first time in his life is about to give up his home on the reservation, the relocation is frought with the vastness of the city and the insecurity therein. To him the city is a strange land, a foreign country. He may speak English and nothing but English. Still the city is a foreign country to him just the same, and the kind of place to which he would rather not go if he could help it.

According to Thompson (1957, p. 95) ". . . many Indians today are chained against their will to an inadequate land base on the reservations." Standards of living depressed beyond the subsistence level on reservations have resulted in unemployment, poor health, poor housing and relief loads. These conditions often manifest themselves in such misunderstood symptoms as hopelessness, apathy, alcoholism and delinquency. Although the

Kennedy-Johnson administration gave the Indians new hope, by embarking on large scale programs of eliminating disease, illiteracy, and poverty among the tribes. unemployment on Indian reservations still is extremely high, while family income remains far below the national average (Nash, n. d.). These factors alone easily explain why many Indians gravitate toward the city in search of better opportunities. Where these are not available, adjustment becomes difficult and many return to the reservation. Those who remain in the urban complex, but are unable to adjust, become a problem to themselves and to the community.

If the Indian had problems at home he usually brought them with him to the urban complex. In addition, urban living brings with it many new, unforeseen problems. Coffey (1967) maintained that rural Indians moving to Oklahoma City, trying to escape poverty, often live under conditions as bad, or worse, than those they left. Moreover, Coffey maintained that the Indian lives in the twilight zone between white man's world and his bonds of ancient culture which include a bitter distrust of white men.

It has been estimated that one of three who leave their native homes, return. Those who stay do yearn to someday return if there were any kind of life to which to return. Indeed, somehow they fail to find a happier life.

This bewilderment is shared by more than 300,000 Indians living in the nation's larger cities (Oklahoma Employment Security

Commission report. Indians in Oklahoma, 1966). Separated from their tribal cultures and lands, they must find places for themselves. Agencies, both government and private, have had limited success in helping them compared with other newcomers to the city.

Many Indians are adamant about relocation problems. The land they own is sacred to them. Some Indians want desperately to retain and maintain the tribal unit. Others, on the other hand, want to dissolve it and divide up its assets. But no matter what the prevailing attitude may be, Indians, maintained Brophy and Aberle (1966), must assume the final responsibility for their own development. Until the Indian learns to decide between alternatives and weigh carefully a plan directed toward full employment and deprivations involved in changing values, they will not know what they really want.

MacGregor (1961-1962) maintained that only a leader, or group of leaders, who are unselfish and understanding and can face failure without bitterness can develop the community.

In addition, MacGregor developed five steps along the lines of community development that any such individual or group may take:

(1) Discussion of recognized needs and problems of members of the community with advisors;

(2) Exploration of internal and external causes of these needs and problems, so the sources of social, psychological, and economic difficulties may be recognized;

(3) Planning and decision making by the community on undertakings to be assumed and priorities for their initiation;

(4) Mobilization of internal resources and leaderships, and then determination of needed outside technical assistance and consultation; and

(5) A mechanism whereby one undertaking leads to a series of related activities directed toward both economic and social growth (MacGregor, G., 1961-1962, p. 241).

The Present Problem

The problems of this study concern the unemployed Indian and how he compares with the employed Indian. Previous studies have neglected to pinpoint the basic characteristics of this particular subgroup. However, they alluded to the possible causes of unemployment and have in part attributed it to the white American's subordination of the Indian, and the Indian's attempt to stabilize an identity while undergoing an acculturation process.

In part, this study will fulfill part of the suggestions made by MacGregor (1961-1962). He recommended an exploration of the internal and external causes of certain needs and problems. That the Indian needs employment is a statement that goes without saying. But what occurs during this attainment in relationship to his self-conception is not that simple.

Little is known about the personality characteristics of the unemployed population per se, much less the Indian. What is known concerns certain speculations garnered over the years concerning the effects of unemployment on the person, his family,

and on the structure of society as a whole. The Indian's problems have been discussed and explored briefly by many, but the Indian is involved in a contemporary society and contemporary living besets him with many choices. These choices leave their tolls.

The data in this study will provide an opportunity to re-examine some of the policies of many institutions that attempt to resolve the economic and employment statuses of the Indian. In addition, it will serve to shed some light onto the basic self-conceptions of both subgroups.

Hypotheses

1. A set of *a priori* psychosocial variables can serve as an index for discriminating between unemployed and employed male American Indians without prior knowledge of one or the other group's employment status.
    a. Such a set of indices can serve to predict the probability of being associated with one group or another.
    b. Unemployed Indians are a more homogeneous group than employed Indians.

2. There are certain basic differences in the self-concept between unemployed and employed male American Indians.
    a. There are no differences in the measures of social poise between unemployed and employed Indians.
    b. Employed Indians conform more to social responsibilities than unemployed Indians.
    c. Employed Indians are more alert to moral responsibilities than are unemployed Indians.
    d. Employed Indians have a greater capacity for independent thought and action than unemployed Indians.
    e. There are no inter-tribal differences in the self-concepts of employed and unemployed Indians.

3. The degree of social acculturation is greater for the employed than for the unemployed Indian.

CHAPTER II

INSTRUMENTATION

To evaluate and assess the psychosocial characteristics of unemployed and employed male American Indians two measuring devices had to be obtained or developed. Specifically, a labor force survey seemed necessary in order to obtain the social (i.e., demographic) variables and a personality inventory to assess the psychological variables. Each scale had to be inclusive enough to obtain information on as many characteristics as possible, while not neglecting brevity, succinctness, reliability and validity.

Labor Force Survey

Since the purpose of the study was to obtain a psychosocial classificatory system, specific consideration had to be given to the sociological characteristics of both groups. These characteristics had to be possessed by both groups with variation due only to employment status and anticipated individual differences. Information regarding the demographic characteristics of Ss could have been obtained by referring to the employment applications used by the Bureau of Indian Affairs and the Sequoyah Mills car-

pet factory in Anadarko. Unfortunately, neither employer allowed for the differentiation of race, and thus eliminated the possibility of going directly to the files for the employed sample, and of using their forms in the study.

Fortunately, several of the more descriptive items found on the aforementioned applications were useful in developing many of the items used in the Labor Force Survey. In addition, several specially selected items were taken from the surveys conducted by Blume (1968, pp. 209-214) and Albaugh, Phillips and Rogers (1968, p. 44f).

The remainder of the comprehensive survey form was composed of the 10 classificatory systems used by the Dictionary of Occupational Titles, (1965).

The complete comprehensive Labor Force Survey contained a total of 51 items which were designed to measure many demographic characteristics ranging from age, tribal affiliation, job preference and other essential variables. A complete copy of the Labor Force Survey is presented in Appendix A.

The Personality Inventory

The other phase of the study attempted to determine the specific way an individual perceives himself (i.e., his self-concept). There was a great deal of concern at first as to whether or not a scale existed that could be used reliably with non-reservation American Indians due to their bilingualism. A

careful survey of the literature indicated that heretofore only projective techniques had been used to measure personality adjustment. Chance (1965), James (1961), and MacGregor (1946) used both Rorschach and Thematic Apperception Test measures to assess such characteristics among the Eskimo, Objibwa, and Sioux respectively. However, those instruments only measured a few personological characteristics and were specifically designed within themselves to be used with nonnormal populations.

What seemed to be needed was an instrument that assessed the total self-concept, that is, as complete a measure that could be obtained in a single sitting.

Before such an instrument could be obtained a workable, operational definition of the self-concept had to be developed. Typically, the self-concept is viewed as the I -- "myself as I really am," (Turner, 1968). However, such a viewpoint is a slight glossing over of what one's self-concept might be. As Gordon points out:

> The self is not a thing; it is a complex process of continuing interpretive activity -- simultaneously the person's located subjected stream of consciousness (both reflexive and nonreflexive, including perceiving, thinking, planning, evaluating, choosing, etc.) and the resultant accruing structure of self-conceptions (the special system of self-referential meanings available to this active consciousness) (Gordon, C., 1968, p. 116).

Continuing on this matter Turner maintains that:

> . . . my self-conception is a vague but vitally felt idea of what I am like in my best moments, of what I am striving

> toward and have some encouragement to believe I may achieve, or of what I can do when the situation supplies incentive for unqualified effort (Turner, R. H., 1968, p. 98).

Therefore what one may really be is not viewed as an objective process with the person perceiving himself as a simple object unto himself. But rather the

> . . . self may be perceived in either categorical or attributive terms. The relevant categories denote the "kind of thing" the object is, whereas the attributes describe the object in terms of qualities that differentiate it from others of its kind (Gordon, C., 1968, p. 117).

While the preceding statements are not empirical they render a sufficient explanation of the self and the conceptual process. In themselves they are logically consistent, but the self-concept must herein be treated more empirically. Therefore, there must be some available method for translating the individual's self-conceptions (available only to him) into self-representations available to a researcher. Such a procedure would allow the researcher "to organize the data into patterns which are themselves meaningful and which yield substantial relations to appropriate external variables (Gordon, C., 1968, p. 117)."

These patterns indeed constitute the personality of an individual and

> When an individual is assigned the task of evaluating himself, whatever the method of this evaluation, he inevitably makes reference to a system of central meanings that he has about himself and his relations to the world about him which we call the self-concept. Every evaluative statement a person makes about himself may be thought of as a sample of his self-concept, from which may be inferred certain

properties of that self-concept (Brownfain,J.J., 1952,p.598).

In turn, then, "the self-conception consists of a selective organization of values and standards, edited to form a workable anchorage for social interaction (Turner, R. H., 1968, p. 105)." Hence, what was needed was an instrument that assessed the self-concept of an individual and permitted one to project himself in interactive terms within the environment. Of the many personality inventories available, Gough's California Psychological Inventory seemed to fit this criterion the best.

According to Gough (1964), the California Psychological Inventory (hereafter referred to as the CPI) was developed with the goal in mind of establishing descriptive concepts which possess broad personal and social relevance. Moreover, Gough developed an inventory with the above in mind that had a widely pervasive applicability to human behavior and which, in addition, was related to the favorable and positive aspects of personality rather than to the morbid and pathological. Thus, the inherent aim of the CPI was to provide valid and utilitarian measures of the essential personological dimensions of the social personality.

The CPI consists of 18 scales intended to cover one important aspect of the social personality or self-concept, and the total set is intended to provide a comprehensive survey of an individual from a social interaction viewpoint. These 18 scales are grouped into four broad categories, seeking to emphasize some

of the psychological and psychometric clusterings which exist among them. These classes and the scales most closely associated with them are listed below.

Class I. Measures of Poise, Ascendancy, and Self-Assurance
1. Dominance (Do)
2. Capacity for Status (Cs)
3. Sociability (Sy)
4. Social Presence (Sp)
5. Self-Acceptance (Sa)
6. Sense of Well-being (Wb)

Class II. Measures of Socialization, Maturity, and Responsibility
7. Responsibility (Re)
8. Socialization (So)
9. Self-Control (Sc)
10. Tolerance (To)
11. Good Impression (Gi)
12. Communality (Cm)

Class III. Measures of Achievement Potential and Intellectual Efficiency
13. Achievement via Conformance (Ac)
14. Achievement via Independence (Ai)
15. Intellectual Efficiency (Ie)

Class IV. Measures of Intellectual and Interest Modes
16. Psychological-Mindedness (Py)
17. Flexibility (Fx)
18. Femininity (Fe) (Gough, H. G., 1964, pp. 10-11).

Although the four classes incorporate similar scales they are neither psychometric nor factorial categories. Such a clustering is designed to facilitate clinical interpretation. According to Gough, the scales in Class I share a common emphasis on feelings of interpersonal and intrapersonal adequacy. Those in Class II are primarily concerned with social norms and values. The scales in Class III are presented together because of their

common bearing on matters of academic and intellectual endeavor. Class IV scales vary independently of each other, and are believed to reflect attitudes toward life of broad and far-reaching significance.

While Gough has taken great precaution in developing his CPI, much criticism has been directed toward his method. Shaffer (1959) indicated that "the CPI appears to be a major achievement." Cronbach (1959), while highly criticizing Gough's atheoretical approach, granted applause for his skill in developing such a valuable instrument. To the contrary, Thorndike (1959) maintained that the CPI scales ". . . provide a very redundant, inefficient, and confused picture of individual personalities." Perhaps the latter criticism is a bit unwarranteed simply because the CPI does not fit any theory of personality. Being tied to such a theory might not have allowed Gough to develop such a broad measure, a measure needed for the type of study in question.

One point of confusion, however, centers around Gough's grouping of the 18 CPI scales into four classes. Such a grouping apparently was based on Gough's clinical experience and on very little empirical evidence. In view of this, Mitchell and Pierce-Jones (1960) factored the 18 standard CPI scales and extracted four factors. They identified the factors as: I. Adjustment by Social Conformity, II. Social Poise or Extroversion, III. Super-ego Strength, and IV. Capacity for Independent Thought and

Action. The inclusion of the scales in each factor were depicted as follows:

Factor I
- Sense of Well-being
- Responsibility
- Self-Control
- Tolerance
- Good Impression
- Achievement by Conformance

Factor II
- Dominance
- Capacity for Status
- Sociability
- Social Presence
- Self-Acceptance

Factor III
- Responsibility
- Socialization
- Communality
- Femininity

Factor IV
- Capacity for Status
- Social Presence
- Tolerance
- Achievement by Independence
- Intellectual Efficiency
- Flexibility

Mitchell and Pierce-Jones suggested ". . . that individual personality based on the CPI might use only those scales best representing the four factors identified."

Nichols and Schnell (1963) factored the various items of the CPI and found the first two factors found by Mitchell and Pierce-Jones. Continuing on, Nichols and Schnell found that their first two factors paralleled closely those established by

Gough. While Mitchell and Pierce-Jones preferred to label their first two factors, "Adjustment by Social Conformity" and "Social Poise," Nichols and Schnell chose the names, "Value Orientation" and "Person Orientation" respectively. However, Nichols and Schnell did not subject all of the items to a factor analysis. At best, then, the Mitchell and Pierce-Jones findings contributed to a more empirical grouping of the four classes, which was not too much of a deviation from Gough's findings.

The reliability and the validity of the CPI have been subjected to rigid examination. Gough (1964) indicated that the consistency of measurement was high enough to permit use of the scales in both group and individual testing. Moreover, the problem of testing and re-testing the reliability of the CPI is relatively simple, while validation requires several studies on each scale to determine in fact that it measures what it purports to measure. In fact, using the Kuder-Richardson method the test-retest reliabilities correlate in the .70's. Every one of the 18 scales has been validated at least once and the findings appear in the manual of the CPI. In support, Gough (1964) maintained that "In every instance, it should be emphasized, the evidence presented is drawn from cross-validational studies of the inventory."

The CPI has also been translated into several foreign languages (Japanese, French, German, Italian, among others) and has

been used with moderate success. Because of the overall features of measurement and its possible breadth of application and utilization, the CPI was selected.

CHAPTER III

METHOD

Characteristics of the Subjects

In any study involving the American Indians, one is handicapped by the difficulties in defining who is an American Indian. To a certain extent this is a problem with any group of racially mixed ancestry and varying degrees of acculturation. The legal recognition of the American Indian as a group with special rights deriving from its aboriginal status, without the development of an overall legal definition, leads to additional complications.

Typically, the term "Indian" usually includes all persons normally considering themselves parts of the Indian community, including both members of tribes not federally recognized and some persons not included in Census tallies (Hadley, 1957). In this study, the term American Indian referred ". . . to full-blooded American Indians, persons of mixed white and Indian blood and if they were enrolled on an Indian tribal or agency roll or if they were regarded as Indians in their communities." Moreover, "a common requirement for such enrollment is that the proportion of Indian blood be at least one-fourth (U. S. Bureau of the Census,

Subject reports, nonwhite population by race, 1960)."

Ss who participated in this study were selected from a stratified sample of both employed and unemployed American Indians who came from predominantly populated Indian areas of western Oklahoma. The Census defines an Indian area as "(those) areas (which) comprise most counties having 2,500 or more Indians." Such was the case with Comanche and Caddo counties which had Indian populations of 2,522 and 3,098 respectively (U. W. Census of Population,1960). Such figures vary from time to time and, more than likely, the population has indeed increased since 1960.

Both samples were selected on the basis of their availability during the time the study was being conducted (August, 1968).

In all, there were 139 Ss who participated, 59 unemployed Indians and 84 employed Indians comprising three different areas in the locale. Table 1 shows the county in which each S was born, and Table 2 shows the town in which each S resided at the time of the study. In addition, Table 3 displays the counties in which Ss were currently residing. Specifically, Table 3 indicates that 94 Ss comprising both groups came from Caddo County while 10 Ss came from Comanche County. Moreover, Table 3 also indicates that 21 Ss came from Canadian County, the location of the Concho Indian Agency, which serves the Indian population in the northwest quadrant of Oklahoma. The remaining 14 Ss came from counties that directly touched Caddo, Comanche or Canadian counties.

TABLE 1

County of Birth of the Samples

Sample[a] \ County of Birth	Adair	Atoka	Blaine	Beaver	Caddo	Canadian	Choctaw	Comanche	Creek	Custer	Grady	Greer	Kay	Kingfisher	Kiowa	McCurtain	McIntosh	Mayes	Muskogee	LeFlore	Pawnee	Okmulgee	Payne	Washita	McKinley, N.M.	Moody, S.D.	Shannon, S.D.	TOTAL
UnEm-Anad.		5			12	1		22							2						1							43
UnEm-Law.								6		1																		7
UnEm-Waton.			3			2				2			1											1				9
Em-SM-Anad.	1			1	15			13		1	2	1			3						1	1		1				40
Em-BIA-Anad.	1				6	1		5					1		2		1								1			18
Em-BIA-Concho	2		3		1	1	1	2	1	1				1	1	2		1	1	1			1			1	1	22
TOTAL	4	5	6	1	34	5	1	48	1	5	2	1	2	1	8	2	1	1	1	1	2	1	1	2	1	1	1	139

Note. -- [a]UnEm = Unemployed; Em = Employed; SM = Sequoyah Mills; BIA = Bureau of Indian Affairs; Anad. = Anadarko; Law. = Lawton; Waton. = Watonga.

TABLE 2

Town of Residence of the Samples at the Time of the Study

Sample[a] \ Town of Residence	Anadarko	Apache	Binger	Broxton	Calumet	Carnegie	Cement	Colony	Concho	Elk City	Elgin	El Reno	Gracemont	Kingfisher	Lawton	Meers	Mountain View	Shawnee	Snyder	Verden	Washita	Watonga	Yukon	TOTAL
UnEm-Anad.	19	8	1			6							4		1		2	1	1					43
UnEm-Law.															6	1								7
UnEm=Waton.																						9		9
Em-SM-Anad.	22	3	3	1		4	1				2				1					2	1			40
Em-BIA-Anad.	16					1									1									18
Em-BIA-Concho					2				3			13		1									3	22
TOTAL	57	11	4	1	2	11	1		3		2	13	4	1	9	1	2	1	1	2	1	9	3	139

Note. -- [a]UnEm = Unemployed; Em = Employed; SM = Sequoyah Mills; BIA = Bureau of Indian Affairs; Anad. = Anadarko; Law. = Lawton; Waton. = Watonga.

TABLE 3

County of Residence of the Samples at the Time of the Study

Sample[a] / County	UnEm Anad	UnEm Law	UnEm Wat	EmSM Anad	EmBIA Anad	EmBIA Concho	TOTAL	Indians in County[b] (1960 Cen)
Blaine			9				9	949
Caddo	40			37	17		94	3098
Canadian						21	21	655
Comanche	1	7		1	1		10	2522
Grady				2			2	185
Kingfisher						1	1	197
Kiowa	2						2	683
TOTAL	43	7	9	40	18	22	139	8289

Note. --[a]UnEm = Unemployed; Em = Employed; SM = Sequoyah Mills; BIA = Bureau of Indian Affairs; Anad. = Anadarko; Law. = Lawton; Waton. = Watonga.

[b]It is speculated that these figures have increased considerably.

Because the geographical area surveyed was at one time the ceded reservations of the Cheyenne-Arapaho, Kiowa, Caddo, Whichita, Comanche and Apache tribes it was expected that such tribal affiliations would predominate in the sample. Moreover, due to the mobility patterns of many of the American Indians it was expected that other tribes would be represented. The tabulations in Table 4 clearly indicate such a distribution. The Kiowa tribe was most represented with 25 Ss in the employed sample and 17 Ss in the unemployed sample. In order of representation, the Comanche tribe had the second largest with a sample of 21 Ss, 11 unemployed and 10 employed. The Cheyenne and Cheyenne-Arapaho tribes had a representation of 19 Ss, 7 employed and 12 unemployed.

Again, Table 4 indicates that there are 19 tribes represented in the employed sample, 10 of which are indigenous to western Oklahoma, 5 coming from other areas of the state, and 2 from outside the state. Fifteen tribes are represented in the unemployed sample, 10 native to the sampled area and 5 from other areas in Oklahoma.

Sampling Procedures and Administration of Instruments

In gathering the samples, it was necessary to distinguish between an unemployed and employed male. Employed Ss comprised all those during the survey period who did any work at all as paid employees, either in their own businesses, professions, or farms; or for some organized institution, be it industrial,

TABLE 4

Tribal Distribution of the Samples

Group \ Tribe	Apache	Arapaho	Caddo	Cheyenne	Cheyenne Arapaho	Comanche	Delaware	Kiowa	Kiowa Apache	Wichita	Cherokee	Creek	Choctaw	Chickasaw	Pawnee	Sac-Fox	Kaw	Navajo	Sioux	Mixed Indian
Unemployed	2	1	6	6	5	11	2	17	3	3	0	0	0	1	1	1	0	0	0	2
Employed	4	3	5	1	3	10	5	25	2	3	6	3	4	0	0	1	1	1	2	1
TOTAL	6	4	11	7	8	21	7	42	5	6	6	3	4	1	1	2	1	1	2	3

professional or otherwise.

Developing a definition of unemployment proved difficult since the definition has almost always been arbitrary (Cho, 1963). Also, unemployment might be compatible with the cultural norms of many of the Indians. Bancroft (1957) maintained that unemployment categories comprise two groups: (1) wageworkers, employers, self-supporting and unpaid family workers who do not work at all and who are looking for work or waiting to hear the results of work-seeking efforts made within 60 days; (2) idle laborers who would have been looking for work except that they are temporarily ill, are waiting to report to a new job from which they had been laid off, or are convinced that no employment is available in their lines of work or in the community. Because of the inclusiveness of this description it was used as a basis of criteria for unemployed sampling procedures. Part two of Bancroft's categories appeared most appropriate for this study. In short, unemployed persons comprised all male Indians who had not worked for six weeks prior to and including the survey month (August, 1968), and who were available for work during that period. Also included as unemployed were those who had never worked at all, and were available for work and (a) were waiting to be called back to a job from which they had been laid off; or (b) were waiting to report to a new wage or salary job within 30 days.

Because of the concentration of industry, professional Indian services, and Indian populations Anadarko, Oklahoma was used as the center of the study. Moreover, the office used for the survey was located in the Bureau of Indian Affairs Agency building, a place well known by most Indians in the surrounding counties. Also, many male Indians were employed by that office.

Surveying the employed male Indian was a relatively simple task in that the sample was readily available. The Bureau of Indian Affairs (hereafter, BIA) at the Anadarko Area Office offered its complete cooperation. There were 30 males employed by the Anadarko agency and 25 by the Concho agency. Although Concho is located some 60 miles north of Anadarko and is under the main jurisdiction of the BIA area commissioner, it serves mainly the Cheyenne and Arapaho tribes, as well as others who may reside in the northwestern sector of Oklahoma.

After obtaining permission from the agency superintendants and a few other individuals of a supervisory capacity, each employed male Indian was approached and told of the nature of the study. The following letter was read to them:

> Dear Friend:
>
> The University of Oklahoma has as one of its many Indian programs a special project concerned with the employment and unemployment of the Oklahoma Indian. Since most Indians are concerned about the welfare of their families and themselves we feel that you will want to help in a survey that will aid the Indian in securing improved hiring conditions.

> Your answers will be used for research and understanding purposes only and your name will not appear on any reports.
>
> We hope the results of this project will be of future aid to you and other Indians and your assistance is needed and appreciated in completing these forms.
>
> We thank you very much for your time and help.

At the Anadarko and Concho agencies respectively, all contacted employees were seated together in a room where they were then administered the survey materials. The Labor Force Survey form was distributed first and was prefaced with the following instructions.

> Please fill out the appropriate survey form as completely and as honestly as possible. Each form will be treated with complete anonymity and discretion. You need not fill in the blank labeled "Name"; however, we want all other blanks filled in with the requested information. In some cases you may not know the exact information, such as acres of land. In this case indicate the closest estimate possible. If there are any questions, raise your hand, and we will assist you.

When the Labor Force Survey was completed, the CPI was distributed along with a hand-scoring answer sheet. Again, Ss were told not to give their names, but to write down their tribal affiliations and ages. Ss were then told to read with the researcher as he read aloud the directions for taking the CPI. Those directions went as follows:

> This booklet contains a series of statements. Read each one, decide how you feel about it, and then mark your answer on the special answer sheet (at this point a demonstration was offered). Make no marks on the test booklet. If you agree with a statement, or feel that it is true about you, answer true. If you disagree with a statement, or feel that it is not true about you, answer false. If you find a

few questions which you cannot or prefer not to answer, they may be omitted. However, in marking your answers on the answer sheet, make sure that the number of the statement is the same as the number on the answer sheet.

At the Anadarko and Concho agencies, 40 Ss participated out of a possible 55. The other 15 possible Ss were not present at the time scheduled for various and sundry reasons. One possible reason could be due to the fact that they availed themselves of the option not to participate. That option was available to all Ss.

The other 44 Ss, which made up the rest of the employed sample, were taken from the Sequoyah Mills factories at Anadarko and Elk City. The same sampling procedures were used in both areas. An initial contact was made with the personnel director, who in turn referred the researcher to the vice president for permission to enter the plant and conduct the survey. Permission was granted on the assumption that each S had the option of participation.

Through the cooperative efforts of the personnel director, Indian foremen and supervisors were contacted and told the nature of the project. After giving their consent, they proceeded to locate the various male Indian employees and to distribute the letter mentioned earlier.

Each S who consented to participate was given an envelope containing the Labor Force Survey and the CPI along with the ap-

propriate directions. The personnel director at the Anadarko Sequoyah Mills factory assisted the researcher in administering the survey to those Ss.

The foremen and supervisors were administered the scales first, with 24 foremen and 2 supervisors participating. Then, each foreman requested those Indian males employed under him to participate in the survey. Because of work shifts, illness, and other delays only 14 participated. In all, then, the Anadarko plant supplied a total sample of 40 out of an estimated 150 Indian male employees.

Similar approaches were made at the Elk City plant, but somewhere during the survey period approximately 90% of the male Indians left their jobs. At that time, the Cheyenne and Arapaho tribes received a claims readjustment for some $2300.00 per individual. Prior to this incident, 4 Ss participated. These 4 were foremen who, despite receiving the per capita payment, remained on the job. At this point the project was terminated at the Elk City plant, but the 4 CPI scales obtained were retained for evaluative purposes.

The risk of any sampling bias was slight with the sample from the BIA, but such a bias might well be in existence with the Sequoyah Mills population. To begin with, only those who were on the day and early evening shifts participated. Because of the inability to contact anyone on the late night shift, it was

excluded. Secondly, only the foremen who were Indians were informed of the survey and they, in turn, informed only those Indians working under them. Since Sequoyah Mills is not permitted to maintain records on ethnic identity, it was difficult to find out in what section of the plant an Indian was employed. Hence, the only means of contact was through the Indian supervisors and foremen. There may have been other male Indians employed under non-Indian foremen who were excluded from the sample. With an exclusion of males from the late night shift and from other sources, such a sample should be viewed as slightly biased.

Gathering the unemployed sample was much more complicated since there were few individuals in the Anadarko area who could put their finger on them. However, through the combined efforts of the Social Services and the Employment Assistance offices at the Anadarko Agency a list of 75 "hard-core" unemployed males was drawn up. Those individuals were supplied the working definition of unemployment and from that they based their decisions. They also used an age range from 18 to about 50 (some of those at the latter age level were not certain of their birth-dates). In addition, they attempted to list those who were known to resist adamantly any form of employment. Also included with the names was a list of each S's last known place of residence.

Again it must be pointed out that this represents a biased sample. Typically, there may have been other male Indians who

were unemployed at the time, but neither their names nor their addresses were known. Those selected were the ones most readily known by the office staff. From the descriptions given of each selected S, it was determined that they all met the criteria for unemployment.

The Community Action Agency office in Watonga, Oklahoma which serves the Blaine County region, assisted in obtaining other unemployed males. The Blain County region has the highest purported unemployment rate in Oklahoma, where it has been estimated that 67.8% of the male Indians were unemployed in 1966 (Oklahoma Employment Security Commission report. A study of the Indian population residing in Blaine County, Oklahoma, 1966). That agency also drafted a list of 50 unemployed males using the same criteria indicated earlier.

Other assistance was obtained from the Lawton office of the Oklahoma Employment Security Commission. There, again, a list of 25 males was drawn up under the same prescriptions.

Unemployed Ss were first sampled in Anadarko, then Watonga and ended with the Lawton area. In each area the first approach consisted of sending out a postcard to the selected S containing the following information and request:

8/12/68

Dear Friend:

The American Indian Institute at the University of Oklahoma is in need of your assistance.

They are conducting a survey of employed and unemployed Indians for purposes of securing improved hiring conditions. Would you please report to the Branch of Employment Assistance, Anadarko Agency, Anadarko, Oklahoma, sometime this week, between the hours of 9 a.m. and 5 p.m.

Your cooperation would be most appreciated.

Thank you

The researcher and an office assistant of Indian extraction waited for each S. When S arrived, he was directed to a testing room and given the same identical directions given to the employed sample. That procedure was carried out for a week. At that time, a follow-up postcard was sent out which read:

8/19/68

Dear Friend:

This is a reminder.

Recently the American Indian Institute at the University of Oklahoma requested your assistance.

They are conducting a survey of male Indians for purposes of securing improved hiring conditions. Would you please report to the Branch of Employment Assistance, Anadarko Agency, Anadarko, Oklahoma sometime this week, between the hours of 9 a.m. and 5 p.m.

Thank you

The first procedure netted only 10 Ss in the Anadarko area, 7 Ss in the Watonga region, and 6 Ss in the Lawton area. At that point it was decided to abandon the "postcard method" as well as gathering further samples in Watonga and Lawton due to the apparent lack of response. Moreover, that procedure was possibly hampered by the attendance of many of the Indians at local and regional pow-wows which are predominant during the month of August

in Oklahoma.

The second contact procedure was initiated at the beginning of the second week of the project. Through the efforts of the superintendent of the Anadarko Agency, four Indian females indigenous to the Anadarko area were employed. They were informed of the nature of the project and shown the list of unemployed males in that area. Then, at particular times of the day, one or two of them would attempt to locate the selected Ss. The researcher travelled with them, and when S was located he was explained the nature of the project following the outline of the letter read to the employed sample. If S consented to participate, he was the Agency office where he was read the directions and then administered the survey materials in a fashion much similar to that used with the other unemployed and employed Ss. On several occasions, Ss were taken in pairs since they said they would not participate alone. In fact, they would also assist the team in locating their friends who were currently unemployed and fit the necessary criteria.

In some instances Ss were located in bars, pool halls, or the local jails. If they were incapacitated they were asked to report the next day at an appointed time. Only three of the nine Ss found in these locales came in and completed the survey forms. The other six Ss were contacted again and five of that group consented. The one who failed to show up was a known alcoholic and

was rejected since he was never in a sober state.

Use of the indigenous personnel proved extremely valuable. The females not only knew the individuals, but they also knew where to find them if they were not at their last listed residences. The survey would not have been completed without their cooperation and time.

Of the 75 unemployed males, 65 were found and approached with the appropriate information. Thirty-seven were sampled, while the others refused for one reason or another. Ten of the 75 could not be found either because they were not at their homes or had left the area. Most of the 37 Ss who did participate appeared eager to assist in resolving their own personal problems dealing with unemployment. The same was true of the small samples taken from Watonga and Lawton respectively. In fact, many Ss discussed their own work problems and those of others in general when they completed the surveys. Perhaps that element of motivation to participate might have added to the already existing bias in the sample.

After each S completed the survey materials, both forms were inspected for possible errors and omissions. If errors or omissions were found, S was asked to complete or fill in such errors. At that point S was dismissed and thanked for his participation. As indicated, many employed and unemployed Ss remained at the survey center and openly discussed the problems of unemployment with the researcher.

CHAPTER IV

RESULTS

The data from both the CPI and the Labor Force Survey were coded and punched into IBM cards. Card One contained the scores obtained on the CPI (see Appendix B) and Card Two contained the coded information for the Labor Force Survey (see Appendix B and C respectively). Appendix D is a copy of the original observations for all Ss included in the study. That information appears in the same sequential order as exists on the IBM cards.

There were 130 Ss who completed all forms properly, 50 in the unemployed sample and 80 in the employed sample. The remaining 13 Ss had completed either the Labor Force Survey or the CPI forms which were used in the data analysis where appropriate.

Method of Analysis

An analysis of the overall Ss was the first statistical undertaking to determine in fact if Ss came from the same populations or whether they constituted samples from two entirely separate populations. In effect, such an analysis was an effort to support the first hypothesis: that a set of *a priori* psycho-

social variables can serve as an index for discriminating between unemployed and employed male American Indians without prior knowledge of one or the other group's employment status.

Group Comparison of Employed and Unemployed Samples

Thirty-one variables meeting the assumptions for at least ordinal scaling were used in this part of the analysis (see Table 8 for a specific listing). Those responses were analyzed by use of a linear discriminant function analysis for two groups, a multivariate statistic most appropriate for this type of analysis (see IBM system/360 reference manual H20-205-1, Scientific Subroutine Package, 1967, pp. 36-38). Cooley and Lohnes maintained that

> (a) discriminant analysis is a procedure for estimating the position of an individual on a line that best separates classes or groups. The estimated position is obtained as a linear function of the individual's n test scores. Since one 'best' line may not exhaust the predictive power of the test battery in distinguishing among the classes, additional discriminant functions, all mutually orthogonal, may be fitted. (Moreover), the multiple discriminant analysis has the advantage that it often leads to a dramatic reduction in the predictor's specie's dimensionality without substantial loss of information. In addition, since by the central Limit Theorum linear functions of variates, multiple-discriminant scores may satisfy the important assumption of a multivariate normal distribution than the original test scores (Cooley, W. W. & Lohnes, P. P., 1962, p. 116).

In addition to serving as an index for discriminating between the groups, the discriminant function analysis will give discrete classifications of each individual with an associated probability for each classification. Also, the discriminant

function will give an overall test of the homogeneity of the variance-covariance matrix (also often referred to as a dispersion matrix). The discriminant function analysis does not provide for a reduction in the number of dimensions as does the factor analysis, but gives a linear function of the original variables which maximally discriminates between individuals by their scores on these variables. The particular program used does not rank the mean, variance, and standard deviation of each of the contributing values from n_1 and n_2 in order of algebraic size, as does the two-group discriminant analysis in the Biomedical Computer Programs (Dixon, 1968). Such an algebraic rank-order process can assist in analyzing the step-wise contribution of each variate to the discriminant process. Table 8 represents a rank order of the variance-covariance matrix and the possible contribution of each variate to the overall discriminant process. Such an extrapolation may assist in the analysis.

The generalized Mahalanobis D-square statistic and the F-statistic were used to test Hypothesis One, that the mean values for each group are different for each group. The Mahalanobis D^2 was computed as

$$D^2 = (n_1+n_2-2) \sum_{i=1}^{m} \sum_{j=1}^{m} a^{ij}(X_{1.i}-X_{2.i})(X_{1.j}-X_{2.j})$$

and the F-statistic as

$$F(m,\ n_1+n_2-1-m) = \frac{n_1 n_2 (n_1+n_2-m-1)}{m(n_1+n_2)(n_1+n_2-2)} \cdot D^2$$

On this topic see Anderson (1958, chapters 6.6-6.8) or Kendall (1957, pp. 145-170) for more information. A D-square of 222.54602 was computed, which is significant at the P<.00001 level of confidence (see Table 5). A chi-square was computed for group prediction and group entered procedures performed by the linear discriminant analysis. With a chi-square of 121 the classification of Ss into Groups 1 and 2 respectively was significant at the P<.00001 level of confidence (see Table 6). These data lend support to Hypothesis One, that such a set of a priori variables can serve to discriminate between unemployed and employed male American Indians.

In addition to the D-square, chi-square and F-statistic computations derived from the discriminant analysis, the particular program used computed the probability associated with the largest discriminant function for each group and each S within each group. Such a computation indicated the probability of each S's association with one group or another. Tables 7a and 7b indicate those probabilities. Moreover, Table 7a indicates that Ss 6, 13, and 49 are more associated with Group 2 (employed) than with the group to which they were a priori assigned. This association might indicate that these Ss are more employable than the rest of the 47 Ss, but has a risk factor attached to such an association. In addition, Table 7b indicates that Ss 3, 18, 21, 25, 52, and 58 are more associated with Group 1 (unemployed) than with

the group to which they were a priori assigned. Again, while these Ss were employed, these data might indicate a high risk factor in their remaining employed.

In reference to Tables 7a and 7b again, 72% of Group 1 have associations where P<.90, while 60% of Group 2 have associations where P<.90. Hence, the information contained in these tables lends strong support to Hypothesis One-a, that such a set of indices can serve to predict the probability of being associated with one group or the other.

With the high percentages of association with Group 1, it might be possible that the unemployed are a more homogeneous group than the employed based on the 31 variables used in the discriminant analysis. In an effort to support Hypothesis One-b, that the unemployed are a more homogeneous group than employed Indians, a rank order of the variance-covariance matrix was constructed to determine what variables contributed more to the discriminant process (see Table 8). However, after careful inspection of these data, it was determined that the support necessary for Hypothesis One-b could not be extrapolated. From a descriptive point of view, Table 8 indicates the contribution of each variable based on its variance to the discriminant analysis. Caution should be used since the total variance of each variable may, in fact, be spurious in relationship to the other variables. Of note, however, is the fact that many of the CPI scale scores

contribute highly to this analysis.

TABLE 5

Generalized Mahalanobis D-Square
Test of Homogenity of Variance-Covariance
Matrix

Groups	D^{2a}	ndf	P
1 - Unemployed	222.54602	$n^1 = 50$	< .00001
2 - Employed	F = 168.90786[b]	$n^2 = 80$	

Note. -- [a]Constants for discriminant function 1 = -109.38924 and for discriminant function 2 = -113.90646.

[b]F statistic significant at P < .00001 level of confidence

TABLE 6

Chi-Square Summary of Linear Discriminant
Function Classification

Group Predicted	$_1$Group Entered$_2$		Chi-Square
1[b]	47	6	121[a]
2[c]	3	74	ndf = 1

Note. -- [a]P < .0001

[b]n = 50

[c]n = 80

TABLE 7a

Linear Discriminant Function Classification and Probability of Association with Group 1 -- Unemployed

Observation	Probability Associated With Largest Discriminant Function	Largest Function No.
1	.99862	1
2	.98838	1
3	.99257	1
4	.90840	1
5	.99966	1
6	.63163	2
7	.78360	1
8	.99433	1
9	.97648	1
10	.82189	1
11	.65008	1
12	.79429	1
13	.93394	2
14	.86601	1
15	.99744	1
16	.99284	1
17	.85000	1
18	.93693	1
19	.99865	1
20	.99982	1
21	.99352	1
22	.96946	1
23	.87637	1
24	.99878	1
25	.87695	1
26	.75491	1
27	.99598	1
28	.99936	1
29	.97759	1
30	.95221	1
31	.99878	1
32	.87764	1
33	.98056	1

TABLE 7a (Continued)

Linear Discriminant Function Classification and Probability of Association With Group 1 -- Unemployed

Observation	Probability Associated With Largest Discriminant Function	Largest Function No.
34	.97851	1
35	.99276	1
36	.85698	1
37	.79034	1
38	.99139	1
39	.99785	1
40	.94690	1
41	.96311	1
42	.99983	1
43	.99174	1
44	.93355	1
45	.80730	1
46	.98340	1
47	.97749	1
48	.98121	1
49	.95260	2
50	.98258	1

The Wilcoxen Matched-Pairs Signed Ranks Test (Siegel, 1956) was selected for analysis of Hypothesis One-b since it uses not only information about the direction of differences relevant to homogeneity (or heterogeneity of samples), but also information about the relative magnitude of the differences.

The mean standard deviations on each of the 31 variables used in the discriminant analysis were paired with each group. The signed differences between these responses for each variable

TABLE 7b (Continued)

Linear Discriminant Function Classification and Probability of Association With Group 2 -- Employed

Observation	Probability Associated With Largest Discriminant Function	Largest Function No.
34	.99997	2
35	.93899	2
36	.99939	2
37	.95971	2
38	.99841	2
39	.92660	2
40	.99513	2
41	.94848	2
42	.99888	2
43	.79185	2
44	.95044	2
45	.84793	2
46	.98786	2
47	.94555	2
48	.99672	2
49	.59107	2
50	.97729	2
51	.95481	2
52	.56755	1
53	.99875	2
54	.99992	2
55	.83375	2
56	.71306	2
57	.99942	2
58	.71028	1
59	.95018	2
60	.85483	2
61	.98995	2
62	.99890	2
63	.82572	2
64	.97040	2
65	.99333	2
66	.98981	2

TABLE 7b

Linear Discriminant Function Classification and Probability of Association with Group 2 -- Employed

Observation	Probability Associated With Largest Discriminant Function	Largest Function No.
1	.99811	2
2	.86458	2
3	.69403	1
4	.90163	2
5	.98465	2
6	.99745	2
7	.94836	2
8	.99989	2
9	.99810	2
10	.98251	2
11	.98678	2
12	.99998	2
13	.99940	2
14	.99943	2
15	.99321	2
16	.98619	2
17	.98326	2
18	.52353	1
19	.99925	2
20	.99791	2
21	.62694	1
22	.53235	2
23	.99995	2
24	.80804	2
25	.81643	1
26	.97523	2
27	.87355	2
28	.97809	2
29	.90255	2
30	.96000	2
31	.93409	2
32	.99492	2
33	.72482	2

TABLE 7b (Continued)

Linear Discriminant Function Classification and Probability of Association With Group 2 -- Employed

Observation	Probability Associated With Largest Discriminant Function	Largest Function No.
67	.99226	2
68	.99356	2
69	.78264	2
70	.72329	2
71	.58735	2
72	.83031	2
73	.56972	2
74	.79405	2
75	.76200	2
76	.94880	2
77	.96030	2
78	.93736	2
79	.50724	2
80	.91208	2

were determined and ranked. Then, the smaller sum of ranks with the least frequent sign were computed forming T. Since there was an n greater than 25, the T value was converted into a z score in order to determine more accurately a level of significance (Siegel, 1956, p. 79).

For the 31 matched variables there was a Wilcoxen T value of 193 which converted to a z score of 0.97 producing P<.1660. With alpha set at the <.05 level of significance, Hypothesis One-b was rejected in favor of maintaining that the unemployed are not

TABLE 8

Rank Order of Variance-Covariance Matrix, Common Means and Contribution of Variance to Linear Discriminant Function

Rank	Variable	Variance	Common Means	Variable Number[a]
1	Desired Distance to Job	761.77295	19.03845	27
2	Length of Vocat. Tr'ng.	140.32907	8.46923	30
3	Age	116.07230	33.83842	19
4	Self-Control	64.25043	27.36922	9
5	Distance to Job	49.23041	4.81538	26
6	Good Impression	42.34534	18.03075	11
7	Sense of Well-being	41.20255	32.28458	6
8	Intellectual Efficiency	38.90277	31.39998	15
9	Dominance	38.49017	23.79999	1
10	Social Presence	36.83661	30.33846	4
11	Socialization	36.15512	32.16150	8
12	Tolerance	31.03221	16.08461	10
13	Achievement via Conformity	30.78052	23.32306	13
14	Sociability	29.86304	21.33844	3
15	Responsibility	24.72630	25.25383	7
16	Achievement via Independ'ce	22.56847	13.65384	14
17	Capacity for Status	19.43387	15.27692	2
18	Number of Jobs	16.51598	5.45384	31
19	Flexibility	16.32304	6.81538	17
20	Communality	14.11880	24.22307	12
21	Self Acceptance	12.96642	18.63844	5
22	Psychological Mindedness	8.31281	9.77692	16
23	Femininity	8.19903	17.04614	18
24	Acreage of Land	8.20623	1.83846	28
25	Education	7.75935	11.53846	23
26	Number of Residents in Home	5.49200	4.68461	25
27	Number of Children	4.76921	2.34615	24
28	Spouse's Acreage	4.03359	0.90000	29
29	Birth Order	3.74455	3.17692	22
30	Number of Brothers	2.78032	2.24615	20
31	Number of Sisters	2.64752	2.33077	21

Note. -- [a]Variable numbers do not correspond directly with numbers in Appendix B.

significantly more homogeneous with respect to the employed sample. However, the direction of the data might indicate that the unemployed are more homogeneous than the employed.

Because of this direction it was decided to run another Wilcoxen Matched-Pairs Signed Ranks Test on more variables. Using the same computational procedures as before, 43 variables (see Tables 9 and 11) were used in this analysis. This analysis produced a Wilcoxen T of 368 which converted to a z score of -1.260 where $P<.1038$. Again, Hypothesis One-b was rejected at the alpha $<.05$ level of significance. However, the probability was higher for the 43 variables than for the 31 variables computed previously. Hence, while the unemployed are not significantly more homogeneous than the employed as a group, it could be stated that the unemployed tend to be moderately more homogeneous as a group as determined by their responses to the 31 and 43 variables respectively.

Typically, the discriminant analysis did not provide for a reduction in the number of dimensions that were being investigated. What was needed was a multivariate statistic that could explain observed relationships among numerous variables in terms of simpler relationships. Such a simplification procedure could take the form of producing a set of descriptive classificatory categories, or create a smaller set of hypothetical variables. Essentially, such a procedure is specific to principal component or factor analyses.

Harman said just that:

> The principal concern of factor analysis is the resolution of a set of variables linearly in terms of (usually) small numbers of categories or "factors". This resolution can be accomplished by the analysis of the correlations among the variables. A satisfactory solution will yield factors which convey all the essential information of the original set of variables. Thus, the chief aim is to attain scientific parsimony or economy of description (Harman, H. H., 1967, p. 4).

In addition to this Kelley so well expressed

> (that) there is no search for timeless, spaceless, populationless truth in factor analysis; rather, it represents a simple, straigtforward problem of description in several dimensions of a definite group functioning in definite manners, and he who assumes to read more remote verities into the factorial outcome is certainly doomed to disappointment (Kelley, T. L., 1940, p. 120).

In an effort to gain more descriptive elements from the mass of data obtained, such a procedure was necessary. There were 44 variables selected on the basis of scaling assumptions necessary for a factor analysis. A 44 x 44 correlational matrix was obtained (see IBM system/360 reference manual H20-205-1, Scientific Subroutine Package, 1967 under "Factor Analysis"). Such a matrix was obtained for both the unemployed and employed samples with 43 variables used in the latter and 44 variables in the former. A principal components solution was used to analyze the structure of the 43 x 43 and 44 x 44 correlational matrices.

The principal components analysis has the property that the latent roots (eigenvalues) are extracted in descending order of magnitude, accounting for a maximum amount of variance on the

variables. More specifically, the first principal component is the linear combination of the original variables which contributes a maxim to their total variance; the second principal component, uncorrelated with the first, contributes a maxim to the residual variance; and so on until the total variance is analyzed. The sum of the variances of all n principal components is equal to the sum of the variances of the original variables. It should be noted that when the principal components analysis is used, there need be no hypothesis made about the original variables. In fact, they need not be random variables, although in the analysis performed in this study they were.

Tables 9 and 11 are the principal components for the 43 and 44 variables respectively taken from one group and the other. As can be seen from these tables, the components are very similar to each other where the employed sample is reduced to 14 and the unemployed to 13. On the employed sample 19% of the variance is maximized on P_1, and 18% maximizes on P_1 of the unemployed sample. P_1 of both groups maximizes most of the CPI scales, with femininity loading highly on P_8 and lowly on P_4 of the employed; and while loading highly on P_8 and spread out over P_9, P_3, and P_2 of the unemployed. Self-control loads higher on P_2 of the unemployed than it does for the employed (on P_1). Hence, P_1 could be referred to as a general psychological component on both tables. P_2 of Table 11 is named "Value Orientation"(Nichols & Schnel,1963,p.230)

since the CPI scales measuring responsibility, self-control, good impression, achievement via conformity, and femininity load on this component. In addition the labor force variables, age, spouse employed, number of children, acreage of land, ownership of land, spouse's acreage of land, spouse owning land, collecting income on land, number of jobs, and difference of white friends all load highly on this component. This content and the CPI scale correlates indicate that they may all be a good description (and perhaps measure) of psychological maturity, social stability, and degree of conformity to conventional (albeit non-Indian) standards of behavior. P_6 also contains loadings of similar labor force variables, further enhancing the description under P_2. P_3 contains three of the five CPI scales loading on P_2, lending more support to such a description. This description also agrees with similar findings of Mitchell and Pierce-Jones (1960). In place of "Value Orientation," they preferred to name that factor "Social Poise," or alternatively, "Extroversion."

The remainder of the components are not as well defined as those of the previous components, since many of the loadings are either negative or too spurious to be interpreted. Thus, it seems that P_1 and P_2 of the unemployed sample could serve as more descriptive characteristics than the other variables used in the study.

TABLE 9

Principal Components for Forty-Four Psychosocial Variables of Employed Indian Sample[a]

Variable	Principal Components[a]														Standard Deviations
	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}	P_{13}	P_{14}	
Dominance	67			-44											6.34931
Capacity-Status	74	-33													4.41737
Sociability	69			-42											5.40742
Social Presence	58	-40	-32									-30			6.09709
Self-Acceptance	50	-32		-44		-30									3.64948
Sense Well-being	77														6.66708
Responsibility	79														4.85849
Socialization	63				38										5.97291
Self-Control	59	42		30			32								8.19536
Tolerance	87														5.34238
Good Impression	66			31											6.60924
Communality	40				34			42							3.50261
Ach'ment Conform.	87														5.66668
Ach'ment Indep.	69														4.23038
Intell. Effic.	90														6.29641
Psych. Mindedness	61										-31			31	2.84081
Flexibility		-36				36				44					3.52995
Femininity				31				53							2.87499
Age		61	-42								-30				10.85195
Live Same Area	31		-38									37			0.42824
Number Brothers				50							-44				1.61240

TABLE 9 (Continued)

Principal Components for Forty-Four Psychosocial Variables of Employed Indian Sample[a]

Variable	Principal Components[a]														Standard Deviations
	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}	P_{13}	P_{14}	
Number Sisters			57	-34										-43	1.64158
Birth Order			53	-34		31									1.95190
Married		-42		37						-50					0.74108
Spouse Employed		31	30							47					1.11768
Mean Education	43				30										2.96046
Adult Education		-30			38		41								0.35932
Military Record		32			32						39				2.14501
Indian Language				-46						-36					0.43574
Number Children		49				-45	-30								2.08668
Residents in Home		53	36			-44									2.17868
Distance to Job			33			35			44			-43			8.93114
Desired Dist. Job				-52											25.29559
Acreage Land		58				33			30						2.96152
Own Land		62		-35		33									0.65301
Spouse's Acreage		46						-31	36				-33	30	2.23885
Spouse Own Land		60						-40							0.50174
Own Home		-37	45			-33							-34		0.49746
Own Car							44	30			30	36	32		0.21932
Collect Income/Land		59		-45											0.75473
Length Voc. Tr'ng				-34		-37	43					-32			13.67923
Comp. Voc. Tr'ng					-31	30	62					-31			0.69798

TABLE 9 (Continued)

Principal Components for Forty-Four Psychosocial Variables of Employed Indian Sample[a]

Variable	Principal Components[a]														Standard Deviations
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	
Number Jobs	-30								50		-32				3.31384
Closeness White Friends		51							-34						0.74789
Eigenvalues	8.64	2.67	2.36	1.82	1.55	1.24	1.16								
		4.79	2.58	2.01	1.59	1.50	1.20	1.08							
Cumulative Percentage of Variance	19%	37%	48%	57%	64%	70%	75%								
		30%	42%	52%	60%	67%	73%	79%							

Note. -- [a]Only loadings greater than .300 are included and the decimal points have been dropped (Fruchter, 1954).

TABLE 11

Principal Components for Forty-Four Psychosocial Variables of Unemployed Indians

Variable[b]	Principal Components[a]													Standard Deviations
	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}	P_{13}	
Dominance	62	-32												5.96246
Capacity-Status	88													4.39386
Sociability	66			46										5.55583
Social Presence	60	-44	-44											6.02429
Self-Acceptance	62					-30								3.52112
Sense-Well Being	77					30								5.99730
Responsibility	72	30					31							5.15113
Socialization	44	45	31											6.07692
Self-Control	42	59	48											7.71716
Tolerance	85													5.92017
Good Impression	54	54	42											6.33966
Communality				76		37								4.13550
Achievement-Conform.	74	45												5.35117
Achievement-Indep.	73		-43											5.48648
Intellectual Effic.	81													6.14065
Psychol. Mindedness	60		-42				-33							2.95026
Flexibility	31		-67											4.74873
Femininity		31	33				47	38						2.84461
Age		73												10.64637
Lived in Same Area														0.0
Number Brothers			-31							-31	-40	-36		1.75255

TABLE 11 (Continued)

Principal Components for Forty-Four Psychosocial Variables of Unemployed Indians

Variable[b]	Principal Components[a]													Standard Deviations
	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9	P_{10}	P_{11}	P_{12}	P_{13}	
Number Sisters		-54							35	-38				1.60357
Birth Order		-34	-46					36			-44			1.90766
Married		39		-52										0.92604
Spouse Employed		61										30		1.48131
Mean Education				-52									48	2.47773
Adult Education	35			43		38								0.23990
Military Record	30					-40				-53				2.07226
Indian Language		-47		30	30	42								0.46467
Number Children		58	-39											2.33203
Residents in Home					-30			61						2.58724
Desired Dist. to Job				-37						53	32			30.95728
Acreage Land		45		-36		32				-38				2.70117
Own Land		53	-46			41								0.54361
Spouse's Land		54				45			-39					1.56700
Spouse Own Land		51				42			-36	33	30			0.47638
Own Home		-50		-54									-34	0.38809
Own Car			65	-36										0.49031
Collect Income-Land		48				30				31				0.82338
Length Voc. Tr'ng.			-34			32	32		34			37		8.05513
Complete Voc. Tr'ng.				34		30		-30	44				-30	0.80331
Number of Jobs		41		-36			-34		33					5.04367

TABLE 11 (Continued)

Principal Components for Forty-Four Psychosocial Variables of Unemployed Indians

Variable[b]	Principal Components[a]													Standard Deviations
	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9	P 10	P 11	P 12	P 13	
Closeness-White-Frds.		30			-41		-30	-39						0.82906
Eigenvalues	8.09	3.04	2.40	1.81	1.63	1.33	1.00							
		5.26	2.74	2.10	1.71	1.49	1.17							
Cumulative Percentage Variance	18%	37%	49%	58%	66%	72%	77%							
		30%	44%	54%	62%	69%	75%							

Note. -- [a]Only loadings greater than .300 are included and the decimal points have been dropped (Fruchter, 1954).

[b]Variable concerning distance to job was omitted.

The components and subsequent loadings of the variables on the employed sample appear to corroborate those found on the unemployed sample. P_1 has additional high loadings on education and number of jobs, plus the CPI scale, communality. That component could also be referred to as a general psychological component. P_2 loads self-control, age, number of children, number of residents in home, employment of spouse, acreage of land, ownership of land, acreage of land of spouse, ownership of land by spouse, and number of jobs. Such variables pertain to the degree and adequacy of self-regulation and self-control, as well as social responsibility to oneself and one's kin. These, too, could be grouped under "Value Orientation," much the same as P_2 of the unemployed sample.

P_3 has loadings pertaining to number of brothers, number of sisters, birth order, employment of spouse, distance to job, ownership of land, communality, military, and residents in home. Communality indicates the degree to which one may be reliable, realistic, conscientious and steady. This, plus the other variables, serves to describe one's familial orientation; hence, that component is referred to as such. P_5 falls somewhat into this classificatory schema, but it only accounts for 5% of the variance, while P_3 accounts for a little over 7% of the same. Therefore, it was eliminated from the overall description pattern.

Again, the other components have loadings of .300 or better, but due to some of the negative values and the spurious nature of the components further interpretation and component analysis were terminated.

It appears, then, that certain variables loaded differently for each sample. The employed sample contained an additional descriptive component, while the unemployed sample contained only two such components. In each group, however, the loadings were distributed between psychological and sociological variables, supporting the notion that both sets could be collapsed and fused into an overall analysis of both groups. In addition, it seems that with the addition of either certain sociological or psychological variables to one set or another, the two sets of variables could be used separately for descriptive and perhaps analytic purposes.

An inspection of Tables 9 and 11 indicates that several of the variables load highly on several of the components, even though the analysis maximizes the variance on the first component. Because of this, it was decided to subject the data to an orthogonal simple structure analysis, which would prevent a variable from being simultaneously highly loaded on two components or factors. The best known procedure for this technique is the Varimax Rotation (Harman, 1967, pp. 304-313), which aims to maximize the fourth power of the loadings, which amounts essentially to maxim-

izing the scatter among loadings.

In short, Harman maintained that the varimax permits the drawing of inferences about the factors in an (indefinite) domain of psychological content from a varimax solution based on a sample of n tests. Moreover, the varimax analytic model is more realistic, and the principal components method, in spite of its mathematical simplicity, is misleading (see IBM system/360 reference, 1967).

Tables 10 and 12 represent the results obtained from a varimax orthogonal rotation where 37 variables are used in the unemployed analysis and 44 in the employed. It was necessary to reduce the unemployed correlational from a 43 x 43 matrix to a 37 x 37 matrix due to the lack of variance computations on five variables. A geometric orthogonal rotation cannot take place when a zero variance or standard deviation is present.

Table 10 (employed group) indicates that the CPI scales, sense of well-being, responsibility, socialization, self-control, tolerance, good impression, achievement via conformity, achievement via independence, intellectual efficiency, and psychological mindedness all load highly on Factor I and, in most instances, approximate the communality of each variable. In such a rotation, each variable contributes to the function as the square of its communality; hence, a variable with communality twice that of another will influence the rotations by four times as much. This

TABLE 10

Varimax Factor Pattern for Forty-Four Variables of Employed Indian Sample[a]

Variable	Factors														
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	Communalities
Dominance	35				-73										.826
Capacity Status	41				-75										.855
Sociability	36				-75										.819
Social Presence					-71										.853
Self-Acceptance					-85										.784
Sense Well-being	78			-37											.837
Responsibility	69				-38										.715
Socialization	70			-38	-38										.783
Self-Control	90														.917
Tolerance	79														.873
Good Impression	85														.855
Communality				-73											.784
Ach'ment-Con.	79				-35										.864
Ach'ment-Ind.	66														.726
Intell. Effic.	71				-51										.861
Psych. Minded.	53				-35					-34				46	.799
Flexibility				65		49									.784
Femininity											-72				.669
Age		38						-35			-39		30		.762
Lived-Same Area												78			.780
Number Brothers			74												.690

TABLE 10 (Continued)

Varimax Factor Pattern for Forty-Four Variables of Employed Indian Sample[a]

Variable	Factors I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	Communalities
Number Sisters			83												.829
Birth Order			75												.693
Married										-74					.751
Spouse Employed										86					.809
Mean Education			-30						40						.513
Adult Education									42					33	.655
Military Record											36	-34			.605
Indian Language									73						.659
Number Children						-87									.837
Residents-Home						-84									.841
Dist. to Job												-84			.810
Desired Dis.-Job									45			-50			.667
Acreage Land		85													.823
Own Land		85													.857
Spouse's Acreage								-86							.830
Spouse Own Land								-81							.863
Own Home		-62											-32	39	.849
Own Car													-83		.817
Collect Inc.-Land		67													.729

TABLE 10 (Continued)

Varimax Factor Pattern for Forty-Four Variables of Employed Indian Sample[a]

Variable	Factors I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	Communalities
Length Voc. Tr'ng							81								.750
Comp.. Voc. Tr'ng							90								.879
Number-Jobs				37		-34					-56				.706
Closeness of White Friends					32				-36					30	.612
Percentage of Total Variance	20%	11%	6%	6%	5%	5%	4%	4%	3%	3%	3%	3%	3%	2%	

Note. -- [a]Only loadings greater than |.300 are included and the decimal points have been dropped. Fruchter (1954) maintains that loadings of .2 or less are regarded insignificant, loadings of .2 to .3 as low, .3 to .5 as moderate, .5 to .7 as high, and above .7 as very high.

means that the variable self-control, with communality .917, has two times that of the variable, military record, which has communality .605. All other factors are interpreted on this basis.

In reference to the loadings on Factor V, the variables, dominance, capacity for status, sociability, social presence, self-acceptance, and intellectual efficiency load negatively high, indicating that they are negatively related to those loadings on Factor I. This suggests that these loadings are measuring something quite different from those of the first factor. To be certain, all of the variables from the two factors are CPI scales, but the elements which they purport to measure are apparently different.

Mitchell and Pierce-Jones (1960) found similar high loadings on their first factor that paralleled the ones found above. However, Table 10 indicates that the variables, achievement via independence, intellectual efficiency, and psychological mindedness also add to the loadings increasing the descriptive power. Factor I was thusly named, "Adjustment by Social Conformity Through Independent Thought and Action" (a fusion of Mitchell and Pierce-Jones Factors I and IV).

Factor V of the employed sample, also appears to corroborate with the Mitchell and Pierce-Jones findings. Their Factor II had high loadings with the CPI scales, dominance, capacity for status, sociability, social presence, and self-acceptance. Factor V, in

addition, has loadings with the scales, intellectual efficiency, achievement via conformity, responsibility, socialization, and psychological mindedness. Because of the similarity of the scales, Factor V is named, "Social Poise Through Self-Regulative Strengths."

The Labor Force Survey items appear to maximize on variables other than those containing CPI scales. Factor III loads with variables pertaining to sibling relationships, and is aptly named, "Sibling Patterns." Of note is the low negative loading of education which implies that it is not necessarily related to birth order and sibling rivalries. Factor IX has high loadings pertaining to education, knowledge of one's tribal language, and desired distance to a job. Because this factor only contributes 4% to the total variance, naming it would prove extraneous. Other clusterings are similarly ignored because of their low contributions of the variance.

Table 12 (unemployed group) indicates the CPI scales, sense of well-being through good impression inclusively, and achievement via conformity to psychological mindedness inclusively load highly on Factor I. The finding here parallels those found with the rotations of the employed matrix, and hence is given the same name. Other factors have variable loadings of different scales and variables.

Factor III loads highly with the CPI scales, dominance, sociability, social presence, self-acceptance, intellectual ef-

TABLE 12

Varimax Factor Pattern for Thirty-seven Variables of Unemployed Indian Sample[a]

Variable[b]	Factors											Communalities
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	
Dominance	32	30	64									.818
Capacity-Status	56	67										.834
Sociability			81									.856
Social Presence		-37	78									.893
Self-Acceptance			83									.777
Sense-Well-being	72											.788
Responsibility	77											.835
Socialization	69											.674
Self-Control	87											.911
Tolerance	79		36									.880
Good Impression	82											.858
Communality				86								.843
Ach'ment-Conform.	87											.865
Ach'ment-Indep.	57			-44								.832
Intell. Efficiency	52		63									.874
Psych. Mindedness	54			-39			40			-30		.810
Flexibility				-83								.818
Femininity		47	-38		37					30		.777
Age		65				37						.809
Number Brothers											-78	.803
Number Sisters				-35	-34						-41	.625
Birth Order											-81	.830
Married					78							.722
Education					39		-56					.624

TABLE 12 (Continued)

Varimax Factor Pattern for Thirty-seven Variables of Unemployed Indian Sample[a]

Variable[b]	Factors I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Communalities
Military			36						-77			.757
Indian Language		-58								49		.753
Number Children		55			-37							.677
Residents in Home							-80					.733
Desired Dist. to Job		30	32						56			.689
Acreage of Land						86						.841
Own Land		31				73						.799
Spouse's Acreage						62						.606
Own Car					80							.772
Length Voc. Tr'ng.								-83				.794
Complete Voc. Tr'ng.							33	-73				.768
Number Jobs		78										.691
Closeness-Wht. Fr'nds										-84		.779
Percentage of Total Variance	28%	12%	8%	8%	6%	6%	5%	5%	5%	4%	3%	

Note. -- [a]Only loadings greater than .300 are included and the decimal points have been dropped (Fruchter, 1954).
[b]Five of the variables were omitted that were used in the principal components analysis (see Table 11) either because there were no standard deviations or there were no responses to the variable. An orthogonal varimax rotation cannot be rotated on a zero score.

ficiency, and the Labor Force Survey variables, desired distance to a job, and military preference. In part, this agrees with the Factor V of Table 10, but the addition of the labor force variables appears to enhance its description. However, the same name used for Factor V of the employed rotation can be used without risking too much redundancy.

Factor VI of the unemployed group has high loadings on variables pertaining to land possession, and hence is named such.

The remaining factors have too few or spurious loadings and consequently the naming was terminated.

Of specific interest on both rotations are the high loadings of self-control and communality, which have no apparent correlation with each other (-.10 and .15). Yet, they seem to stand out as possible indices for measuring what the overall factor represents. In fact, communality loads highest by itself on both rotations, indicating its individuality and contribution to the overall factor analysis.

Therefore, it appears that the varimax rotation does isolate the variables more appropriately than both principal components. But because there is no way to mathematically compare separate factor analyses, it was decided to retain the Mitchell and Pierce-Jones factors for inferential analysis. The principal components and the varimax rotation do support the contention that the psychological and sociological variables can be broken down separately

and analyzed independently of each other.

Group Comparison of Employed and Unemployed Samples on Personality Inventory Scores

The next statistical procedure was to determine the differences of both groups and the respective response profiles on the CPI. Responses to the CPI, when tabulated, yielded raw scores on each one of the 18 scales, which varied in size due to the varying number of items appropriate to each scale. Because of this, the various raw scores were converted to T scale standard scores, where the mean = 50, and the standard deviation = 10 (see Appendix D, under Standard Scores for actual transformations).

The most appropriate statistic for this analysis is to compare the differences between each of the 18 means of both groups, obtained by deriving the mathematical mean from each of the individual responses. The most feasible statistic for such an analysis is the T test, which permits one to make inferences about the populations from which the samples are drawn. To this point, Hays maintained:

> In order to justify the use of the T distribution in problems involving a difference between means, one must make two assumptions: the populations sampled are normal, and the population variances are homogeneous, the variance having the same value for each population. In practical situations these assumptions are sometimes violated with rather small effect on the conclusions (Hays,W.L., 1963, p. 234).

For this analysis the following equations were used since $n_1 \neq n_2$ (see Courts, F. A., 1966, p. 224) where

$$\underline{T} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}} \quad , \text{ where } S^2 = \frac{\Sigma(X_1 - \bar{X}_1)^2 + \Sigma(X_2 - \bar{X}_2)^2}{N_1 + N_2 - 2}$$

(see Lohnes, P. R., & Cooley, W. W., 1968, p. 185 for $\underline{T}$ program).

Table 13 shows the mean responses for each group on each CPI scale, followed by the $\underline{T}$, and the probability of significance for each matched set (alpha <.05). Eight of the scales indicate a significant difference between each group, while the remaining ten scales are nonsignificant. Figure 1 shows a profile of the response patterns of both groups on each one of the 18 scales.

Such results lend creditable support to Hypothesis Two, which states that "there are certain basic differences of the self-concept between unemployed and employed male American Indians." However, not all of the items are significant. An examination of both Table 13 and Figure 1 indicates that a cluster of significant scales centers around the scales, sense of well-being to intellectual efficiency, indicating that such a clustering effect might refer to one of the factors obtained on the varimax rotation.

For this analysis, it was first decided to test the collapsed and combined mean responses representing each one of Gough's four classes. Table 14 shows the mean responses of both groups, $\underline{T}$, and the level of significance for each class. Classes I and IV are nonsignificant while Classes II and III, measuring socializa-

TABLE 13

Mean Responses by Groups, T test, and Level of Significance for a One-Tailed Test for Each of the Eighteen CPI Scales

Scale	Mean Response Unemployed[c]	Employed[d]	T[a]	p[b]
Dominance	42.4	44.6	.991	NS[e]
Capacity for Status	38.0	40.0	.970	NS
Sociability	43.2	43.8	.298	NS
Social Presence	43.2	42.6	.329	NS
Self-Acceptance	47.7	48.8	.577	NS
Sense of Well-being	32.5	39.8	2.617	<.01
Responsibility	35.1	40.7	3.140	<.01
Socialization	37.0	45.0	4.206	<.001
Self-Control	42.3	46.8	2.238	<.05
Tolerance	32.9	37.4	2.170	<.05
Good Impression	46.4	47.2	.418	NS
Communality	41.0	49.4	2.992	<.01
Achievement by Conformance	37.3	42.9	2.566	<.01
Achievement by Independence	26.6	39.3	1.305	NS
Intellectual Efficiency	30.2	34.8	1.911	<.05
Psychological Mindedness	45.3	46.0	.345	NS
Flexibility	43.9	43.6	.189	NS
Femininity	52.3	52.5	.117	NS

Note. -- [a]T ratio for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1963)

[c]$n = 50$

[d]$n = 84$

[e]NS = non-significant T ratio

FIGURE 1
MEAN STANDARD SCORE
PROFILE OF EMPLOYED AND UNEMPLOYED
MALE INDIANS



tion, maturity, and responsibility, and achievement potential and intellectual efficiency respectively are significant. Figure 2 shows a graphic representation of such patterns. However, it was indicated earlier (and verified) that the Mitchell and Pierce-Jones factors seemed empirically more related than Gough's classes. Thus, further breakdown according to Gough's classes was ceased.

Because of the similarities between the findings of the varimax rotation in this study and the Mitchell and Pierce-Jones factors, a T test was computed on those four factors. Table 15 shows the mean responses of both groups, T, and the appropriate level of significance. Such results support Hypotheses Two-a, -b, -c, and -d, that there are no differences in the measures of social poise between both groups (Factor II, "Social Poise"); that employed Indians conform more to social responsibilities than unemployed Indians (Factor I, "Adjustment by Social Responsibility"); that employed Indians are more alert to moral responsibilities than are unemployed Indians (Factor III, "Super-ego Strength"); and that employed Indians have a greater capacity for independent thought and action than unemployed Indians (Factor IV, "Capacity for Independent Thought and Action"). In addition, the findings support the results found in the varimax rotation of the principal components cited earlier. Factor I, "Adjustment by Social Conformity Through Independent Thought and Action" is also significant, since it represents a combination of Factors I and VI

TABLE 14

Mean Responses by Groups, T test, and Level of Significance for a One-Tailed Test for Each of Gough's Four Classes

Class	Mean Response		T[a]	P[b]
	Unemployed[c]	Employed[d]		
I	41.1	43.3	1.305	NS[e]
II	39.1	44.4	3.622	<.001
III	34.6	38.9	2.315	<.02
IV	47.1	47.2	.040	NS

Note. -- [a]T ratio for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1965)

[c]n = 50

[d]n = 84

[e]Non-significant

mentioned above. However, Factor V, "Social Poise Through Self-Regulative Strengths," would not prove significant due to the small differences between the scales appropriate to that factor.

These findings support the notion that the variables used to assess the psychological characteristics are in fact very useful in deliniating between the two employment statuses.

TABLE 15

Mean Responses by Groups, T test, and Level of Significance for a One-Tailed Test for Each of the Mitchell-Pierce-Jones Factors

Factor	Mean Response Unemployed[c]	Employed[d]	T[a]	P[b]
I	37.733	42.226	2.505	<.01
II	42.916	43.840	.560	NS
III	41.185	64.893	4.489	<.001
IV	36.903	39.452	1.606	<.05

Note. -- [a]T ratio for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1963)

[c]n = 50

[d]n = 84

[e]Non-significant

Additional T tests were computed on two of the tribes represented in the study. Specifically, the Kiowas and Comanches had samples large enough in both groups to be treated separately by groups, and between each other. Such a test was computed in an effort to test Hypothesis Two-e, that there are no inter-tribal differences in the self-concepts of the employed and unemployed Indians in western Oklahoma.

FIGURE 2
MEAN STANDARD SCORE RESPONSES ON GOUGH'S CLASSES FOR BOTH GROUPS

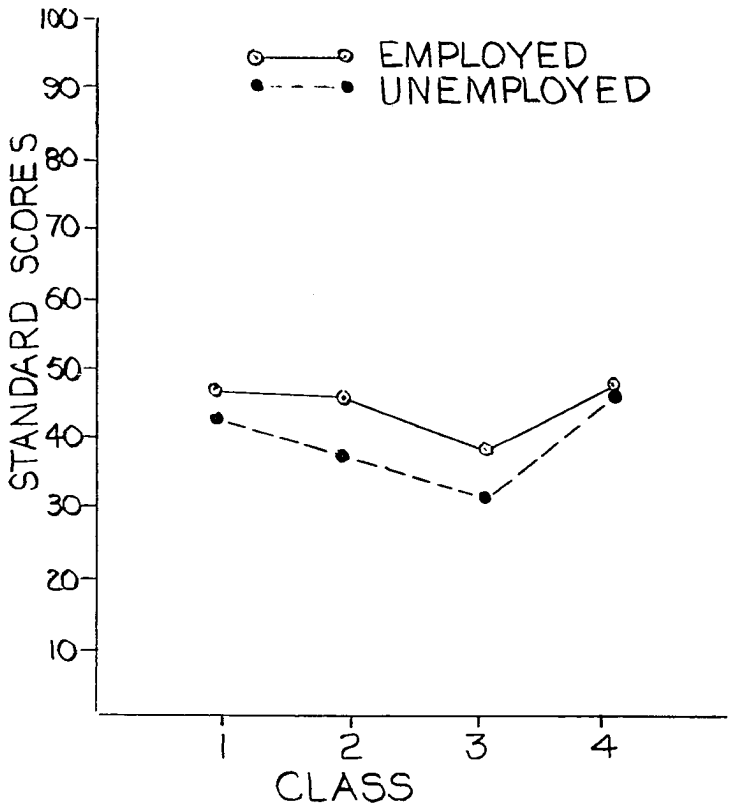


FIGURE 3
MEAN STANDARD SCORE RESPONSES ON MITCHELL-PIERCE-JONES FACTORS FOR BOTH GROUPS

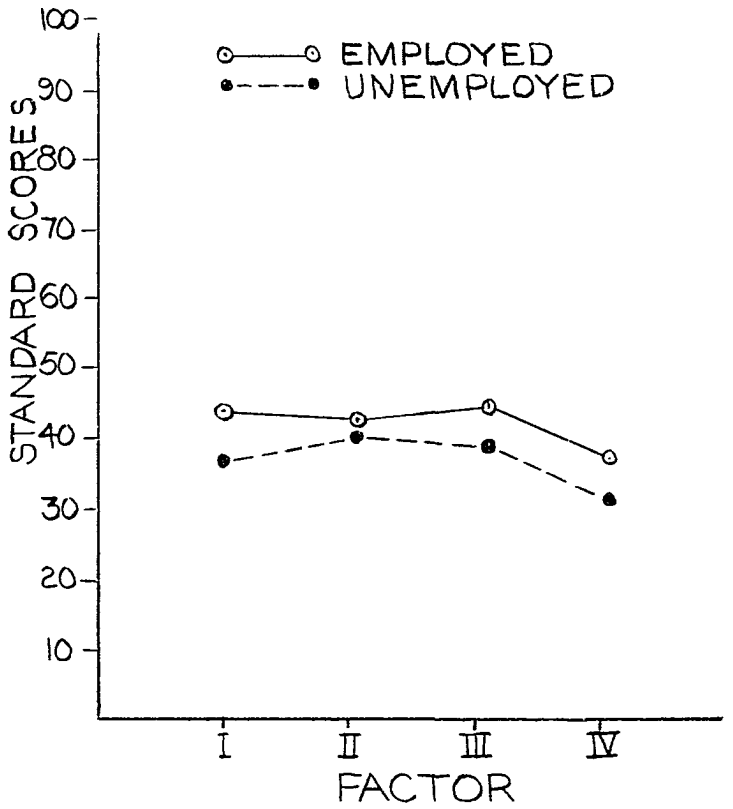


Table 16 represents the group means, T, and level of significance for each of the matched 18 scales. Figure 4 represents a graph of the mean standard score profiles for each scale response of the Kiowa tribe. Eight of the 18 scales indicate a significant difference (alpha<.05). However, there are differences between them and the overall group comparisons. Capacity for status is significant at the P<.02 level of significance, while self-control is not significant for the Kiowas. Such a difference may be due to specific intratribal customs which may vary between tribes. But because the n's are larger only for this tribe no other between scale analysis is justified.

Table 17 and Figure 5 represent computations and the graph of such for the four factors found by Mitchell and Pierce-Jones. These findings correspond directly with the overall findings (see Table 15) and again lend support to the factors located in this study.

A similar analysis was computed on the Comanche tribe. There, however, the n's were smaller than desirable for a full-scale analysis. Table 18 and Figure 6 represent the results for a computation on the Mitchell and Pierce-Jones factors. Only Factor III indicates any significant difference, while the other three factors are nonsignificant. Such findings do not correspond with previous results, but that may be due to the small sample sizes.

TABLE 16

Mean Responses by Groups for the Kiowa Tribe, T test, and Level of Significance for a One-Tailed Test for Each of the Eighteen Scales

Scale	Mean Response Kiowa		T[a]	P[b]
	Unemployed[c]	Employed[d]		
Dominance	42.6	44.9	.519	NS[e]
Capacity for Status	34.1	41.2	1.721	<.05
Sociability	43.2	44.4	.290	NS
Social Presence	41.6	44.6	.682	NS
Self-Acceptance	46.9	49.4	.662	NS
Sense of Well-being	29.9	42.0	2.224	<.02
Responsibility	32.7	40.8	2.355	<.02
Socialization	36.8	44.8	2.286	<.02
Self-Control	41.2	44.8	.857	NS
Tolerance	28.5	36.8	1.767	<.05
Good Impression	43.8	45.2	.317	NS
Communality	41.1	50.5	2.137	<.02
Ach'ment by Conform.	33.8	44.4	2.603	<.01
Ach'ment by Independ.	31.5	38.1	1.609	<.06
Intellectual Efficien.	25.3	36.5	2.236	<.02
Psycholog. Mindedness	41.6	43.6	.511	NS
Flexibility	41.4	42.4	.234	NS
Femininity	52.2	51.0	.289	NS

Note. -- [a]T test for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1963)

[c]n = 16

[d]n = 25

[e]Non-significant

FIGURE 4
MEAN STANDARD SCORE PROFILE
SCORES BY GROUPS FOR THE KIOWA TRIBE

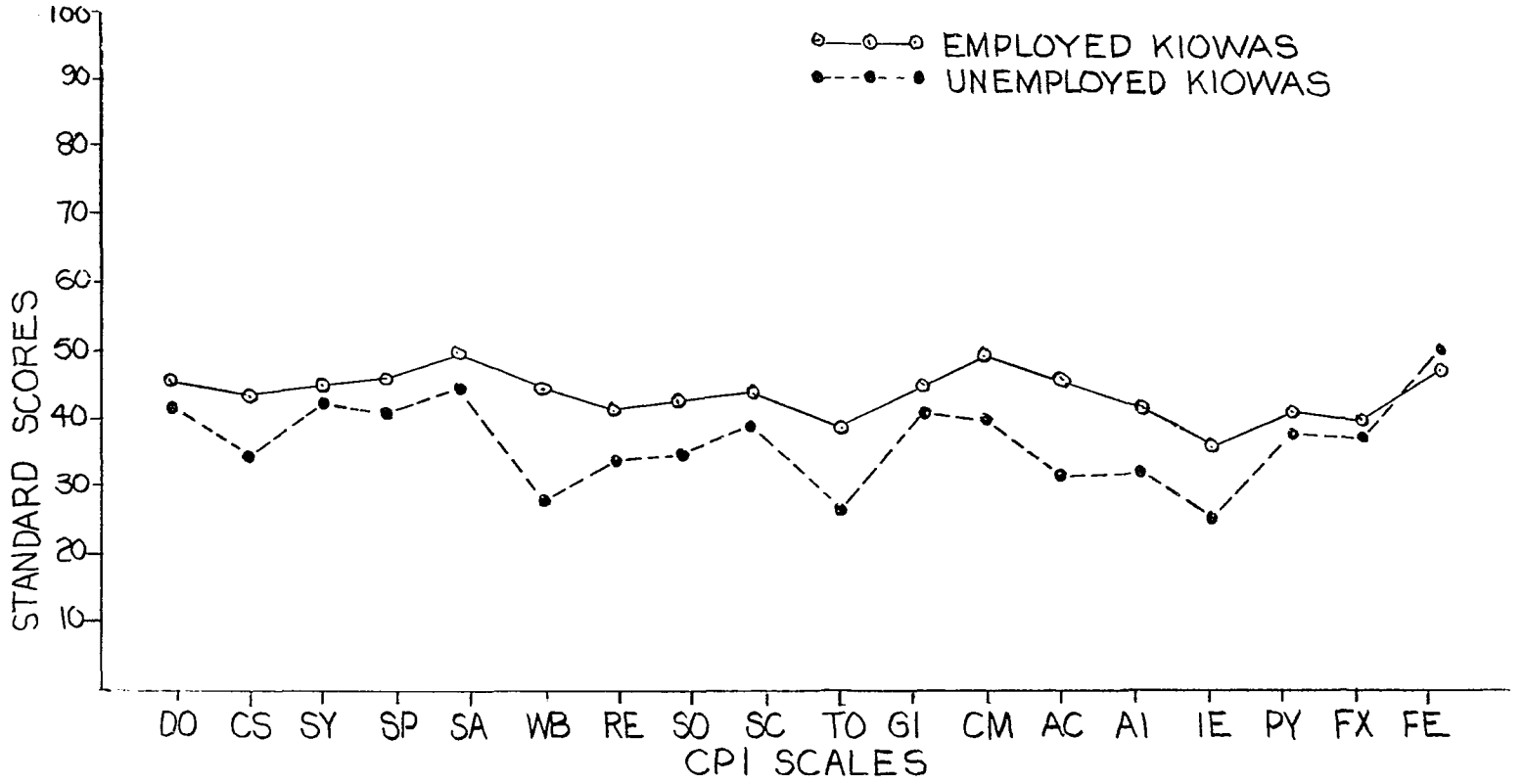


TABLE 17

Mean Responses by Groups of the Kiowa Tribe, T test, and Level of Significance for a One-Tailed Test Each of the Mitchell-Pierce-Jones Factors

Factor	Mean Response Kiowa		T^a	P^b
	Unemployed[c]	Employed[d]		
I	52.52	62.50	2.026	<.05
II	52.16	56.16	1.055	NS[e]
III	40.22	46.80	3.217	<.01
IV	50.22	59.99	2.323	<.02

Note. -- [a]T test for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1963)

[c]n = 16

[d]n = 25

[e]Non-significant

It is interesting to point out that Factor III is significant throughout the analyses. Such a point indicates the possible weight this factor may have in differentiating between the two groups and the usage it may have in predicting unemployment or employment.

TABLE 18

Mean Responses by Groups of the Comanche Tribe, T test, and Level of Significance for a One-Tailed Test for Each of the Mitchell-Pierce-Jones Factors

Factor	Mean Response Comanche		T[a]	P[b]
	Unemployed[c]	Employed[d]		
I	58.80	61.87	.430	NS[e]
II	51.03	55.42	.857	NS
III	40.40	48.30	2.350	<.05
IV	55.45	59.72	.718	NS

Note. -- [a]T ratio for unequal n's where $n_1 \neq n_2$ (Courts, 1966)

[b]Probability of making Type I error (Hays, 1963)

[c]n = 8

[d]n = 11

[e]Non-significant

Other T tests were computed between the Kiowas and Comanches. Both unemployed samples were tested, as well as the employed samples, and no significant differences were found on either treatment. In addition, the overall samples from both tribes were treated against each other and no significant differences were found. Hence, these results tend to support Hypothesis Two-e,

FIGURE 5
MEAN STANDARD SCORE RESPONSES
BY GROUPS FOR THE KIOWA TRIBE
ON MITCHELL-PIERCE-JONES FACTORS

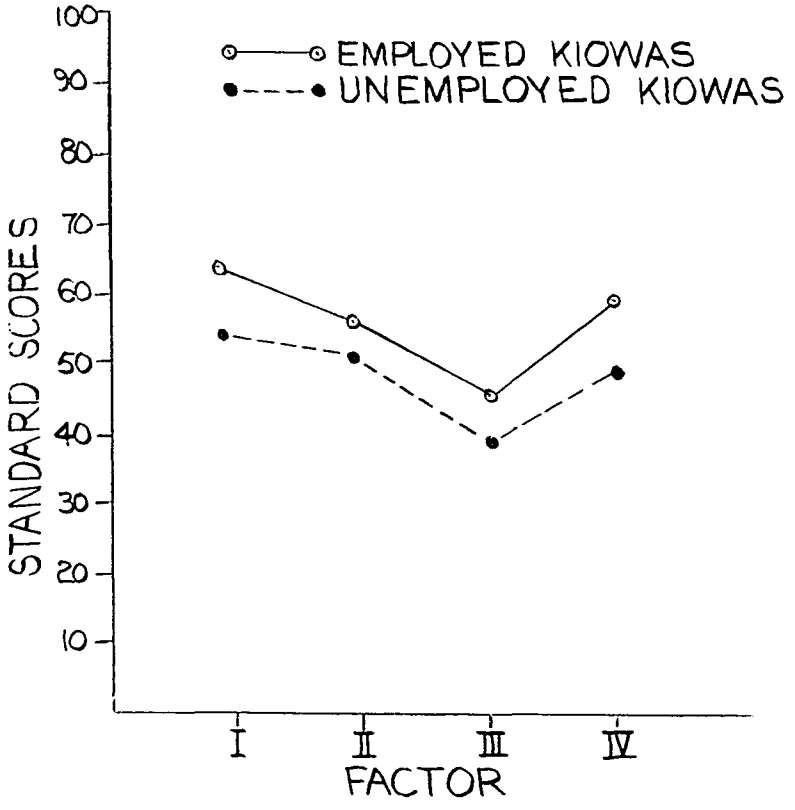
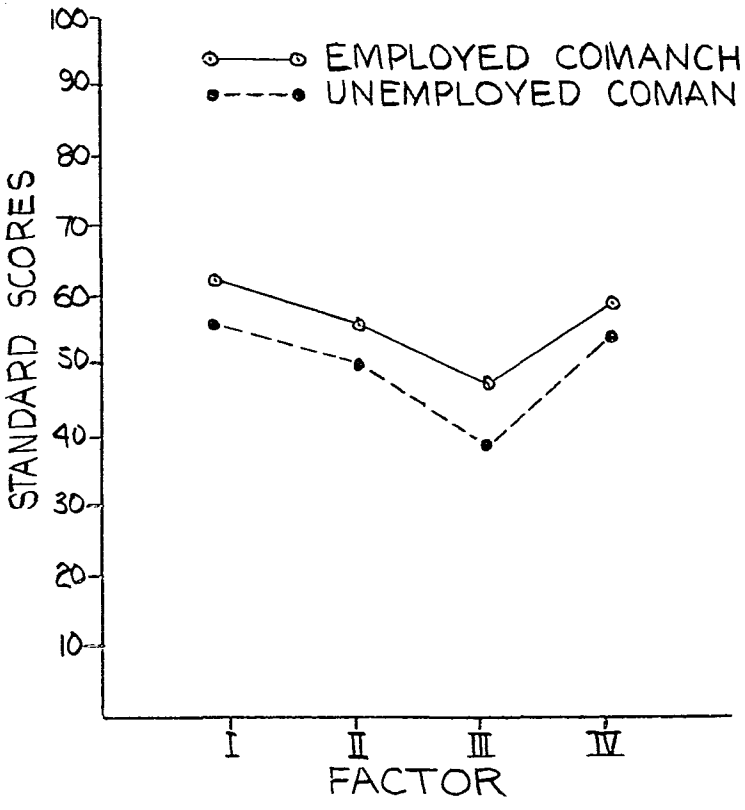


FIGURE 6
MEAN STANDARD SCORE RESPONSES
BY GROUPS FOR THE COMANCHE TRIBE
ON MITCHELL-PIERCE-JONES FACTORS



that there are no intertribal differences due to response patterns on the CPI. Of note, is the fact that there may be differences between the southern plains tribes and the tribes comprising the Five Civilized Nations and other tribes from eastern Oklahoma. Moreover, there may be differences between the non-reservation Indian of Oklahoma and reservation Indians from other regions of the country.

Of descriptive note, is Table 19 which lists the differences between the mean score for both groups on certain demographic variables. The various differences have been or will be referred to periodically throughout the results and discussion chapters of this manuscript. An analysis of their contributory value was performed by the linear discriminant function. However, these differences are offered for descriptive and informational value only.

Related Data

The principal components and varimax rotation also indicate loadings of certain Labor Force Survey variables on a number of factors. Since the personality variables are subjected to independent analysis, certain demographic variables merit the same subsequent procedures. However, these variables do not meet the criteria for use of a parametric test, due to their nominal qualities. Because of this element, a nonparametric statistic, which analyzes frequency responses and permits one or the other to be treated against both groups, is needed. The test most appropriate

for such is the Pearson Chi-Square, "Goodness-of-Fit" test. Hays stated that the

> Chi-square tests of goodness of fit may be carried out for any hypothetical population distribution we might specify, provided that the population distribution is discreet, or is thought of as grouped into some relatively small set of class intervals. However, in the use of the Pearson X^2 statistic to approximate multinominal probabilities it must be true that:
>
> 1. each and every sample observation falls into one and only one category or class interval;
> 2. the outcomes for the N observations in the sample are independent;
> 3. sample N is large (Hays, W. L., 1963, p. 583).

In the case of the data obtained, all of the assumptions quoted held true.

Many of those variables appear to reflect factors more related to the non-Indian (albeit dominant) culture implying that the Indian has assimilated them into his style of life. Because of that element, it is thought that the employed Indian, in conforming to the dominant culture, is in fact more acculturated than the unemployed Indian. Added to that is the fact that the degree of acculturation may be a contributive factor to the characteristics of the employed Indian. Moreover, because the linear discriminant analysis used certain demographic variables in its breakdown of the samples, that fact may add support to the hypothesis. Hence, Hypothesis Three, that the degree of social acculturation is greater for the employed Indian than for the unemployed Indian, may be supported by looking at the different

TABLE 19

Mean Responses by Groups on Certain Labor Force Survey Variables

Variable	Groups Employed[a]	Unemployed[b]	Difference Between Means
Age	36.26250	29.95999	6.30251
Number of Brothers	2.21250	2.30000	-.08750
Number of Sisters	2.16250	2.60000	-.43750
Birth Order	3.01250	3.44000	-.42750
Education	11.91250	10.94000	.97250
Number of Children	2.88750	1.48000	1.40750
No. Residents in Home	4.61250	4.80000	-.18750
Distance to Job	7.82500	0.0	---
Desired Distance to Job	15.82500	24.17999	8.35499
Acreage of Land	1.96250	1.64000	.32250
Spouse's Acreage	1.11250	0.56000	.55250
Length of Voc. Tr'ng.	10.12500	5.82000	4.30500
Number of Jobs	4.17500	7.50000	-3.32500

Note. -- [a]n = 80
[b]n = 50

TABLE 20

Chi-Square Summary of Observed Frequencies of Employment Status and Relocation Pattern

Group	Lived in Same Area Most of Life Yes	No	Chi-Square
(1) Unemployed n = 59	59	0	14.281 ndf = 1 P <.001
(2) Employed n = 80	61	19	

response patterns of both groups.

Indians who relocate from their original tribal homelands or reservations indeed reflect a certain degree of acculturation. That is, they are willing to leave the binding element of tribal relationships to seek gainful employment. Table 20 indicates that a significant chi-square ($P<.001$) exists between employment status and relocation patterns. In fact, none of the unemployed had left their areas of birth, while 19 of the employed had left. Moreover, three of the employed came from areas outside of the state.

Familial patterns tend to reflect a certain degree of adoption of non-Indian kinship patterns. The traditional clan system of yesteryear has progressed to an extended type of familial relationship in Oklahoma. The individual may live with his kin until he marries, and then may continue to do so. Or he may break away from his elders, but have certain relatives live with him. The only other alternative is to stake out on his own and live in a nuclear family situation with his ties behind him. This latter point is typical of the white culture, while atypical of the Indian, per se.

Tables 21, 22, 23 and 24 depict such familial patterns of employed and unemployed Indians. Table 21 shows the calculated chi-square of employment status and marital status. With $P<.001$, there is a significant difference between marital status and

TABLE 21

Chi-Square Summary of Observed Frequencies of Employment Status and Marital Status

Group	Marital Status				Chi-Square
	Married	Single	Divorced	Separated	
(1) Unemployed n = 59	22	32	4	1	46.41
(2) Employed n = 80	72	4	3	1	ndf = 3 P <.001

TABLE 22

Chi-Square Summary of Observed Frequencies of Employment Status, Marital Status and Resident Patterns

Group	Married		Single		Chi-Square
	Nuclear Family	Extended Family	Extended Family	Alone	
(1) Unemployed n = 59	15	5	30	9	44.11
(2) Employed n = 80	64	7	6	3	ndf = 3 P <.001

TABLE 23

Chi-Square Summary of Observed Frequencies of Employment Status and Employment of Spouse

Group	Employment of Spouse		Chi-Square
	Yes	No	
(1) Unemployed n = 28	2	26	8.222
(2) Employed n = 72	28	44	ndf = 1 P <.01

level of employment. In effect, the employed tend to be married, further stressing the element of responsibility. Moreover, according to the results in Table 22, the employed tend to live more in a nuclear familial relationship than the unemployed. Such results are significant at the $P<.001$ level of confidence. Table 23 indicates that of those Indians who are married, the employed male's spouse tends to be employed as well. These results are significant at the $P<.01$ level of confidence. Finally, Table 24 indicates that there is no relationship between employment status and marrying a spouse of the same tribal affiliation ($P<.90$), indicating a possible trend away from such a tradition pattern of the past and heading toward a more pan-Indian type of culture.

In brief, from the latter results, employed males tend to be more like the non-Indian culture in terms of marital patterns, resident types, and employment of spouse than the unemployed males. Such results tend to lend further support to Hypothesis Three.

Traditionally, education has been important to most Indian tribes. But the responsibility of educating the youth was not formally institutionalized *per se*, but was the responsibility of the child's parents or grandparents or, for that matter, any member of the extended family. With the advent of the white man, formalized education was introduced to the Indian. Assimilating this element into behavioral and attitudinal schema has beset the

Indian with a multitude of problems. Whether or not the Indian has fully adopted such an institution is a moot question, but of interest is the affect of education on the employment status of the Indian. Tables 25, 26, 27 and 29 show the results of tabulations in that area.

There is no difference in employment status and the type of secondary school, be it a public or an Indian boarding school, that an Indian has attended or from which he has graduated (Table 25). College attendance and the type of school from which the male has graduated apparently have no relationship with employment status (Table 26). Moreover, attendance to a college seemingly is not related to employment status (Table 27). Which, in effect, maintains that education may not be an absolute necessity for an Indian to be employed, and that attendance to an Indian boarding school is not necessarily a good indicator of employment success.

Bilingual Indians are thought to be handicapped in attempting to bridge the gap between their cultures and those of the non-Indians. Table 28 indicates that there is no relationship between employment status and speaking knowledge of the Indian's respective tribal language. In fact, contrary to the findings of Albaugh et al (1968), level of education is not related to the bilingual nature of Indians (r_b=.149, see Table 30) in rural, western Oklahoma.

TABLE 24

Chi-Square Summary of Observed Frequencies of Employment Status and Tribal Affiliation of Spouse

Group	Married Spouse of Same Tribe		Chi-Square
	Yes	No	
(1) Unemployed n = 27	11	16	.016
(2) Employed n = 76	28	48	ndf = 1 P <.90

TABLE 25

Chi-Square Summary of Observed Frequencies of Employment Status and Secondary School Affiliation

Group	Secondary School Affiliation		Chi-Square
	Public	Indian	
(1) Unemployed n = 58	43	15	.109
(2) Employed n = 81	63	18	ndf = 1 P <.70

TABLE 26

Chi-Square Summary of Observed Frequencies of College Attendance and Graduation from an Indian or Public Secondary School

Group	Secondary School Affiliation		Chi-Square
	Indian	Public	
(1) College n = 32	5	28	1.40
(2) No College n = 106	28	78	ndf = 1 P <.20

TABLE 27

Chi-Square Summary of Observed Frequencies of Employment Status and College Attendance

Group	College Attendance		Chi-Square
	Yes	No	
(1) Unemployed n = 59	10	49	1.58
(2) Employed n = 80	22	58	ndf = 1
			P <.20

TABLE 28

Chi-Square Summary of Observed Frequencies of Employment Status and Speaking Knowledge of Indian

Group	Speaking Knowledge of Indian		Chi-Square
	Yes	No	
(1) Unemployed n = 58	44	14	.0071
(2) Employed n = 80	60	20	ndf = 1
			P <.90

TABLE 29

Chi-Square Summary of Observed Frequencies of Employment Status and Adult Indian Education Involvement

Group	Adult Indian Education		Chi-Square
	Yes	No	
(1) Unemployed n = 59	3	56	2.514
(2) Employed n = 80	12	68	ndf = 1
			P <.10

TABLE 30

Biserial Correlation Between Education Level and Understanding of Indian Language

Education Level	Language Understanding Yes	No	r_b
1	1	1	
2	1	0	.149
3	1	0	
4	0	0	
5	0	0	
6	2	1	
7	2	0	
8	8	0	
9	9	0	
10	10	5	
11	11	1	
12	43	14	
13	4	2	
14	4	2	
15	2	1	
16	3	5	
17	0	1	
18	2	1	
19	1	0	
	$n_1 = 104$	$n_2 = 34$	

Albaugh, Phillips and Rogers (1968), in sampling the urban Indian of Tulsa and Oklahoma found that the level of education of an Indian was inversely proportional to his differential knowledge of his tribal language. That is, the more median years of education that an Indian had, the less the degree of his understanding of his tribal language. The findings in this study contradict those conclusions.

Thus, whether the Indian is bilingual, or whether he has graduated from high school or college seems to be unrelated to success in employment. Finally, even involvement in local adult Indian education programs seems to be unrelated to employment status (Table 29).

Formal education, while a sophistocated extension of traditional custom, fails to support Hypothesis Three, since neither group is effected by being exposed to it at any level. Table 19 indicated that there was only a mean difference of .97250 years between each group, which further supported these conclusions. Yet, those findings in Table 19 were at variance with the national median years of education of 8 years for the Indian. Perhaps, this may have been due to a subtle acculturation process that is taking place among non-reservation Indians of Oklahoma.

Graves (1967) found that if an Indian fulfilled a military obligation it appeared to be related to that Indian's degree of acculturation and his success in adjusting to an urban environment. For those reasons military preference and fulfilling a military obligation were investigated to determine if they were related to success in employment.

Table 31 indicates the military preferences of both groups, indicating that the employed are somewhat more diversified in their selections than the unemployed. However, these results are misleading due to the size of the samples. However, it is inter-

esting to note that 56% of those sampled who had fulfilled military obligations chose the Army. Perhaps this represents an extension of historical vestige.

Table 32 suggests that there is a significant difference in employment status and fulfillment of a military obligation($P<.001$). Such results may indicate that while serving this obligation the employed Indian indeed may have become more acculturated than the Indian not serving this obligation. The regimen and discipline of the service is centered around the interests of the non-Indian and is designed to meet the needs of strict organization. To this the young Indian must conform, and full acculturation may be an inevitability. When he leaves the service and returns, he brings with him those newly acquired behaviorisms which are often at variance with tribal customs. Of those behaviorisms, naturally, is the white man's concept of time which is dissonant certainly with the traditional Indian's concept of time. Because of this, it may be easier for that Indian to adjust better to the eight-hour working day.

Vocational training and vocational preference are variables somewhat related to the acculturation process. Typically, the Southern Plains Indians were hunters and nomadic followers of the herd. When the white man put the various tribes on reservations and told them to plow the soil and adopt agriculture specialties, they were essentially asking for the impossible. The Indian of

TABLE 31

Chi-Square Summary of Observed Frequencies of Employment Status and Military Preference

Group	Military Preference				Chi-Square
	Army	Navy	Marines	Air Force	
(1) Unemployed n = 25	15	2	1	7	9.73
(2) Employed n = 52	27	13	6	6	ndf = 3 P <.05

TABLE 32

Chi-Square Summary of Observed Frequencies of Employment Status and Military or Non-Military Status

Group	Military Service	Non-Military Service	Chi-Square
(1) Unemployed n = 59	26	33	47.10
(2) Employed n = 80	54	26	ndf = 1 P <.001

TABLE 33

Chi-Square Summary of Observed Frequencies of Employment Status and Job Preference

Group	Job Preference[a]										Chi-Square
	1	2	3	4	5	6	7	8	9	10	
(1) Unemployed n = 58	21	2	3	4	0	11	3	4	10	0	23.01
(2) Employed n = 80	29	5	5	11	9	9	2	7	1	2	ndf = 9 P <.01

Note. -- [a]Numbers correspond with scale taken from the Dictionary of Occupational Titles.

western Oklahoma had no knowledge of such skills. For many of them, this trade is still against their desires. That is not to say that the Indian could not take up this trade, for many have and have proven successful. Table 33 indicates first that there is a significant difference in employment status and vocational preference ($P<.01$). Notice that both groups perfer professional type careers over any other particular occupations. Employed Ss tend to prefer Title Four (farming, fishery, and forestry) more than the unemployed, while the latter prefer Titles Six and Nine (machine trades and miscellaneous, respectively). Also, notice from Table 33, that unemployed Ss, while not working at the time, prefer Title One. Perhaps this may represent an ideal, rather than a reality-oriented, choice. One final note of interest suggests that apparently 51% of the employed Ss prefer jobs at which they currently are not working, suggesting that they too have additional aspirations.

Table 34 suggests that there is no difference in completion of vocational training and employment status. Those results agree with the findings of Blume (1968), that vocational training is unrelated to success in employment for the eastern Oklahoma Indian.

Vocational training and job preference refer to standards established by the dominant culture, and not necessarily to standards established by the Indian himself. Yet, they are related to

the overall acculturation process. It does appear that both groups have vocational aspirations, but that training in that area of choice does not serve to assist the Indian in holding down a position one way or the other.

Owning property is a factor that could reflect acculturative processes. Owning a home, a car, and land are factors that are represented in Tables 35, 36, and 37. Tables 35 and 36 indicate that owning a home and a car are more characteristic of the employed than unemployed Ss ($P<.01$ and $P<.001$, respectively). Those responsibilities require that the employed remain so if they wish to maintain such possessions and indeed reflect more acculturation than the unemployed.

Table 37 suggests that there is no significant difference in possessing land (regardless of the acreage) and employment status ($P<.98$). Land is something that the Indian usually has inherited from his forefathers, bequeathed to them by the government, tax free. Many Indians lease the land to non-Indian farmers while many leave their soil untouched.

One final variable of interest is the choice of vacation season for both groups (Table 38). There is no difference in choice of vacation season and employment status, suggesting perhaps an orientation to Indian custom, for the summer months are the height of the pow-wows in Oklahoma and surrounding states with Indian populations. This is true, naturally, for the major-

TABLE 34

Chi-Square Summary of Observed Frequencies of Employment Status and Completion of Vocational Training

Group	Vocational Training[a] Yes	No	Chi-Square
(1) Unemployed n = 29	18	11	.9083 ndf = 1 P <.30
(2) Employed n = 41	31	10	

Note. -- [a]Sixty-nine were not included in vocational training.

TABLE 35

Chi-Square Summary of Observed Frequencies of Employment Status and Home Ownership

Group	Home Ownership Yes	No	Chi-Square
(1) Unemployed n = 59	10	49	9.099 ndf = 1 P <.01
(2) Employed n = 80	34	46	

TABLE 36

Chi-Square Summary of Observed Frequencies of Employment Status and Automobile Ownership

Group	Automobile Ownership Yes	No	Chi-Square
(1) Unemployed n = 59	23	36	49.291 ndf = 1 P <.001
(2) Employed n = 80	76	4	

TABLE 37

Chi-Square Summary of Observed Frequencies of Employment Status and Possession of Land

Group	Land Possession Yes	No	Chi-Square
(1) Unemployed n = 59	27	32	.00096 ndf = 1 P <.98
(2) Employed n = 80	38	42	

TABLE 38

Chi-Square Summary of Observed Frequencies of Employment Status and Choice of Vacation Season

Group	Season of Year Desire Vacation Summer	Fall	Winter	Spring	Chi-Square
(1) Unemployed[a] n = 44	34	5	5	0	.87 ndf = 3 P <.30
(2) Employed n = 60	44	8	7	1	

Note. -- [a]Several Ss had no particular choice, while the remainder failed to respond.

ity of the non-Indian cultures.

In summary, the results of the data pertinent to relocation, familial and marital patterns, military status, and particular property holdings tend to support Hypothesis Three; that the employed Indian, while still retaining much of his Indian heritage, is in general more acculturated than the unemployed Indian.

Thus, it appears that the sociolcgical variables like the psychological, can be separately analyzed to serve as predictors

of employment status and further permit more succinct descriptions of such individuals, be they employed or unemployed.

The following chapter will contain elaborate discussions of the results of many of the statistical treatments used in this study. A brief review of the hypotheses will be offered as well as more thorough discussions of their relevance. Suggestions will be offered for follow-up research.

CHAPTER V

DISCUSSION

The overall purpose of this study was to describe the psychosocial characteristics of unemployed and employed male Indians from western Oklahoma. In attempting such a description, several variables were examined to determine in fact if both groups were distinctly different from one another as well as the degree of that difference.

Using the 18 CPI scale scores and 13 additional Labor Force Survey variables, a linear discriminant analysis indicated that there was a significant difference between the two groups, which supported Hypothesis One, that a set of *a priori* psychosocial variables can serve as an index for discriminating between unemployed and employed male American Indians without prior knowledge of one or the other group's employment status. Those results strongly suggested that the two samples constitute two different populations, and the variables used in the discriminating process can serve to differentiate a member from one or the other group. Noteworthy, was the fact that only one of those 31 variables indirectly indicated employment status. Naturally, that variable

(distance to job) contributed to the discriminatory process but the weight was not the most powerful, according to its rank of 5 out of 31.

The linear discriminant analysis furthered the discriminating process and broke down each S according to his probability of association with one group or the other. That process strongly supported Hypothesis One-a, since it placed 47 of the predicted 50 unemployed Ss in their appropriate category and 74 of the predicted 80 employed Ss in their respective category. Of specific interest were Ss who were reclassified into the other groups.

The three reclassified "unemployed" Ss received relatively high predictions where $P<.952$ of being employed. In reviewing the overall data obtained from these Ss (identification numbers 10006, 10013, and 30008 -- see Appendix D) it was found that all of them were married and had a mean number of 4 children and a mean number of 6.6 residents including themselves living in their homes. Moreover, they had a mean number of 17.6 months of vocational training and a mean number of 11.11 years of education. Two of them completed both their vocational training and their high school educations. Finally, their mean age was 33 years (see Table 19 for group comparisons).

These characteristics were indeed more like those of the employed than unemployed Indians, suggesting that they contribute heavily to the prediction process. The variables cited reflected

training and responsibility, certainly necessary criteria for employment. Subject 10006 had a high score on the CPI scale, responsibility, while the two others had rather low scores. In fact, subject 10006 had CPI scale scores that were more like those of an employed than an unemployed Indian. The question, "Why was he unemployed?" remains, for indeed he was unemployed at the time of the study. The answer is simple, he was drawing income from his leased land and living in a home given to him by his relatives (interpolated from the responses on the Labor Force Survey).

The other two Ss had low to moderate CPI scale scores particularly on sense of well-being, self-control, tolerance, good impression, and responsibility, suggesting trends toward an irresponsible, undependable, and indifferent personality. In addition, those two Ss had low scores on achievement via conformity, suggesting that they were insecure and easily disorganized under pressures to conform. On the contrary, their scores on the scale, achievement via independence, indicated that they might function well in situations requiring autonomy and independence.

At best, subject 10006 ($P<.631$) could probably hold a job, since all of his CPI scale scores were moderate to moderate-high in areas of socialization, responsibility, and achievement potential. Individual counseling on a job of his choice could probably assist him more thoroughly in maintaining a more than adequate in-

come. Ss 10013 and 30008 would require individual attention in the area of self-concept which appears causally related to their unemployment. However, there is a risk factor attached.

The discriminant analysis indicated that six of the employed Ss should be more associated with Ss in Group 1, the unemployed, and the respective probability for this association. Subject 40025 who had the highest probability ($P<.81643$) had low CPI scores on social presence and responsibility, which indicated that he possessed a lack of self-confidence and an irresponsible nature. Contradicting this were his high scores on communality, self-acceptance, and flexibility. Self-acceptance negated his apparent lack of confidence while communality stressed his possibly reliable, patient and industrious abilities. Flexibility stressed his possible ability to adapt to social norms, be they non-Indian or Indian. With a disbalance of responses on these scales, S might be ambient in his total personal outlook, where at times he felt confident and responsible and at other times, irresponsible and lacking confidence.

Subject 40025 was married and his wife was employed full-time, assisting possibly in the support of their four children. He had had 11 years of education, no vocational training, and no military service. He was a full-blooded Kiowa and spoke the Kiowa language fluently. He was employed at various jobs before going to work for Sequoyah Mills in Anadarko where he had been

since the plant opened. Why did the discriminant analysis classify him in the unemployed group? The variables concerning education and vocational training were low by comparison, as were some of his CPI scores. Yet, he was employed and was still employed eight months after the study period.

Subject 70018 had P<.71028 of association with the unemployed sample. He was 40 years old, a Navajo and spoke the language fluently, married a non-Indian woman, had two children, owned his home and car. He had four years of military service in the Army, 14 years of education, and had completed 18 months of vocational training.

This S had low CPI scores on sense of well-being, achievement via conformity, and intellectual efficiency. Combined, these indicated that he tended to be leisurely, cautious, somewhat unambitious, anxious, dissatisfied, lacking self-insight and understanding, and lacking self-direction. This negative personal outlook, however, appeared to be compensated by his ability to adapt to new and unfamiliar situations and his patient, realistic and conscientious nature (CPI scales, communality and felxibility). In lieu of these elements of his self-concept, it should be pointed out that he left the Navajo reservation on his own to seek gainful employment and to develop for himself a meaningful existence. Such adventurous qualities, coupled with his military service, education and training, and his non-Indian wife reflected an attempt on his

--

part to become a part of the mainstream of acculturative living, bridging his Indianness with the dominant culture.

The remaining four Ss (40003, 40018, 40021, and 70012, respectively) all came from different tribes, but understood their tribal languages well. They were all married, and two of the wives worked full-time. The youngest was 24 and had no children, while the oldest was 48 and had seven children, four of which were living with him and his wife. All had fulfilled military obligations and had completed 12 years of education. The oldest and youngest had some vocational training, 48 and 12 months respectively. The oldest had completed his program while the youngest had not. All of them owned a car and at least 25 acres of land. Two owned homes.

All of the above Ss had low CPI scores on responsibility, tolerance, sense of well-being, achievement via independence, and social presence. These low responses suggested self-concepts centering around vacillations and uncertainties about decisions; changeable, moody and disbelieving outlooks in personal and social situations; cautiousness; apologetic self-defensiveness; inhibitiveness; and submissiveness and compliance before authority. Most striking were the flexible, ambient qualities of these Ss, suggesting a state of flux in regard to their Indian cultures and adoption of non-Indian, dominant cultural patterns.

Despite the low scores on certain personality scales, all of the six "employed" Ss had high scores on self-acceptance, communality, and flexibility. These CPI scales reflected the possibility that Ss were assertive, insightful, adaptive, reliable, steady, realistic, conscientious, self-confident, and self-assured. These patterns reflected their employment statuses, and their concomitant attitudes toward the possibility of maintaining such statuses. However, discriminant analysis did indicate a 50/50 or more probability of their being unemployed.

To intervene on those personality variables with direct, individual counseling could better assist them in developing more positive outlooks toward themselves, their present vocations, and their futures, be they personal or social. Unfortunately, no counseling of this type was directly available and no effort on the employer's part to secure such counseling has been taken. Noteworthy, was the fact that one S left his job four months after the study, was unemployed for two months, and then returned to his previous job, nontheless better off for leaving in the first place.

The linear discriminant analysis is ideal then for predicting the group to which an Indian may be associated, based on the variables used in the analysis. Such an analysis could assist employers in determining the risk factor attached to hiring an applicant and what adjustments the personnel division of any industrial firm should pursue in assisting the applicant in maintaining a position.

With a backlog of storage information maintained in a centralized, personnel bank, plus a highly refined computer retrieval system, immediate information and comparisons could be made on all newly hired personnel. These efforts, if undertaken, should indeed upgrade morale, not to mention the production quotas, if they exist. Further research is suggested in this area, not only for Indians, but for members of all ethnic groups, including the dominant culture.

One research project of necessity is to pursue the predictive and concurrent validity of the 31 variables used in the discriminant analysis. Follow-up research should be conducted on a random sample taken from both groups to determine their employment statuses. Of interest, indeed, would be Ss that the analysis indicated should be unemployed or employed. In a few instances this has been done, as indicated earlier in this section. But the research should be on a retest basis to determine if any appreciable changes occur in the self-concept, in one direction or the other.

To assess pattern clusterings of the psychosocial variables, a principal components and an orthogonal varimax factor rotation were performed on the variables. The findings on the principal components analysis of both groups indicated that the variables loaded under specific like-pattern clusterings. That is, personality scales loaded highest on the first component, and accounted for a majority of the variance, while the sociological variables

distributed themselves over a maximum of 14 components (13 for the unemployed).

Many of the personality variables loaded on other components, yet in some instances, they were negative loadings. The same held true for some of the sociological variables. In fact, the latter seemed to spread themselves over more components than did the personality variables.

Because of that spread, a varimax orthogonal rotation was computed for both groups to maximize the variance of each variable on a particular factor. The factors obtained clearly indicated that the personality variables formed specific clusters paralleling the findings of Mitchell and Pierce-Jones (1960) and Nichols and Schnell (1963). The Nichols and Schnell factors, "Value Orientation" and "Person Orientation," were identical to the Mitchell and Pierce-Jones factors, "Adjustment by Social Conformity" and "Social Poise," which further verified the clustering patterns of the CPI. In fact, the first two factors corresponded closely to the first two classes of the CPI scales formed by Gough, and Factors I and V of this study.

A technical problem was detected among the various factor loadings of both groups. Nichols and Schnell (1963) found an item overlap of the items among the CPI scales which had a tendency to produce spuriously high correlations. However, they maintained that such a spurious state did not markedly affect the factor

structure. This overlap was obtained in the factor analysis performed on the variables in this study, and it was thought that it did not affect the factoring process, despite the high communalities computed on many of the variables.

Returning now to the problem of interpretation of the factors, it was found that there was a clear set of common factors among the criteria variables. Those common factors suggested a response style to a set of particular items. These response styles offered the possibility of acquiescence. Nichols and Schnell (1963) found that their Factors Scales P and V (Factors I and V in this study, respectively) did not offer such. They concluded that because 78% of the items of V were keyed false and P had about equal numbers of true and false responses, it would be presumptuous to conclude that the responses to V were correspondingly weighted with acquiescence. That lack of acquiescence in this study could be ruled out since similar factors were obtained.

One limitation of the factor analysis computed rested on factor identification and description, since these are partially dependent upon Gough's original selection of items and his descriptions of the scales and the classes. In no way, though, did this negate the fact that the 18 CPI scales represented a set of much smaller personality dimensions. It might well be that self-control alone could be a good measure of Factor I, "Adjustment by Social Conformity Through Independent Thought and Action" since

it loaded highest. Moreover, it correlated highly with communality, achievement via conformity, good impression, and sense of well-being. Self-acceptance might well be a singularly good measure of Factor V, "Social Poise Through Self-Regultive Strengths," since it loaded and correlated highly with variables on that particular loading.

Further research is suggested by using the two scales alone for predicting employment status. Perhaps a few of the other scales could be included to enhance the overall predictive validity of the condensed inventory. It must be pointed out, though, that the factor analysis computed was performed on a sample quite different from the other samples used by other authors of factor studies. And it may be that the Indian sample might require a different set of items to measure the same scales. Only further research can determine this.

For purposes of analysis in this study, the factor analysis did indicate that the psychological and sociological variables could be separately analyzed, and that the Mitchell and Pierce-Jones factors rather than Gough's classes could be used to assess response differences between the groups.

The differences found by using the $\underline{t}$ test for uncorrelated means offered some very interesting differences in the self-concepts of unemployed and employed male Indians. Using Gough's descriptive patterns (see Gough, H. G., 1964 pp. 10-11) for a

reference, the following personality patterns were found to support Hypotheses Two-a, -b, -c, -d, and -e.

According to those scales on the CPI that indicated a significant difference, there were several characteristics that emerged that offered a relative descriptive difference between both groups. Working within the framework of the self-concept, those patterns suggested that, in general, employed males tended to perceive themselves as more ambitious and valuing work and effort for its own sake, and more responsible, resourceful, reliant, efficient and industrious than unemployed males. In addition, unemployed males tended to perceive themselves as more cautious, defensive, stubborn and pessimistic about occupational futures than did the employed males.

To what degree these characteristics are different is up for speculation. The polemic descriptions that were offered by Gough (1964, pp. 10-11) leave a great deal of latitude for interpretation. Moreover, according to the CPI scales, individuals who score above the mean standard score of 50 tend to be described by the characteristics that serve as anchors for each scale respectively. The same principle applies for those who scored below the mean standard score of 50. Such interpretations then must be looked upon and interpreted with a great deal of descretion. At best, when the CPI is used for individual purposes one can anticipate that the profiles of one group or the other would tend to

parallel the findings in this study. At that point, more could be made of the characteristics that would emerge and could be applied more specifically in that idiographic situation.

The responses that each S made should be viewed in terms of a personal evaluation reflecting his specific set of values and standards which serve as what Turner (1968, p. 105) referred to as "a workable anchorage for social interaction." In part, then, the response patterns serve as a sample of the self-concept of an Indian who may represent either an employed or unemployed group. Naturally, the individual responses varied due to the variable uniqueness of each S. But the overall profiles did indicate significant differences between 8 of the scales and such differences do suggest salient differences in the self-concept of representatives from one or the other group.

A closer look at the mean difference scores on Gough's four classes offered very similar descriptions, but more condensed generalizations. The two classes that were found to be significantly different suggested that the unemployed S tended to be lazy, changeable, influenced by personal bias and spite, headstrong, impulsive and undependable, nervous and restless, and pessimistic about occupational futures. The employed S, on the other hand, tended to be responsible, thorough, capable, independent and dependable, resourceful, efficient and industrious, steady, thoughtful, tolerant, enterprising, tactful and realistic.

The factor mean difference responses that were significantly different between groups had very similar descriptions. The Mitchell and Pierce-Jones Factors I and IV added another descriptive element. Differences in those factors suggested that the employed S was strict and thorough in his own occupation and in his expectations of others, cooperative, organized, diligent, and persistent; while the unemployed S tended to be cool and distant in dealing with others, too little concerned with the needs and wants of others, and literal and unoriginal in his thoughts and judgments of personal and social situations.

These findings agreed with the research of Eisenberg and Lazarsfeld (1938) and Hernandez (1953) on the white Americans during the early 1950's. Both studies concluded that the unemployed are characterized by emotional instability, feelings of inferiority and inadequacy, moral deterioration, and loss of physical health. Eisenberg and Lazarsfeld (1938) also indicated that 90% of the samples reacted to the unemployment situation with disturbances of mood having the characteristics of a mild or moderate reactive depression. In addition, they suggested a general conclusion of practically all workers in the field of unemployment which maintained that: unemployment represents a personal threat to an individual's economic security, fear plays a large role; the sense of proportion is shattered, that is, the individual loses his common sense of values; the individual's

prestige is lost in his own eyes, and as he imagines, in the eyes of his fellow men, and he develops feelings of inferiority, loses his self-confidence, and, in general, loses his morale.

The unique element of this study centers around a comparison of employed and unemployed males of a different ethnic group, which has not been explored before. Yet, patterns of the self-concept appear to be similar to those found in earlier research. Whether this is the result of the confining, descriptive categories of the CPI or of acculturation is a moot question that should be explored more thoroughly. It has been suggested that acculturation has contributed to this dissonance experienced by most Indians, be they reservation or non-reservation types. However, it is felt that most men are like most other men, and when an individual is confronted with such circumstances as unemployment the response patterns and concomitant attitudes toward oneself would be similar to all men regardless of ethnic or cultural orientations.

The analysis of the self-concepts of the Kiowa and Comanche tribes offered support in this area. The findings there suggested quite similar patterns for unemployed Ss as those that were found in the overall analysis. Any descriptive breakdown of those differences would be redundant. The point remains, though, that what was true for a stratified sample of Indians in western Oklahoma was true for the Kiowas and Comanches as well. Noteworthy, was

the fact that the Comanche comparisons were significant on only Factor III and not in any others, but as was stated earlier, that may have been due to the rather small sample size. In fact, though, there was a trend in the direction of significance which suggested that more research should be done on specific intra-tribal as well as inter-tribal differences of self-concepts and employment statuses.

It was indicated earlier in Chapter III, that 19 different tribes were represented in the obtained samples, with 10 of them being indigenous to western Oklahoma. Of specific interest in using the CPI was the applicability of the inventory with an Indian population. It was suspected that the bilingual element would interfere with the full content validity of the scales. This apparently did not cause any problem whatsoever, since no Ss questioned the nature of the items. In three instances, however, the items had to be read to Ss because of their inability to read. In support of this approach, Gough (1964, p. 19) read aloud the questions to a group of Ss, using a split-half, cross-reliability procedure, and found no measurable differences as a result of the oral administration.

Upon inspection of the slopes of the various profiles, one sees an intricate paralleling along the 18 scales. Moreover, the slopes for both groups appear below the T scale mean of 50. This suggests that indeed the CPI was evidencing a group (or groups)

different from the more dominant culture, and that the CPI was tapping an Indianism. The slopes appear to rise and fall with each scale, and only evidence an appreciable difference at certain significant points.

It would be of interest to compare the means of the scales with those of other cultures, not to mention other Indian tribes throughout the United States, to determine their overall personality differences. In some instances, the CPI could be translated into the specific tribal language of the tribe under study. While certain items would have to be revised to fit the norms of the tribe, it would be interesting to see if differences in employment status would show up there as well as in other behavioral patterns. If so, appropriate forms of counseling could be implemented by trained, indigenous personnel to assist the member of the group to better deal with the problems he has encountered. The information from the CPI could assist these trained personnel in sharpening the focii of their counseling according to the variations that appeared.

That the unemployed could benefit from more individual counseling was supported by Blume (1968). Upon interviewing some Ss in his study, he gleaned the following appropriate comments relevant to the above suggestion.

> There should be more mature consultation and advice given to students. This is in reference to the employees of the Bureau of Indian Affairs.

> The Indians and others should have better counseling before they start in a certain trade. To make sure it's what they want to do to make a living. I have seen many guys who wasted their time and money. For when they finished school they found it wasn't really what they wanted to be. There are many such cases where they are working at something different than what they have been trained (Blume, P. R., 1968, p. 187).

It is one thing to train the hand of an individual to perform a task, whatever its nature. But to train and condition the attitude of the individual requires much more, particularly in reference to the Indian, for his way was not and is not the way of the dominant culture. Yet the tasks which are being required of him for survival are relevant to the dominant culture. It would seem, then, that counseling directed toward certain negative elements of the self-concept could bear fruition -- transient unemployment tends to lead to more and more discouragement. That could be eliminated if appropriate programs would be developed, and followed through.

Acculturation has been the central thread running through this study. At times the implications were covert; at other times they were quite apparent.

The last section of the results chapter dealt with a non-parametric analysis of different variables comparable to both groups. It was hypothesized that the degree of social acculturation was greater for the employed male Indian than for the unemployed. The varying differences found on the variables measured

seemed to support the hypothesis in part. Variables assessing relocation patterns, familial relationships, military statuses, and property holdings were significant in favor of the employed S. From those results it can be said, with a certain degree of reservation, that the employed S tends to adopt more of the dominant culture's ways than the unemployed S. However, there may be some artifacts and spurious relationships in the actual data.

While the employed S does tend to live more in a nuclear familial situation, this by no means, refers to the fact that the traditional extended family pattern has been abandoned. Even though relatives of Ss in question live farther away, that does not imply that periodic visitations do not take place. They do. The point is that the employed S tends to be more independent in maintaining his own family style, and no longer directly relies on other relatives for economic survival.

Owning a home and a car are outgrowths of earned income and naturally the unemployed S would not necessarily fall into this category. Of interest, is the fact that if S continues to depend on his elders and other relatives for survival, such responsibilities as home ownership could not possibly come about in most instances. True, S may inherit such property, but it is very unlikely that he could maintain it if he didn't hold down some sort of job. One BIA Employment Assistance officer stated candidly that if he could get an unemployed Indian committed to purchasing

some expensive luxury on a time basis, he had him committed to employment. While this is somewhat idealistic, there is some truth to it, for the dominant culture has recently been thriving on this principle, and S has to remain employed to continue to do so.

Part of the economic survival that confronts most individuals is the need for some sort of formal training and/or education. The institutions offering these attempt to prepare the individual for such economic and social survival. The results of the analysis concerning vocational training and education seem to be unrelated to employment, regardless of whether S attended an Indian boarding school, public school or college. Either the Indian sees no relevance to his being trained or educated, which is hardly the case, or education does not adequately prepare him for any particular employment responsibility. Or it may be that some other variables may be the causal reason for his being employed or unemployed. Blume (1968) found that despite the fact that many of the Indians who applied for vocational training had one or two years of college, the training they received was not correlated with success in employment, income, or desired vocation. Furthermore, he found that it was doubtful that training reduced the willingness of the Indian to relocate. However, the finding in this study, that completion of vocational training was not related to employment status, is at variance with one of Blume's

findings. Blume found that the differences between the pre-training and post-training adjusted levels of employment and income were statistically significant for those trainees who completed training. Perhaps this could be due to a preponderance of eastern Oklahoma Indians in his sample, as was not the case in this study, and the fact that members of those tribes were seemingly more acculturated per se than the western Oklahoma Indians.

The results obtained are in partial accordance with the findings of Graves who developed an acculturation index composed of seven items. Those items were

(1) Respondent lives in town rather than in countryside.

(2) Respondent has had military service experience.

(3) Respondent owns a TV set.

(4) Respondent reports a close Anglo friendship.

(5) English was spoken as the main language in respondent's home of orientation.

(6) English is spoken as the main language in respondent's present home.

(7) Respondent has membership in a formal group, club or organization(Graves,T., 1967, p. 309).

Those items were focused on the "psychological orientation" of the Indian toward the typical goals of the dominant American society. He found that less deviancy (i.e., alcoholism, etc.) was preponderant among the more acculturated Indians. That is, the acculturated Indian was one who responded positively to the

seven items above.

Of specific interest in this study is item two. As was indicated earlier, the employed Indian had significantly more military experience than the unemployed. None of the other items were accounted for directly in this study.

The remainder of the sociological variables, knowledge of a tribal language, acreage of land of S and his spouse, and vacation season, all indicated no difference between them and employment status. In a way, these variables reflected more the Indianness of Ss studied than did the others. That element was an important one, for it possibly suggested that an Indian could still retain much of his heritage and still economically survive. Even though the day of the buffalo, barberism and mastery of an extensive domain are gone, the Indian can still remain superior unto himself and still feel independent to whittle away at new techniques for living in contemporary society, and on top of that, remain an Indian. An Indian should not have just two alternatives, the "way of the early days" or the "way of the white man." The only alternative is simple to redefine an awareness of what it means to be an Indian in contemporary society, and be ready to defend it on the basis of his needs.

This study, then, described the salient characteristics of a particular type of American. The characteristics found by no means reflected all those that may exist. For this reason, more

in-depth research should be focused on such variables as aspiration-level, influences of identification with other family or tribal members and their employment statuses, moral attitudes, and the effect of unemployment on S's children and spouse. However, the greatest need in this field of investigation should be an effort to lay out a network of interlocking, theoretical problems so that whoever has the regrettable opportunity to study unemployed Indians could see what information is most needed and where his contribution could do the most toward improving the very deficient knowledge of the psychosocial effects of unemployment.

For the Indian the rate of change from yesterday to today has been bestowed with many problems and many individuals have resisted change, perhaps justifiably. Many Indians have foreseen the changing order and the way ahead for themselves and their people. One such person foresaw it many years ago and he summed up then his desires for his people. That man, Chief Running Bird of the Kiowas, stated:

> I am getting old now, and I am getting up in years, and all I wish at the present time is for my children to grow up industrious and work, because they cannot get honor in war as I used to get it. They can get honor only by working hard. I cannot teach my children the way my father taught me, that the way to get honor is to go to war; but I can teach my children the way to get honor is to go to work, and be good men and women (Mayhall, M. P., 1962, p. 272).

CHAPTER VI

SUMMARY

This study focused upon determining the psychological and sociological characteristics of unemployed and employed male western Oklahoma Indians. An attempt at collapsing the two behavioral processes was undertaken in an effort to determine the salient characteristics and differences of the two presupposed populations. Thus, the basic purpose of the study was to offer more descriptive and inferential information about a particular residual population.

Representing 19 different tribes living in western Oklahoma, 143 Ss were presented with the California Psychological Inventory and a Labor Force Survey. The CPI is an instrument which describes one's self-concept in socially interactive terminology, while the Labor Force Survey is a list of 51 items constructed for the study pertinent to biographical and sociological information about an unemployed and employed individual.

Employed Ss constituted a stratified sample obtained through their employers; namely the Sequoyah Mills Industries in Anadarko and Elk City, and the offices of the Bureau of Indian Affairs at

Anadarko and Concho, Oklahoma. The unemployed Ss also constituted a stratified sample that was obtained from lists compiled by the Anadarko Office of Employment Assistance of the BIA, the Lawton Office of the Oklahoma Security Commission, and the Community Action Agency of Blaine County at Watonga, Oklahoma.

The researcher, along with assistants of Indian blood and indigenous to the respective areas, contacted Ss during the month of August, 1968, which is a time when Indians of western Oklahoma tend to conglomerate more in the native areas than at any other time of the year. From the sampling procedures, a total of 130 Ss, 50 unemployed and 80 employed, completed both forms.

The data, in the form of 69 variables (18 CPI scales and 51 Labor Force Survey variables), were analyzed by various appropriate, statistical techniques. Using 31 of the variables, a linear discriminant function analysis was computed to determine if the two groups represented such. A Mahalonobis D^2 of 222.54602 and an F-statistic of 168.90786 were computed. Both were significant at $P<.00001$ level of confidence. An X^2 of 121 was obtained on the frequency of classification of Ss from predicted to classified groups, which was significant at the $P<.0001$ level of confidence. In addition to entering S into one or another group, the linear discriminant function analysis computed the probability of association on each S with each group. In Group 1 72% had $P<.90$ while 60% of Group 2 had $P<.90$ of association with their assigned

groups.

The findings from that analysis were: (One) a set of a priori psychosocial variables can serve as an index for discriminating between unemployed and employed male American Indians without prior knowledge of one or the other group's employment status; and (One-a) such a set of indices can serve to predict the probability of being associated with one group or another.

A variance-covariance matrix was obtained from the linear discriminant analysis in an effort to determine the contributing value of each variable, as well as obtain information relevant to the direction of the differences. Not enough information was available to determine this.

A Wilcoxen Matched Pairs Signed-Ranks Test was computed on the 31 variables to determine the homogeneity of one group over another. A I value of 193 ($z = 0.97$) was obtained which had a $P<.1160$ of being significant. The same statistic was computed with 43 variables which yielded a I value of 368 ($z = -1.260$) and a $P<.1038$ of being significant.

The findings from that computation did not support the hypothesis (One-b) that unemployed Indians are a more homogeneous group than employed Indians. But the results did indicate a trend in that direction.

The next statistical procedure determined what variables clustered together to give a more parsimonious description of

their contributions. Two correlational matrices were computed, a 44 x 44 matrix for the employed sample and a 43 x 43 matrix for the unemployed sample. Fourteen principal components were computed for the employed matrix and 13 principal components were computed for the unemployed matrix.

Only two principal components from the unemployed matrix loaded highly enough to be retained for descriptive purposes. Three principal components loaded highly on the employed matrix and were also retained. In general, those principal components contained loadings of all of the 18 CPI scales and eight to 12 sociological variables. Because the variables in each were spread out over their respective components, a varimax orthogonal rotation was performed. The 43 x 43 unemployed matrix was reduced to a 37 x 37 matrix due to the number of zero variances obtained on some of the variables.

The 44 x 44 employed matrix produced 14 factors and Factors I and V were retained for descriptive purposes. The 37 x 37 unemployed matrix produced 11 factors and Factors I, II and III were retained.

The factor analytic varimax orthogonal rotation results suggested that the CPI and the sociological variables could be separately analyzed to determine specific differences between either the CPI scales or the sociological variables. In addition, the findings from the employed matrix closely paralleled other factor

analytic studies using CPI scores.

The 18 CPI scale scores were broken down into mean scores and were matched paired with both groups and analyzed using a T test for unequal n's. Eight of the scales were significantly different, while the remaining ten scales had difference scores, but the difference was not great enough to be significant.

The four classes developed by Gough, the author of the CPI, were analyzed by grouping and summing the mean scores appropriate to each class. Two of the classes were significantly different. In addition, the same procedure was used for the four factors found by Mitchell and Pierce-Jones and three of those factors were significant.

The Kiowa tribe was compared by using the 18 CPI scales and comparing them for both groups. Eight of the 18 scales were significant. Comparisons were also made on the four Mitchell and Pierce-Jones factors and three of them were significant. A similar mean group comparison was computed for the Comanche tribe and Factor IV was significant. Comparisons were made of both tribes on both groups combined and no significant differences were obtained.

The previous findings suggested that: (Two) there are certain basic differences in the self-concept between unemployed and employed male American Indians; (Two-a) there are no differences in the measures of social poise between unemployed and employed

Indians; (Two-b) employed Indians conform more to social responsibilities than unemployed Indians; (Two-c) employed Indians are more alert to moral responsibilities than are unemployed Indians; (Two-d) employed Indians have a greater capacity for independent thought and action than unemployed Indians; and (Two-e) there are no inter-tribal differences in the self-concepts of employed and unemployed Indians.

In addition, the findings supported in part the use of the factors found for the two groups and the findings of Mitchell and Pierce-Jones. But the factors obtained in this study cannot be mathematically compared on a factor-to-factor basis with those of other findings.

Nineteen of the sociological variables taken from the Labor Force Survey were subjected to nonparametric evaluations based on the frequency of the responses of each S to a particular variable. Those variables: relocation, marital status, marital status and resident patterns, employment of spouse, military preference, military versus non-military, job preference, and home and automobile ownership, were all significant in favor of the employed group. The variables: tribal affiliation of spouse, secondary school affiliation, graduation from an Indian or public secondary school, college attendance, speaking knowledge of Indian, adult education involvement, completion of vocational training, possession of land, and choice of vacation season were all nonsignifi-

cant. In addition, a biserial correlation was run on number of years of education and speaking knowledge of Indian, and no relationship was found.

These findings tend to support the hypothesis that the degree of social acculturation is greater for the employed than for the unemployed. Such a conclusion was based on the assumption that many of the variables were more particular to the dominant culture than to the Indian culture, but by no means does this assert the fact that if an Indian wants employment he has to give up most of his Indian ways.

Finally, the results were discussed in terms of the overall characteristics of both groups and the theoretical meaningfulness of pursuing the predictive validity of those characteristics. Additional research and implementation of the present findings were recommended.

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APPENDIX A

LABOR FORCE SURVEY

CONFIDENTIAL

AMERICAN INDIAN INSTITUTE
UNIVERSITY OF OKLAHOMA

LABOR FORCE SURVEY

Name: _____ Also known as: _____

☐☐ 1. Age _____

☐☐ 2. Place of birth by county _____

☐☐ 3. Location of present residence by nearest town: _____

☐☐ 4. Number of brothers living: _____

☐☐ 5. Number of sisters living: _____

☐☐ 6. Number of brothers older than you: _____

☐☐ 7. Number of sisters older than you: _____

☐☐ 8. Tribe (Circle one): 1. Apache 2. Arapaho 3. Caddo
4. Cheyenne 5. Cheyenne-Arapaho 6. Comanche
7. Delaware 8. Kiowa 9. Kiowa-Apache
10. Wichita 11. Mixed Indian 12. Other _____

☐☐ 9. Marital status (Circle): 1. Married 2. Single
3. Widowed 4. Divorced 5. Separated

☐☐ 10. If married, is your spouse employed (Circle one):

1. Yes, full time 2. Yes part time 3. No

☐☐ 11. Tribe of your spouse (Circle one): 1. Apache 2. Arapaho
3. Caddo 4. Cheyenne 5. Cheyenne-Arapaho
6. Comanche 7. Delaware 8. Kiowa
9. Kiowa-Apache 10. Wichita 11. Mixed Indian
12. Other (List) _____ 13. Non-Indian

Education (Circle highest level):

12. Public 1 2 3 4 5 6 7 8 9 10 11 12

13. Indian (Federal) 1 2 3 4 5 6 7 8 9 10 11 12

14. Mission 1 2 3 4 5 6 7 8 9 10 11 12

15. College 1 2 3 4 5 6 7 8

16. Are you involved in any Adult Education Program for Indians? (Circle one): 1. Yes 2. No

17. Military record and branch of service (Circle one):

1. Army 2. Navy 3. Marines 4. Air Force 5. Other
6. None

18. Type of discharge: (Circle one): 1. Honorable 2. Dishonorable

19. Service-connected disability (Circle one): 1. Yes 2. No

20. Speaking knowledge of English (Circle one):

1. Good 2. Fair 3. Poor 4. None

21. Reading knowledge of English (Circle one):

1. Good 2. Fair 3. Poor 4. None

22. Understanding another language other than English (Circle one):

1. Yes 2. No

23. Other language (Circle one): 1. Kiowa 2. Comanche 3. Apache
4. Cheyenne 5. Caddo 6. Wichita 7. Mixed Indian 8. Arapaho
9. Other (List) _____

24. How many children do you have? _____

25. How many children live with you? _____

26. How many of the children that live with you are your own offspring?

_____

27. Besides these children, who else lives with you in your house?

(Circle the numbers of the statements which apply)

1. No one - I live by myself.
2. Spouse (Husband or Wife)
3. One or both of your parents
4. Your aunt and/or uncle
5. Your spouse's aunt and/or uncle
6. One or both of your grandparents
7. One or both of your spouse's grandparents
8. Your spouse's parents
9. Others such as brothers, sisters, friends, etc.

28. Including yourself, how many people live in your home at one time?

_____

29. How far do you live from place of employment? _____
(In approximate miles)

30. How far do you live from where you would like to work? _____
(In approximate miles

31. Which month or months of the year would you prefer <u>not</u> to work?

(Circle your choice) 1. January 2. February 3. March 4. April
5. May 6. June 7. July 8. August 9. September 10. October
11. November 12. December

32. List total acreage of land that you possess.(Approx.) _____

33. Is this land owned by you? (Circle one) 1. Yes 2. No

34. List total acreage of land that your spouse possesses_____
(Approximate)

35. Is this land owned by your spouse? (Circle one) 1. Yes 2. No

36. Do you own your own home? (Circle one) 1. Yes 2. No

37. Do you own a car? (Circle one) 1. Yes 2. No

38. Do you collect an income on your or your spouse's land? (Circle one)

1. Yes 2. No

39. Did you collect any other income not including that from your land

during the past 12 months? (Circle one): 1. Yes 2. No

40. If so, circle the source of that income below.

1. Welfare 2. Unemployment compensation 3. Social Security

4. Head Right 5. VA 6. BIA 7. DPW 8. Others (List) _____

9. None

41. How long did you collect this additional income (in months)? _____

42. Have you ever had vocational training? 1. Yes 2. No

43. For how long (in months)? _____

44. Did you complete the vocational training program? 1. Yes 2. No

☐☐ 45. What kind of employment do you prefer?(Circle one)

1. Professional, technical and managerial - architecture, engineering, science, medicine, health, education, law, theology or religion, writing, art, entertainment, recreation, manager of industry, administration.

2. Clerical and sales - stenography, typing, filing, computing and account recording, material and production recording, information and message distribution, salesmen and sales persons.

3. Service - domestic, food and beverage preparation, lodging, barbering, cosmetology, amusement and recreation, apparel and home furnishings, protective services (police fireman, sheriff).

4. Farming, fishery, forestry - plant and animal farming, fishery operations, forestry occupations, hunting, trapping, agricutural services.

5. Processing - processing of metal, ore refining and foundry work, processing of food, tobacco, processing of paper, petroleum, coal, natural and manufactored gas, chemicals, plastics, synthetics, rubber, paint, wood and wood products, stone, clay, glass, leather, textiles, carpets.

6. Machine trades - metal machining, metalworking, mechanics and machine repair, paperworking, printing, wood machining, machining stone, clay, glass, textile machine operations

7. Bench work - fabrication, assembly and repair of metal products, fabrication and repair of scientific and medical apparatus, photographic and optical goods, watches, clocks, assembly and repair of electrical equipment, painting and decorating, fabrication and repair of plastics, synthetics, rubber, wood products, sand, stone, clay, glass, textile, leather and related products.

8. Structural work - metal fabricating, welders, flame cutters, electrical assembling and installation, painting, plastering, waterproofing, cementing, excavating, grading, paving, construction work.

9. Miscellaneous - Motor freight occupations, transportation, packaging and materials handling, extraction of minerals, logging, motion picture occupations, graphic art work.

10. Other (Please list) _____

_____

☐☐ 46. Total number of jobs or positions held over the following years.

(Fill in one blank only.)

1. Over past five years _____

2. Over past ten years _____

3. Over past fifteen years _____

4. Over past twenty years _____

☐☐ 47. List one of your longest and most important jobs. _____

☐☐ 48. What kind of employment are you involved in at the present? (See item 45 for descriptions).

1. Professional, technical and managerial occupations

2. Clerical and sales occupations

3. Service occupations

4. Farming, fishery, and/or forestry occupations

5. Processing occupations

6. Machine trades occupations

7. Bench work occupations

8. Structural and construction work occupations

9. Miscellaneous

10. Other (List)

☐☐ 49. Do you have any white friends? (Circle one) 1. Yes 2. No

☐☐ 50. How close are you to your white friends? 1. Very close 2. Close 3. Not close, but trustworthy

☐☐ 51. Are your white friends different from other white people? (Circle one).

APPENDIX B

IBM PROGRAM CARD STATEMENTS

CARDS ONE AND TWO

APPENDIX B

IBM PROGRAM CARD STATEMENTS -- CARD ONE

Variable Number	Card Columns	California Psychological Inventory Variable
ID	1	Subgroup Identification Number
ID	2-5	Subject Identification Number
1	7-8	Dominance (Do)
2	10-11	Capacity for Status (Cs)
3	13-14	Sociability (Sy)
4	16-17	Social Presence (Sp)
5	19-20	Self-Acceptance (Sa)
6	22-23	Sense of Well-Being (Wb)
7	25-26	Responsibility (Re)
8	28-29	Socialization (So)
9	31-32	Self-Control (Sc)
10	34-35	Tolerance (To)
11	37-38	Good Impression (Gi)
12	40-41	Communality (Cm)

APPENDIX B (continued)

IBM PROGRAM CARD STATEMENTS -- CARD ONE

Variable Number	Card Columns	California Psychological Inventory Variable
13	43-44	Achievement via Conformance (Ac)
14	46-47	Achievement via Independence (Ai)
15	49-50	Intellectual Efficiency (Ie)
16	52-53	Psychological-Mindedness (Py)
17	55-56	Flexibility (Fx)
18	58-59	Femininity (Fe)

APPENDIX B (continued)

IBM PROGRAM CARD STATEMENTS -- CARD TWO

Variable Number	Card Columns	Labor Force Survey Variable
ID	1	Subgroup Identification Number
ID	2-5	Subject Identification Number
1	6-7	Age
2	8-9	Place of Birth by County
3	10-11	Present Residence by Town
4	12	Lived in Same Area Most of Life
5	13	Number of Brothers Living
6	14	Number of Sisters Living
7	15	Birth Order
8	16-17	Tribe
9	18	Marital Status
10	19	Employment Status of Spouse
11	20-21	Tribe of Spouse
12-15	22-24	Education
16	25	Involvement in Adult Education
17	26	Military Record
18	27	Type of Discharge from Military
19	28	Service Connected Disability

APPENDIX B (continued)

IBM PROGRAM CARD STATEMENTS -- CARD TWO

Variable Number	Card Columns	Labor Force Survey Variable
20	29	Speaking Knowledge of English
21	30	Reading Knowledge of English
22	31	Understand Indian Language
23	32-33	Type of Indian Language Understood
24	34-35	Number of Children Have
25	36-37	Number Children Living With Person
26	38-39	Number Children That Are Own Offspring
27	40-41	Types of Residents in Home
28	42-43	Number of Residents in Home
29	44-45	Distance From Residence to Job
30	46-47	Desired Distance From Residence to Job
31	48-49	Months of Year Desire Not to Work
32	50	Acreage of Land Subject Possesses
33	51	Own Land
34	52	Acreage of Land Spouse Possesses
35	53	Spouse Own Land
36	54	Own Home

APPENDIX B (continued)

IBM PROGRAM CARD STATEMENTS -- CARD TWO

Variable Number	Card Columns	Labor Force Survey Variable
37	55	Own Car
38	56	Collect Income on Spouse's Land
39	57	Income Other than Land
40	58	Source of Income
41	59	Length of Collection of Income
42	60	Have Vocational Training
43	61-62	Length of Vocational Training
44	63	Completion of Vocational Training
45	64-65	Kind of Employment Prefer
46	66-67	Total Number Jobs Held Over Years
47	68-69	Longest and Most Important Job
48	70-71	Type of Job Presently Hold
49	72	Have Any White Friends
50	73	Closeness of White Friends
51	74	Difference in White Friends

APPENDIX C

CODING STATEMENTS FOR

ORIGINAL OBSERVATIONS

APPENDIX C

CODING STATEMENTS FOR ORIGINAL OBSERVATIONS

Subgroup Identification Number (Card Column 1)

1 -- Unemployed Anadarko

2 -- Unemployed Lawton

3 -- Unemployed Watonga

4 -- Employed Sequoyah Mills Anadarko

5 -- Employed Sequoyah Mills Elk City

7 -- Employed Bureau of Indian Affairs Anadarko Agency

8 -- Employed Bureau of Indian Affairs Concho Agency

Counties (Card Columns 8-9)

1 -- Adair	20 -- Custer	49 -- Muskogee
3 -- Atoka	26 -- Grady	39 -- Le Flore
6 -- Blaine	27 -- Greer	57 -- Pawnee
4 -- Beaver	35 -- Kay	54 -- Okmulgee
8 -- Caddo	36 -- Kingfisher	58 -- Payne
9 -- Canadian	37 -- Kiowa	73 -- Washita
12 -- Choctaw	43 -- McCurtain	77 -- McKinley, N. M.
16 -- Comanche	44 -- McIntosh	76 -- Moody, S. D.
19 -- Creek	47 -- Mayes	75 -- Shannon, S. D.

APPENDIX C (continued)

CODING STATEMENTS FOR ORIGINAL OBSERVATIONS

Town of Residence (Card Columns 10-11)

1 -- Anadarko	9 -- Elk City	17 -- Shawnee
2 -- Apache	10 -- Elgin	18 -- Verden
3 -- Binger	11 -- El Reno	19 -- Washita
4 -- Broxton	12 -- Gracemont	20 -- Watonga
5 -- Calumet	13 -- Kingfisher	21 -- Yukon
6 -- Carnegie	14 -- Lawton	22 -- Snyder
7 -- Cement	15 -- Meers	23 -- Colony
8 -- Concho	16 -- Mountain View	

Tribal Affiliation (Card Columns 16-17, 20-21 and 32-33)

1 -- Apache	11 -- Mixed Indian	21 -- Caddo-Wichita
2 -- Arapaho	12 -- Cherokee	22 -- Choctaw-Chickasaw
3 -- Caddo	13 -- Creek	23 -- Cheyenne-Kiowa
4 -- Cheyenne	14 -- Choctaw	24 -- Creek-Caddo
5 -- Cheyenne-Arapaho	15 -- Chickasaw	25 -- Creek-Seminole
6 -- Comanche	16 -- Pawnee	26 -- Navajo
7 -- Delaware	17 -- Sac and Fox	27 -- Sioux
8 -- Kiowa	18 -- Seminole	28 -- Yakima
9 -- Kiowa-Apache	19 -- Kaw	29 -- Quapaw
10 -- Wichita	20 -- Pawnee-Wichita	30 -- Non-Indian
		31 -- Comanche-Kiowa

APPENDIX C (continued)

CODING STATEMENTS FOR ORIGINAL OBSERVATIONS

Education (Card Columns 22-24)

2 -- Public 3 -- Indian (Federal) 4 -- Mission 5 -- College

Months Prefer Not to Work (Card Columns 48-49)

1 -- January	14 -- January-June-December
2 -- February	15 -- January-December
3 -- March	16 -- August-November-December
4 -- April	17 -- September to December
5 -- May	18 -- December to February
6 -- June	19 -- July-August-December
7 -- July	20 -- June to August
8 -- August	21 -- July-August
9 -- September	22 -- February-July
10 -- October	23 -- June-July
11 -- November	24 -- November-December
12 -- December	25 -- September-October
13 -- July-August-September	26 -- September to January

Land Acreage (Card Columns 50 and 52)

1 -- 0-25	4 -- 76-100	7 -- 151-175
2 -- 26-50	5 -- 101-125	8 -- 176-200
3 -- 51-75	6 -- 126-150	9 -- over 200

APPENDIX D

ORIGINAL OBSERVATIONS

ORIGINAL OBSERVATIONS

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// JOB T
// XEQ XLIST

     UNEMPLOYED - ANADARKO - STANDARD SCORES
10001 29 20 35 33 49 04 24 13 28 10 28 31 16 17 04 29 30 55
10002 62 60 59 69 66 59 44 38 39 59 47 49 44 58 52 68 70 44
10003 62 57 61 61 60 54 54 51 59 61 68 22 58 56 52 71 50 44
10004 23 28 09 22 31 24 42 43 54 31 47 13 38 46 08 39 73 65
10005 31 18 47 44 41 06 20 20 03 21 30 49 20 17 21 32 39 57
10006 56 44 47 38 55 51 54 56 51 42 52 58 58 34 39 43 41 55
10007 50 54 55 40 49 46 42 51 58 50 57 54 47 39 36 50 30 52
10008 46 49 55 48 60 29 46 47 41 33 42 45 49 34 45 46 44 55
10009 58 46 53 35 60 34 54 36 50 33 57 54 49 29 34 39 27 55
10010 31 33 33 31 44 26 44 36 36 25 35 58 36 20 28 32 27 55
10011 37 31 41 35 39 44 40 40 54 35 38 54 38 29 26 32 27 55
10012 35 46 51 59 58 44 30 22 41 33 45 35 36 51 41 54 59 37
10013 48 26 37 38 52 19 28 42 28 16 22 45 31 10 17 32 61 57
10014 40 28 47 38 49 36 34 35 47 35 53 35 40 65 32 43 41 44
10015 44 39 41 33 41 54 42 49 61 50 63 26 49 41 30 57 64 55
10016 48 41 49 40 49 46 40 42 61 42 65 49 62 48 30 46 41 49
10017 50 31 39 29 49 19 42 36 42 23 55 35 36 17 15 36 30 57
10018 25 52 53 57 55 41 32 40 43 27 48 22 38 37 43 46 33 49
10019 35 39 45 52 55 39 30 47 34 33 40 58 33 37 36 25 36 47
10020 35 28 41 40 36 24 18 38 47 19 42 35 40 25 34 39 27 44
10021 64 49 51 59 55 26 36 26 18 35 33 58 31 39 36 43 53 39
10022 50 46 55 55 66 44 48 51 45 38 50 63 42 37 43 39 44 44
10023 44 44 43 35 39 51 50 54 50 46 47 58 51 46 54 46 44 60
10024 39 28 37 46 44 29 26 31 39 31 38 49 29 39 26 46 44 57
10025 27 31 43 31 41 29 42 42 50 25 47 54 36 34 26 43 30 60
10026 46 49 61 42 52 61 44 56 61 61 65 54 62 48 45 57 47 62
10027 25 21 31 35 47 14 26 17 27 25 33 45 16 29 30 21 44 57
10028 56 49 61 69 55 29 42 28 30 23 40 31 29 41 41 54 61 65
10029 50 41 43 42 39 16 28 26 45 21 53 13 40 32 13 54 47 49
10030 56 49 53 40 47 49 38 28 46 42 57 49 49 41 26 54 41 52
10031 33 26 41 29 41 36 28 38 39 21 45 54 38 25 23 50 33 60
10032 33 18 27 27 33 16 16 36 39 21 43 40 20 22 06 39 39 49
10033 56 36 59 40 52 41 38 35 49 33 60 54 44 25 41 54 11 55
10034 40 33 29 38 39 34 38 31 42 31 50 00 33 44 21 50 59 57
10035 56 54 45 63 52 54 48 42 35 50 43 63 42 56 47 50 36 44
10036 42 41 33 48 47 34 36 43 51 35 52 17 38 37 13 61 61 60
10037 25 20 23 48 28 34 34 35 46 42 47 35 29 46 36 50 39 44
     UNEMPLOYED - ANADARKO - CPI - SCALE DATA
10001 16 08 17 25 19 19 18 16 15 04 07 21 12 05 18 05 02 18
10002 33 23 29 44 25 41 28 30 23 27 18 25 25 22 40 16 16 14
10003 33 22 30 40 23 39 33 37 38 28 31 19 31 21 40 17 09 14
10004 13 11 04 19 12 27 27 33 34 14 18 17 22 17 20 08 17 22
10005 17 07 23 31 16 20 16 20 10 09 08 25 14 05 26 06 05 19
10006 30 17 23 28 21 38 33 40 32 19 21 27 31 12 34 09 06 18
10007 27 21 27 29 19 35 27 37 37 23 24 26 26 14 33 11 02 17
10008 25 19 27 33 23 29 29 35 24 16 15 24 27 12 37 10 07 18
10009 31 18 26 26 23 31 33 29 31 15 24 26 27 10 32 08 01 18
10010 17 13 16 24 17 28 28 29 21 11 11 27 21 06 29 06 01 18
10011 20 12 20 26 15 35 26 31 34 16 13 26 22 10 28 06 01 18
10012 19 18 25 39 22 35 21 21 24 15 17 22 21 19 35 12 12 11
10013 26 10 18 28 20 25 20 33 15 07 03 24 19 02 24 06 13 19
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ORIGINAL OBSERVATIONS (CONTINUED)

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10014 27 11 23 28 19 32 23 28 29 16 22 22 23 25 31 09 06 14
10015 24 15 20 25 16 39 27 36 39 23 28 20 27 15 30 13 14 18
10016 26 16 24 29 19 36 26 33 39 19 29 25 33 18 30 10 06 16
10017 27 12 19 23 19 25 27 29 25 10 23 22 21 05 23 07 02 19
10018 14 20 26 38 21 34 22 31 26 12 19 19 22 13 36 10 03 16
10019 19 15 22 35 21 33 21 35 19 15 14 27 20 13 33 04 04 15
10020 19 11 20 29 14 27 15 30 29 08 15 22 23 08 32 08 01 14
10021 34 19 25 39 21 28 24 23 07 16 10 27 19 14 33 09 10 12
10022 27 18 27 37 25 35 30 37 27 17 20 28 24 13 36 08 07 14
10023 24 17 21 26 15 38 31 39 31 21 18 27 28 17 41 10 07 20
10024 21 11 18 32 17 29 19 26 23 14 13 25 18 14 28 10 07 19
10025 15 12 21 24 16 29 27 32 31 11 18 26 21 12 28 09 02 20
10026 25 19 30 30 20 42 28 40 39 28 29 26 33 18 37 13 08 21
10027 14 12 15 26 18 23 19 18 14 11 10 24 12 10 30 03 07 19
10028 30 19 30 44 21 29 27 24 16 10 14 21 18 15 35 12 13 22
10029 27 16 21 30 15 24 20 23 27 09 22 17 23 11 22 12 08 16
10030 30 19 26 29 18 37 25 24 28 19 24 25 27 15 28 12 06 17
10031 18 10 20 23 16 32 20 30 23 09 17 26 22 08 27 11 03 20
10032 18 07 13 22 13 24 14 29 23 09 1? 23 14 07 19 08 05 16
10033 30 14 29 29 20 34 25 28 30 15 26 26 25 08 35 12 00 18
10034 22 13 14 28 15 31 25 26 25 14 20 12 20 16 26 11 12 19
10035 30 21 22 41 20 39 30 32 20 23 16 28 24 21 38 11 04 14
10036 23 16 16 33 18 31 24 33 32 16 21 18 22 13 22 14 13 20
10037 14 08 11 33 11 31 23 28 28 19 18 22 18 17 33 11 05 14
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UNEMPLOYED - ANADARKO - LABOR FORCE DATA

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10021231601154408200051626001210800080(090900002200002202902000010409001 21
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ORIGINAL OBSERVATIONS(CONTINUED)

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10043421622112406130621221121110608080802100035211100221290200009130900122
     UNEMPLOYED - LAWTON - STANDARD SCORES
20001 48 54 29 37 47 36 38 40 54 44 60 00 38 68 26 57 76 55
20002 37 46 37 55 49 19 14 28 24 14 28 31 14 27 13 29 56 42
20003 54 31 49 42 44 06 20 33 30 21 32 35 29 25 17 39 47 49
20004 37 28 37 35 47 31 18 42 36 12 43 54 25 20 13 39 30 55
20005 25 36 39 42 60 14 24 35 38 33 52 00 29 37 28 57 44 60
20006 40 46 47 54 58 14 42 36 41 33 47 00 44 51 43 50 64 67
     UNEMPLOYED - LAWTON - CPI - SCALE DATA
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20002 20 10 18 37 19 25 13 24 12 06 07 21 11 09 22 05 11 13
20003 29 12 24 30 17 20 16 27 16 09 09 22 18 08 24 08 08 16
20004 20 11 18 26 18 30 15 32 21 05 16 26 16 06 22 08 02 18
20005 14 16 19 30 23 23 18 28 22 15 21 14 18 13 29 13 07 20
20006 22 18 23 36 22 23 27 29 24 15 18 13 25 19 36 11 14 23
     UNEMPLOYED - LAWTON - LABOR FORCE SURVEY
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20006251614124506130751321122210603030302050099083111222213200001080900121
20007192014122104200021226001120000000000307003080000021029020000102090011l
     UNEMPLOYED - WATONGA - STANDARD SCORES
30003 58 52 47 52 55 31 38 43 35 35 40 58 25 41 41 50 47 42
30004 40 33 49 33 33 06 32 49 51 27 53 45 44 20 28 50 33 52
30005 33 26 39 44 31 36 17 17 38 23 38 58 27 29 26 61 47 44
30006 27 23 19 38 39 36 28 15 42 27 38 40 14 32 17 39 39 47
30007 42 31 37 27 33 09 32 49 47 19 55 58 40 27 10 43 27 65
30008 58 54 51 55 58 44 42 40 36 48 37 63 47 46 56 39 36 44
30009 35 44 47 59 58 46 30 22 53 50 58 45 44 56 41 43 67 47
     UNEMPLOYED - WATONGA - CPI - SCALE DATA
30003 31 20 23 35 21 30 25 33 20 16 14 27 16 15 35 11 08 13
30004 22 13 24 25 13 20 22 36 32 12 22 24 25 06 29 11 03 17
30005 18 10 19 31 12 32 17 18 22 10 13 27 17 10 28 14 08 14
30006 15 09 09 28 15 32 20 17 25 12 13 23 11 11 24 08 05 15
30007 23 12 18 22 13 21 22 36 29 08 23 27 23 09 21 09 01 22
30008 31 21 25 37 22 35 27 31 21 22 12 28 26 17 42 08 04 14
30009 19 17 23 39 22 36 21 21 33 23 25 24 25 21 35 09 15 15
     UNEMPLOYED - WATONGA
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ORIGINAL OBSERVATIONS (CONTINUED)

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3000929202016260520002122122221040000000407000206910021116912410601080012 2
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EMPLOYED - SEQUOYAH MILLS - ANADARKO - STANDARD SCORES

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40001 27 41 37 50 44 36 30 22 53 35 48 31 38 37 28 61 56 49
40002 44 44 49 55 58 54 34 51 58 44 60 54 58 37 41 71 47 47
40003 46 46 49 52 52 54 36 56 53 29 53 58 47 37 41 50 50 52
40004 42 46 43 42 47 54 40 35 46 29 47 54 40 22 26 39 33 60
40005 44 39 47 38 55 34 38 49 42 35 43 58 47 32 32 39 30 39
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40007 62 57 55 52 66 46 38 42 46 44 52 63 31 46 43 46 47 57
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40009 33 20 39 33 41 21 38 28 35 27 37 35 22 32 17 36 39 37
40010 70 46 63 37 55 46 58 58 55 35 63 58 55 39 45 50 30 55
40011 31 26 25 31 49 14 34 40 27 19 22 63 25 37 19 25 61 52
40012 50 44 45 37 49 26 36 42 43 33 48 40 38 37 23 39 33 52
40013 60 54 57 65 66 61 50 40 43 54 43 54 53 53 45 57 41 44
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40015 52 26 45 37 55 09 30 28 38 25 48 00 18 22 21 36 56 47
40016 56 36 43 25 36 01 30 26 35 25 47 00 27 37 06 54 50 60
40017 19 18 45 37 28 41 34 35 47 21 48 31 25 27 30 29 50 57
40018 44 41 45 50 47 36 38 42 30 25 35 58 36 27 21 50 47 47
40019 46 41 49 38 58 56 54 47 54 33 52 40 53 39 32 36 36 60
40020 19 26 25 31 31 31 32 42 51 23 42 40 36 37 30 36 33 62
40021 33 41 37 25 47 00 26 40 34 31 43 04 27 39 15 29 53 49
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40039 37 46 45 27 49 39 46 42 61 38 58 40 55 44 34 50 36 57
40040 29 31 33 27 33 59 34 38 65 46 65 31 47 34 36 50 53 37
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EMPLOYED - SEQUOYAH MILLS - ANADARKO - CPI - SCALE DATA

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40003 25 18 24 35 20 39 24 40 33 13 22 27 26 13 35 11 09 17
40004 23 18 21 30 18 39 26 28 28 13 18 26 23 07 28 08 03 20
40005 24 15 23 28 21 31 25 36 25 16 16 27 26 11 31 08 02 12
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40007 33 22 27 35 25 36 25 32 28 20 21 28 19 17 36 10 08 19
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ORIGINAL OBSERVATIONS (CONTINUED)

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40039 20 18 22 22 19 33 29 32 39 17 25 23 30 16 32 11 04 19
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     EMPLOYED - ANADARKO - SEQUOYAH MILLS
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ORIGINAL OBSERVATIONS (CONTINUED)

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     EMPLOYED - SEQUOYAH MILLS - ELK CITY - STANDARD SCORES
50001 39 33 45 42 44 49 56 42 55 42 50 58 44 51 36 50 41 65
50002 42 44 57 57 60 19 30 31 34 31 47 49 40 34 30 39 33 70
50003 31 31 33 29 31 34 42 45 59 31 58 54 40 37 34 50 44 49
50004 37 44 29 46 44 46 44 45 63 52 58 54 49 60 45 61 67 60
     EMPLOYED - SEQUOYAH MILLS - ELK CITY - CPI SCORES
50001 21 13 22 30 17 37 34 32 35 19 20 27 25 19 33 11 06 22
50002 23 17 28 38 23 25 21 26 19 14 18 25 23 12 30 08 03 24
50003 17 12 16 23 12 31 27 34 38 14 25 26 23 13 32 11 07 16
50004 20 17 14 32 17 36 28 34 41 24 25 26 27 23 37 14 15 20
     EMPLOYED - BIA - ANADARKO - STANDARD SCORES
70001 58 26 55 27 41 46 36 42 54 40 50 54 42 39 30 50 36 52
70002 50 20 25 31 36 26 26 51 39 27 40 49 36 32 19 32 30 57
70003 58 65 67 61 52 61 60 54 51 63 63 49 64 56 60 57 53 39
70004 48 26 47 50 52 46 32 45 43 31 45 54 38 29 26 43 36 44
70005 52 52 43 42 49 54 60 56 62 48 58 63 66 46 45 64 30 57
70006 66 62 69 63 63 64 56 59 55 52 72 40 68 51 64 46 44 37
70007 23 23 33 25 39 29 36 49 47 33 45 54 29 37 19 46 41 57
70008 50 44 37 40 49 46 46 61 51 38 55 54 44 37 28 43 39 52
70009 56 41 41 42 55 29 48 47 26 35 37 54 42 44 39 46 53 57
70010 60 41 53 50 60 56 44 51 59 40 63 45 51 44 45 46 53 57
70011 25 31 31 50 39 41 30 42 45 31 33 49 27 48 36 50 44 52
70012 27 28 27 23 31 34 44 49 43 29 40 58 36 32 15 43 41 49
70013 35 26 37 44 39 46 42 51 43 44 33 54 31 41 34 57 67 55
70014 84 62 63 48 66 44 64 63 53 52 55 49 64 56 49 50 41 47
70015 52 54 47 57 60 51 44 52 47 61 43 58 53 60 54 50 53 52
70016 39 33 41 40 47 49 42 56 55 38 47 63 51 41 43 43 39 49
70017 39 54 27 44 44 49 42 56 57 48 45 40 36 51 36 57 64 42
70018 56 41 37 48 47 26 50 40 39 33 38 49 27 39 28 39 61 60
     EMPLOYED - BUREAU OF INDIAN AFFAIRS - ANADARKO - CPI - SCALE DATA
70001 31 10 27 22 16 36 24 32 34 18 20 26 24 14 30 11 04 17
70002 27 08 12 24 14 28 19 37 23 12 14 25 21 11 25 06 02 19
70003 31 25 33 40 20 42 36 39 32 29 28 25 34 21 44 13 10 12
70004 26 10 23 34 20 36 22 34 26 14 17 26 22 10 28 09 04 14
70005 28 20 21 30 19 39 36 40 40 22 25 28 35 17 37 15 02 19
70006 35 24 34 41 24 43 34 42 35 24 33 23 36 19 46 10 07 11
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ORIGINAL OBSERVATIONS (CONTINUED)

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70009 30 16 20 30 21 29 30 35 13 16 12 26 24 16 34 10 10 19
70010 32 16 26 34 23 40 28 37 38 18 28 24 28 16 37 10 10 19
70011 14 12 15 34 15 34 21 32 27 14 10 25 17 18 33 11 07 17
70012 15 11 13 20 12 31 28 36 26 13 14 27 21 11 23 09 06 16
70013 19 10 18 31 15 36 27 37 26 20 10 26 19 15 32 13 15 18
70014 44 24 31 33 25 35 38 44 33 24 23 25 34 21 39 11 06 15
70015 28 21 23 38 23 38 28 38 29 28 16 27 29 23 41 11 10 17
70016 21 13 20 29 18 37 27 40 35 17 18 28 28 15 36 09 05 16
70017 21 21 13 31 17 37 27 40 36 22 17 23 21 19 33 13 14 13
70018 30 16 18 33 18 28 31 31 23 15 13 25 17 14 29 08 13 20
     EMPLOYED - ANADARKO - BUREAU OF INDIAN AFFAIRS
700015508011012101316210160011110050100020403032091211111822000030309031 31
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700184077012262261330502211211126020202020403030711001122901181100610101 12
     EMPLOYED - BIA - CONCHO - STANDARD SCORES
80001 35 23 41 27 44 41 36 49 55 29 57 54 44 32 39 39 33 52
80002 50 46 47 52 52 46 54 47 57 50 47 63 66 53 52 54 36 37
80003 39 41 31 38 39 11 32 29 30 33 33 54 27 39 30 39 59 42
80004 37 28 41 31 47 16 28 40 46 21 38 45 27 20 19 36 33 55
80005 48 52 53 57 66 41 38 42 43 27 38 58 40 48 47 50 36 62
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80007 56 49 59 59 55 51 40 35 50 44 52 58 55 48 41 68 41 55
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80011 42 44 43 40 55 36 40 36 51 35 45 58 40 39 32 43 36 57
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80015 39 28 29 48 44 54 32 54 51 38 42 63 33 29 21 36 27 62
80016 54 39 49 40 52 39 34 56 50 38 45 45 42 29 36 54 27 49
80017 23 36 23 27 36 16 30 35 31 23 28 54 36 20 19 18 64 49
80018 27 44 39 52 58 11 22 33 18 27 28 54 25 32 10 36 64 47
80019 68 52 57 59 58 61 62 59 51 61 52 58 53 46 69 57 50 44
80020 56 41 49 54 58 59 40 49 43 50 42 45 47 32 39 54 36 55
80021 39 36 35 37 39 49 48 58 58 46 50 54 40 56 39 46 39 55
80022 33 23 29 25 28 54 40 47 62 35 60 35 49 44 21 39 41 65
     EMPLOYED - BUREAU OF INDIAN AFFAIRS - CONCHO - CPI - SCALE DATA
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ORIGINAL OBSERVATIONS (CONTINUED)

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80002 27 18 23 35 20 36 33 35 36 23 18 28 35 20 40 12 04 11
80003 21 16 15 28 15 22 22 25 16 15 10 26 17 14 30 08 12 13
80004 20 11 20 24 18 24 20 31 28 09 13 24 17 06 25 07 03 18
80005 26 20 26 38 25 34 25 32 26 12 13 27 23 18 38 11 04 21
80006 21 13 24 35 21 33 27 24 20 16 11 26 24 11 35 08 02 16
80007 30 19 29 39 21 38 26 28 31 20 21 27 30 18 35 16 06 18
80008 27 22 26 34 18 42 32 45 43 27 34 26 33 22 44 13 09 17
80009 26 19 26 37 22 35 24 29 21 15 14 27 23 17 35 07 09 14
80010 23 16 25 30 19 31 19 36 33 14 24 25 20 09 29 11 06 14
80011 23 17 21 29 21 32 26 29 32 16 17 27 23 14 31 09 04 19
80012 22 14 23 31 11 40 33 40 39 26 23 27 31 18 35 13 08 15
80013 34 28 30 41 23 41 36 32 32 25 26 26 30 20 47 13 14 22
80014 27 21 29 32 20 33 35 40 37 26 26 27 31 20 37 09 07 18
80015 21 11 14 33 17 39 22 39 32 17 15 28 20 10 26 07 01 21
80016 29 15 24 29 20 33 23 40 31 17 17 24 24 10 33 12 01 16
80017 13 14 11 22 14 24 21 28 17 10 07 26 21 06 25 02 14 16
80018 15 17 19 35 22 22 17 27 07 12 07 26 16 11 21 07 14 15
80019 36 20 28 39 22 42 37 42 32 28 21 27 29 17 48 13 09 14
80020 30 16 24 36 22 41 26 36 26 23 15 24 26 11 34 12 04 18
80021 21 14 17 27 15 37 30 41 37 21 20 26 23 21 34 10 05 18
80022 18 09 14 21 11 39 26 35 40 16 26 22 27 16 26 08 06 22

EMPLOYED - BUREAU OF INDIAN AFFAIRS - CONCHO

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