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ABSTRACT

The study examined differences in education-related attitudes between a group employed in a technologically and scientifically oriented manufacturing facility and a group from a job environment that reflected chronic unemployment, low skill requirements, terminal achievement levels, and poor opportunities for advancement. Questionnaires were administered to 80 employees (both tribal and nontribal) of the William Langer Jewel Bearing Plant and 52 household heads from the Turtle Mountain Indian Reservation (Chippewa). Basic areas covered by the questionnaire were educational aspiration, individual achievement, educational experience, work evaluation, educational influence, public interest, life environment, and background variables. An analysis of attendance of Turtle Mountain enrollees in colleges and universities and an analysis of Belcourt High School students' educational achievements considering their parents' occupational status were also conducted. With the exception of a few items such as the expectation of government aid for their children, an assessment that the costs of education were too high, and a basic interest in tribal affairs, a very similar distribution of response existed for the three target groups. Significant differences existed between groups in regard to specific situations which placed attitudinal constraints on the group, such as the availability of Bureau of Indian Affairs post-secondary education grants. (NQ)

FINAL REPORT

SURVEY OF EDUCATION RELATED ATTITUDES OF TRIBAL AND NON-TRIBAL WORKERS AT LANGER PLANT AT ROLLA, NORTH DAKOTA

National Institute of Education Project No. 3-1413

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SURVEY OF EDUCATION RELATED ATTITUDES OF TRIBAL AND NON-TRIBAL WORKERS AT LANGER PLANT AT ROLLA, NORTH DAKOTA

I. Introduction

Within recent years a great deal of research has been pursued in the area of educational and aspirational attitudes among minority groups and in particular the minority group of American Indians. Most of these studies have focused on educational attitudes and post-secondary aspirations of high school students of American Indian descent. These studies, focusing on "captive" populations, have attempted to identify and measure effect of ethnic traditions and value systems,[1] measure demand for Indian studies,[2] and determine self-concept and educational aspirations,[3] measure alienation and school dropout,[4] and also measure predisposition toward post-secondary education.[5] Other studies focused on the education-related attitudes of parents, testing such issues as criticism of BIA school programs,[6] and influence of the parent on post-secondary aspirations of students.[7] Other factors such as income were related to educational aspirations in other studies.[8]

This study attempts to add to the existing findings of the aforementioned studies. It focuses on a discovery and measurement of education-related attitudes in a particular labor environment that at the outset promised to reveal factors related to the expression of pro-educational positions and to behavioral indicators which register commitment to post-secondary education involvement.

The study was initiated on the assumption that an educational aspiration above the secondary level would be more frequently manifested in those familial environments where parents hold positive educational attitudes, and in particular, hold positive attitudes toward higher education. These attitudes would be accompanied by expectations of post-secondary educational attendance on the part of their own children and by commitments of their own resources to their children's education.

This assumption is not a new one. It is essential to a great many prior studies.

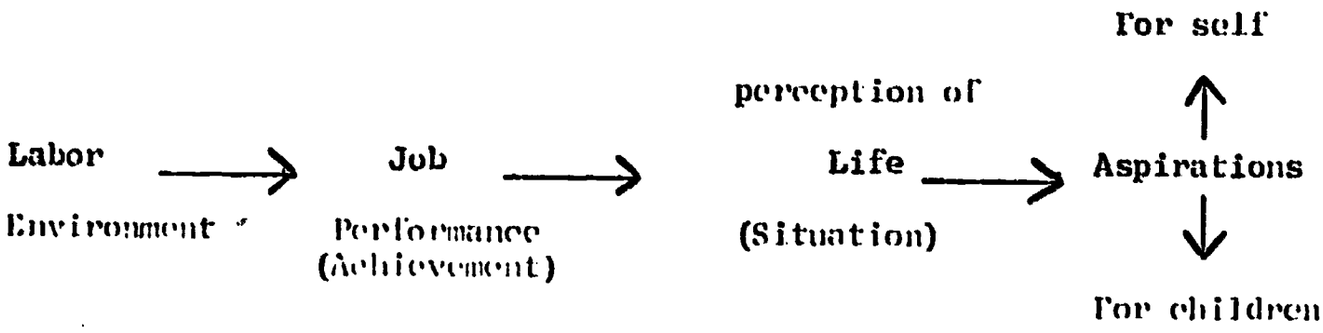
This study adds an additional assumption. Phrased as a hypothesis it indicates that more positively oriented education-related attitudes and behavioral indicators of educational progress and aspiration will both be associated with parental labor environments that manifest economic stability and worker satisfaction. Particular differentiation in the dependent variables (education-related attitudes and indicators of educational progress) is to be investigated where a labor environment exists which is unique in providing an attractive work program in the midst of a larger labor environment manifesting much less secure and less satisfying conditions. In particular it seeks to find differences in education-related attitudes between a group enjoying long-term employment in a technologically and scientifically oriented manufacturing facility with pleasant working conditions and a group which has had experience and continues to be involved in a job environment that reflects chronic unemployment, low skill requirements, terminal achievement levels and poor opportunities for advancement. If both groups happen to belong to a social and ethnic minority

that has experienced long term (generational) deprivation in terms of low status, economic privation, stifled opportunities and systematic alienation then the researcher has a laboratory situation which enables him to map the effect of the improved labor environment under the control of the minority group membership.

What is hypothesized is an influence that is carried through several stages. What we initially have to differentiate is a labor environment which itself contributes to the development of a certain occupational aspiration and achievement motives. That is the nature of the labor environment in terms of security of the position, the earnings and perquisites of the position, and the working conditions will ultimately have an effect upon the ultimate life-style aspirations of the individuals or families affected by a wage earner in that labor environment. Included in these life-system aspirations are expectations relative to mobility, home ownership, financial activity, social and community involvement and to plans for the education and future of children.

The labor environment and the particular work role that the person holds in that environment may also have an effect upon his aspirations. Holding a secure career position that involves a sense of purpose and importance of task that also contributes to self-actualization can be expected to contribute to the development of life style aspirations involving betterment of self and betterment of life situations for one's children. Again, this is to be reflected in education related attitudes.

The conceptual linkage involving influence between labor environment and various self perceptions and education related attitudes follows:



To accomplish the objective of this study the researchers conducted a survey aimed at extracting both education related attitudes and the intervening attitudes reflecting general achievement.

II. Setting of the Study

A laboratory situation was presented to the researchers in terms of a labor environment milieue existing on the Turtle Mountain Indian Reservation in North Dakota. The Reservation located in North-central North Dakota about 10 miles south of the Canadian border is home of the Turtle Mountain Chippewa Indian Tribe. The persons of Indian heritage residing on the reser on are of a mixed ancestry traceable to early French fur traders from Canada and to English Scotch and Irish roots as well as to the Chippewa tribe.

The tribal residents numbering some 7500 live within or closely adjacent to a small reservation area of 72 square miles (2 standard townships). A higher density of rural population is concentrated into an area that for most of the reservation is unsuitable for agriculture (low rolling heavily glaciated hills covered with small trees and brush and interspersed with many small lakes), has very little available industry and is isolated from any large towns. The community is isolated and even the shopping centers for the community are some 50 to 100 miles distant.

Of the tribal community some 1200 live in Belcourt, headquarters for the tribe, the Bureau of Indian Affairs and the Public Health Service. Only a few necessary businesses are located in the town.

Because of its economic and geographic isolation the Reservation community has for years and in fact for decades suffered under chronic unemployment. According to Wilson some 50 to 90 per cent of the Reservation residents are unemployed.[9] A Bureau of Indian Affairs

Report of the Labor Force taken in March, 1973[10] reveals that of a total resident Indian population of working age, 16 years or over, of some 2085 persons that constituted an available labor force (minus students, disabled and women for which no child care substitute were available), the employed totaled 1128 and unemployed 957. Of the 957 some 211 were engaged only in seasonal work. The ratio of employed to unemployed was more depressing for males. In an available labor force of 1194 persons, the employed total, 557, of which 144 had only seasonal employment. The unemployed constituted 637 or 53.3%.

These 1973 figures constitute an improvement over prior years. The major sources of employment for the residents have been:

1. United States Bureau of Indian Affairs (including a considerable number of seasonal positions /summer/ involving building and maintenance of roads).
2. Turtle Mountain Community School.
3. United States Public Health Service.
4. North Dakota Sanatorium at San Haven.
5. Farming.

In the past few years, however, employment opportunities have expanded in three areas:

1. Turtle Mountain Housing Authority (which has built or renovated some 440 dwellings on reservations in last four years).
2. Community Action Programs (various federal aid programs administered by tribe).
3. ABM construction (construction trades positions in construction of anti-ballistic sites being erected some 30 to 50 miles from reservation).

4) Electronic assembly. (MDS Atron has established an assembly plant to produce computer memory cores. A work force of 35--overwhelmingly female--is engaged in micro-wiring operations and testing).

The labor environment is basically a very depressing one. Chronic and seasonal employment and general poverty are the norm. Incidence of social problems among the families is high (alcoholism, divorce, family strife). The North Dakota Indian Affairs Commission reported in 1968 the following income profile for the families on the reservation.[11]

Earnings	# of families
Under $1,000	0
$1,000 - $1,999	277
$2,000 - $2,999	390
$3,000 - $4,999	520
$5,000 - $9,999	240
Over $10,000	25

Within the general labor environment the expectations of the researchers are that education and life aspirations will be diminished. There may be more cynicism about educational opportunities and chances for positions offering greater esteem.

Within the general labor environment there exists an enclave of labor opportunity providing a very dissimilar labor environment. In 1951 efforts were made to establish a skilled industry to provide employment for the American reservation community. The U.S. government in conjunction with the Bulova Watch Company constructed the Turtle Mountain Ordnance Plant (now named the William Langer Jewel Bearing Plant) and entered into contracts for the training of local personnel to operate the plant. The plant makes precision jewel bearings from ruby and sapphire material which are then shipped to defense

industry contractors as components in sophisticated electronic and mechanical hardware. The manufacturing process includes the reduction of ruby and sapphire rods to small blanks which are then drilled and polished to make completed jewel bearings. Tolerances as fine as 1/10,000 of an inch must be obtained. Final shaping and quality control are made under microscopic sights. The work environment, while not requiring the innovative and varied routine associated with scientific work, does present a laboratory atmosphere.

Work conditions at the plant are attractive. Work areas are well lit, comfortably air conditioned, and very clean. The work for many of the employees is exacting (drilling, polishing, inspecting). It requires dexterity and patience (applied under magnification) to produce useable products. Because of the exactitude of the production operations the vast majority of the line positions are filled by female personnel. Male personnel have difficulty in persisting in these routine but exacting operations without boredom, frustration or loss of dexterity. To maintain proficiency and employee morale a policy of working at one's own pace is followed. An employee has the option of structuring his own work breaks.

The management of the William Langer Plant puts stress on maintaining good employee relations. A liberal leave of absence policy is followed. Pay scales (see Appendix) are fair relative to wage offerings in the community. Health insurance and pension policies are also attractive.

This labor environment has been marked by employee satisfaction and career commitment. During the first few years of the plants operations, the enterprise was marked by considerable employee turnover,

absenteeism, and employee resignation. After about five years of operation the plant achieved a generally permanent labor force. Some of the employees have ten or more years experience at the plant. At the present time the managers of the plant report less than five per cent employee turnover per year which is less than that of most American industries.

At present some 60 per cent of the workers at the William Langer plant are of tribal heritage. In 1966 some 77 per cent of the employees were tribal. The ratio of tribal to non-tribal employee has declined in recent years. Local commentators have indicated that there would be a higher proportion of tribal workers had the basic decision located the plant on the Reservation or in Belcourt instead of in Rolla, some five miles away. Many of the reservations do not possess dependable transportation and this may be an inhibiting factor. No one reported any attempt to establish a shuttle bus line for such a purpose. A large number of females in the available labor force also do not have access to an independent source of transportation and are precluded from applying for positions.

III. Conduct of the Survey

The basic decision was to conduct a comparative survey involving a population of employees at the Langer plant and a control population of heads of households on the Turtle Mountain Reservation. Since the William Langer plant also employs non-tribal employees a decision was made to also administer the instrument to those employees of the enterprise. This permitted us to make comparisons between tribal and non-tribal groups and to furnish us with a control variable with the Langer employee group.

At the time that we contacted the management of the Langer plant some 87 persons were employed at the plant. The work force is somewhat larger at times but generally hovers at this level varying slightly with numbers of personnel on vacation or on leave of absence. The number of employees being under one hundred the decision was made to administer the instrument to the entire work force instead of relying upon a sample of each employee sub-group. In any case the problem of obtaining a representative sample where one's total universe has an N lower than 60 was overcome. In administering the instrument original intention was to obtain names of employees and arrange for interviews during non-working hours. This approach would have involved many weeks of time on the part of interviewers with uncertain prospects of success.

We were fortunate to obtain the cooperation of the management of the Langer plant to conduct the survey on the premises of the plant during plant operations. Permission was obtained allowing the researchers

to make a small group administration of the questionnaire during work breaks. Work breaks were extended for those taking the questionnaire. Four separate groups of approximately 20 each were administered the instrument in November. The time for administration of the instrument was 40 minutes. A five minute explanation was given prior to the administration of the instrument and respondents were instructed to address any questions about interpretation or meaning of the items to the interviewer at any time during the conduct of the inquiry. At each section the interviewer supplied a short explanatory introduction. Several respondents during each administration requested such clarification.

The next step was to extend the same inquiry to a Reservation Control Group. Certainly a Control Group as large as the non-tribal Langer employees was indicated (35), and the objective was to obtain as representative a group as we could in terms of occupational status and income levels.

Through the cooperative efforts of the Indian Culture Center at the University of North Dakota the researchers enlisted five students of tribal heritage all from the Turtle Mountain Indian Reservation to each conduct some 12 interviews in which the head of household would respond to the same inquiries that had been made to the Langer Plant employees. The five university students were led by one student who had considerable interview experience having conducted some 400 interviews in a study conducted at the Reservation the previous summer.

The five interviewers were able to complete their interviews during the Thanksgiving Day and Christmas vacations. The instructions to the interviewers who were briefed in two two-hour sessions are

included in an appendix. A random sampling of households based on a tribal listing would have the ideal in selecting respondents for the Control group. The chief limitation in this approach for us was the problem of finding selected respondents at home. This approach would have necessitated many call-backs.

It was then decided to rely upon a geographically based random sampling with the researchers and the team leader x'ing out a random pattern of township sections. Each interviewer was then to proceed from Belcourt on an artery leading to that section and stop at the first household on one's right in that section. To facilitate interviewing the study also relied upon a cluster technique. An interviewer could interview two or a maximum of three adjacent households. A map indicating the geographic distribution of control group respondents is included in the Appendix. A total of 50 interviews were taken of the control group.

Cooperation between student interviewers and respondents was good. Questionnaires were thoroughly filled out. Some seven respondents were not interested in being interviewed. As the interviewers indicated, these seven refusals came for the most part from unemployed welfare case household heads.

IV. The questionnaire

The basic areas touched by the finally agreed upon questionnaire involved:

A. Basic educational aspiration scales focusing primarily on aspiration to higher education.

B. Individual achievement measures.

C. An educational experience scale.

D. A work evaluation scale.

E. An educational influence scale.

F. A public interest scale.

G. A life environment scale.

H. Background variables.

H Basic Educational Aspiration Scales

The first education scale was one derived from the Standard Glassey Scale,[12] which is composed of 34 scaled items. The items selected for the abbreviated scale along with their standardized scale scores are as follows:

1.0 I am intensely interested in education.

1.2 Only educated people can live life to the full.

2.2 More money should be spent on education.

3.3 Education enables us to live a less monotonous life.

4.2 I am interested in education but think that one ought not to get concerned about it.

5.7 It is doubtful whether education has improved the world or not.

7.9 It is better for boys and girls to get jobs when they are 16 than continue school.

8.4 Education tends to make people snobs.

8.6 Too much money is spent on education.

8.9 I do not care about education as long as I can live comfortably.

10.9 I have no desire to have anything to do with education.

The selection of items was made to provide representative items from points all along the derived scale. In reviewing the results some improvement in selection could have been made. There is a slight bias toward inclusion of items toward the anti-education pole of the classic scale and results at least for these scale items revealed a strong pro-education response.

The next step was to test the utility of the abbreviated scale. It is important that significant numbers of the population under consideration exhibit disagreement on the selected items. The intention is to eliminate from consideration those items that do not manifest a 80/20 agreement/disagreement ratio. If we review the agreement ratios for all of the Glassey Scale we find the following results. Those items providing a discrimination level of better than 80/20 are to be regarded as having the highest validity and are asterisked.

		% Agree	% Disagree
* 1	Doubtful whether education has improved world or not.	32.2%	65.8%
2	Education tends to make people snobs.	11.6%	87.0%
* 3	I do not care about education as long as I can live comfortably.	21.2%	73.3%

		% Agree	% Disagree
* 4	Too much money is spent on education.	19.9%	78.8%
5	It is better for boys and girls to get jobs when 16.	5.5%	93.2%
* 6	Education enables one to lead a less monotonous life.	68.5%	27.4%
* 7	I am not interested in education but not too concerned about it.	32.9%	63.0%
8	Only educated people can enjoy life to the full.	14.3% (21)	83.5% (122)
9.	Education makes people forget their upbringing.	83.6%	14.4%
10.	I have no desire to do anything with education.	85.4% (124)	9.5% (14)

In addition, a scale was devised which was based on paired opposites. These particular items were oriented toward an isolation of either positive or negative attitude toward statements favoring a continuation of education to higher levels. The use of items aimed at the same situation expressed positive and negative term and should serve as a test of respondent consistency.[13] With a pair of opposites a respondent manifesting consistency should indicate an agree answer and a disagree answer on its opposite.

An annotated presentation of the instrument follows:

1A. Most high school students have too easy a time of it and do not learn to do real work. (+ Ed. response: agree)

1B. Most high school students are worked too hard in school and should be relieved of it. (+ Ed. response: disagree)

2A. It doesn't hurt a person to attend college even if he doesn't use all he learns. (+ Ed. response: agree)

2B. College doesn't teach a person those skills that are useful. (+ Ed. response: disagree)

3A. The more satisfied people are those that have become successful on their own. (+ Ed. response: disagree)

3B. The more satisfied people are those that have a good deal of schooling. (+ Ed. response: agree)
(The first item of the pair is probably not explicit enough to suggest that the more successful people are those without a higher education. The simple addition of the words "without a higher education" would have removed ambiguity in interpretation.)

4A. The costs of higher education are not excessive for what people get back. (+ Ed. response: agree)

4B. The costs of higher education are too much for what people get back. (+ Ed. response: disagree)
(This pair is inoperative as a pairing due to a typographical error in the printing of the instrument which typed both of the items with the identical wording. The single item, however, is still useable on its own merits.)

5A. College gives our sons and daughters an opportunity to go away from here and make a better life. (+ Ed. response: agree)

5B. Sons and daughters who go to college go away from their families and their communities. (+ Ed. response: disagree
(This pair of items tests parental expression for social and economic mobility of progeny. It was anticipated that it would be a discrimination between respondents

with aspirations of mobility and respondents stressing preserving strong family and kinship ties and still exist in a reservation setting.)

6A. Almost everybody can get something from our education. (+ Ed. response: agree)

6B. Education is all right for some people but not for everybody. (+ Ed. response: disagree)

7A. Education is necessary to get someplace in the community. (+ Ed. response: agree)

7B. Education is important only if one plans to live away from the community. (+ Ed. response: disagree)

8A. Most young people are getting too much of an education. (+ Ed. response: disagree)

8B. Most young people do not realize what education can do for them. (+ Ed. response: agree)

In assessing each respondent's reactions all items were first registered in terms of agreement or disagreement. For purposes of analysis each response was then translated into + or - education responses on the basis of the translating protocol given above.

		% Agree	% Disagree
* 1DA	Most high school students have easy time.	59.8%	39.0%
2DA	Most high school students worked too hard.	4.1%	93.8%
* 2A	It doesn't hurt a person to attend college even if he doesn't use all he learns.	75.3%	24.0%
2B	College doesn't teach a person those skills that are useful.	15.1%	82.9%

		% Agree	% Disagree
* 3A	The more satisfied people are those that have become successful on their own.	58.2%	40.4%
* 3B	The more satisfied people are those that have had a good deal of schooling.	31.5%	67.1%
* 4A	The costs of education are too much for what people get back.	21.9%	76.0%
* 5A	College gives sons and daughters an opportunity to go away from here and make a better life.	58.9%	40.4%
* 5B	Sons and daughters go away from the families and their communities.	29.5%	68.5%
6A	Almost everybody can get something from an education.	90.4%	8.2%
* 6B	Education is all right for some people but not everybody.	69.9%	28.8%
* 7A	Education is necessary to get someplace in the community.	56.2%	43.2%
7B	Education is important only if one plans to live away from the community.	12.3%	85.6%
8A	Young people getting too much of an education.	4.8%	93.7%
8B	Young people do not realize what education can do for them.	80.8%	17.8%

B. Basic Individual Achievements Measures

One of the key questions probed by this survey was whether members of each target group exhibited a differential response in terms of the projection of both educational opportunities and occupational achievements for their children. This was to be indicated in a series of both open-ended and closed questions.

The first question was a closed ended question probing the parent's perceptions of their children's performance in school. The question was:

1. Generally speaking, how do you believe your children are doing in school?
   A. Very well
   B. Satisfactory
   C. Fairly satisfactory
   D. Not satisfactory

This particular question did not provide the discriminatory information that was anticipated. The positive cast of the question impelled respondents to answer in the direction of the positive pole. In fact, not one respondent admitted to their children not doing satisfactorily. For any analytic discrimination this dictates that a dichotomy be drawn.

It would appear that to discriminate between the respondents in terms of providing valid evaluations of their children's progress

vis-a-vis other children would be to focus on negative and clear indicators. Examples are given below.

1. Have any of your children dropped out of school before completing the 12th grade?
2. Have any of your children been held back a year in school? How many?

If we could assume honesty in responding we could then have isolated those families where progress is not normal and have approached the issue.

In addition, we asked parents what plans their children were making toward their future life, what plans they themselves were making for their children and also whether they expected their children to attend college. This was a critical question.

Finally, the respondents were asked how their children could afford higher education. Through:

(1) parents assistance.

(2) part-time work.

(3) government aid.

(4) scholarships.

Particular attention was to be directed to the incidence of expectations of parental assistance among the selected target groups. The response on part-time work also measures the extent to which each group considers the contributions of the students themselves to their education.

In the interest of time in the administration of the instrument parents were asked what work their children would be doing after they grew up. A checklist such as the NORC listing of 100 occupational aspiration surveys would have been preferred but the perusal of such a list would have required from 15-20 minutes alone. The important point was whether they had aspirations for their children in prestige occupations (1) professional, (4) scientific work, (3) teaching, (2) businessman, or in standard occupations (6) farming, (7) technical work, machine operation, mechanic or (8) military service and (9) service occupations. Finally, they were given the option of indicating "picking up what they can," a measure indicating least projected aspirations.

The open-ended questions provided a problem. It was common for parents to have no plans for their children's future. In many instances the respondents indicated that their children were too young to have any plans and too young for any plans to be made for them. The question may be too general. They may also find applicability with a narrow range of respondents, those with children past the 10th grade. It may be only at that stage that projected aspirations manifest themselves.

A review of the questionnaire also revealed a misunderstanding by a considerable number of respondents whose children had attained adult status. A number of these persons once they had indicated their children were "grown up" or "moved away" did not feel obligated to complete those questions dealing with plans or with the occupations held by their children. Admittedly the sample for comparing the subgroups is very small (5 among Bulova workers--tribal heritage; 4 among

Bulova workers--white; and 8 among the Reservation Control group. A companion of the total parent category having adult children would have provided at least an indication of whether a long work experience at the Bulova plant and the more stable economic environment that could be expected from such work career would result in occupational choices reflecting higher achievement and aspiration. Of the two respondents in the Bulova-tribal employee category who did furnish information on this item, the occupation listed was having own business and teaching, and of the Langer non-tribal the three occupational achievements were mechanic (2) and service occupation (1). For the Reservation Control group, four of the eight indicated the occupational positions of their children. These included professions (1) technical mechanic, (2) service, (?) picking up what they can. Part of the problem of obtaining full information on this item may be linked to the perception of female children; terminal career. They are simply seen as "married."

B. Individual Achievement Measures

The basic Individual Achievement Measures are derived from several sources within the instrument. They include a few open-ended questions which are chosen with the precise aim of the study in mind and also include the so-called ladder ratings devised by F. P. Kilpatrick and Hadley Cantrill.[10]

The open-ended question focusing on individual achievement was "What improvements in your life and home have you experienced

in the last five years?" Interviewers were instructed to clarify this item if the respondents encountered difficulty in understanding the question with the statement that they should compare their jobs, education, financial status, home or family situation in considering their answer. In reviewing the question results after the administration of the instrument of the instrument some post-hoc criticism must be applied to the question. The interjection of the word "home" might have served as a somewhat blatant cue directing the respondent to view his achievements in domicilary terms (as indicated by the great number of responses oriented to new home occupancy). However, the pace of home building in the community was quite dramatic and reflected the greatest change in the community environment. It is also seen in rural areas as the ultimate symbol of personal progress.

The other measure of personal achievement is provided in the ladder ratings devised by F. P. Kilpatrick and Hadley Cantril. Respondents were instructed: "Here is a ladder of life. Let's suppose the top of the ladder represents the best possible life for you, and the bottom the worst possible life for you. On which step of the ladder do you feel you stand at the present time in terms of your own personal happiness and satisfaction?"

They were then told to deal with the second ladder down on the page and asked:

"On which step would you say you stood five years ago?" They were then told to deal with a third ladder and asked:

"Just as your best guess, on which step do you think you will stand in the future, say about five years from now?"

An additional question was added to the standard Cantril group testing projection of achievement for their children.

"Just as a best guess, which steps do you think your children will stand on in the future, say about 10 to 15 years from now?"

The Cantril Measures produce interesting differences between individual respondents and it is precisely this variation which is subject to different interpretation. The perception of one's position on a ladder of accomplishment and achievement may rest upon a calculus of personal and individual factors (e.g., job opportunity, promotional opportunities, personal satisfaction, family stability, health) or may rest upon a calculus of external and environmental considerations (sense of national progress, economic projections or fluctuations, general assessment of the quality of life, community stability and social conditions). The Cantril Measures have in the past been utilized as general assessments of one's personal situation in which each respondent defined his own scale of values from best to worst (thus "self-anchoring" his scale). Some control in the Cantril format was provided through separate questions focusing on personal happiness and satisfaction (applied in our basic instruction) and in questions and ones fears and worries about the future of the country.

It is interesting to note that the surveys which have been made using this instrument have involved large national samples of the population (e.g., 1400). While there might be wide variation in scores due to personal circumstances (financial setbacks, personal disappointments, marital problems, familial problems) large samples of selected

sub-groups could be compared. The individual deviations at each end of the distribution could cancel each other out.

In this particular study the sub-group samples are quite small and a large standard deviation can be expected on the basis of particularized life and family situations.

C. Educational Experience Scale

The Education Experience Scale was originally intended to serve as a control on responses measuring educational predispositions (positive or negative responses toward education on scales A or B, open-ended responses favoring educational achievement of children, etc.). That is, high cumulative scores on either educational scale or on those items shown to be discriminators might not be a reflection of the basic population trichotomy but might be a function of the respondents' own educational experiences. Favorable predispositions toward education would be a function of rewarding experiences in the educational system. The following questions were included, each of which required an agree/disagree response.

1. I enjoyed my years in school.
2. There were useful things about school but time was still wasted.
3. I would have enjoyed school had teachers better understood me.
4. I would have liked to continue my education.
5. School opened up my mind to different ideas--different life.
6. I would have enjoyed school but subjects were not interesting.
7. School was boring to me.
8. School interfered with my getting a job.
9. School assisted me in getting a job.

10) School assisted me in dealing with people on the outside. The items of this question set are also subject to the criteria of acceptance when an agreement/disagreement ratio of more than 80/20 is found. The review of the responses for this particular question set show the following pattern.

		% Agree	% Disagree
1.	I enjoyed my years in school	136 (93.2%)	10 (6.8%)
2.	Useful things about school but time was still wasted.	64 (43.8%)	80 (54.8%)
3.	I would have enjoyed school had teachers better understood me.	60 (41.1%)	83 (56.8%)
4.	I would have liked to continue my education.	82 (56.2%)	60 (41.1%)
5.	School opened my mind to different ideas--different life.	117 (80.1%)	25 (17.1%)
6.	I would have enjoyed school but subjects weren't interesting.	121 (82.9%)	20 (13.7%)
7.	School was boring to me.	5 (3.5%)	138 (96.5%)
8.	School interfered with my getting a job.	10 (6.8%)	133 (91.1%)
9.	School assisted me in getting a job.	33 (22.6%)	109 (74.7%)
10.	School assisted me in dealing with people on the outside	114 (78.1%)	27 (18.5%)

This particular question set appears for most of its questions to involve a response set, extracting one-sided response patterns.

Part of the explanation may lie in the fact that the questions are personally addressed--even though the respondents remain anonymous. The questions touched on their own personal educational history. A great many of the respondents also may have attempted to fulfill what they perceived to be tester expectations. The interviewers knew

that the instrument attempted to measure educational attitudes and they have been motivated by a predisposition to put forward the best pro-education profile and also present their identified sub-group in the best possible light. While the question set did not appear to provide sufficient discrimination individual items did show a differential response (items 2, 3, 4) and will be analyzed.

As a whole, the question set revealed a general pre-disposition toward rewarding educational experiences. Of the total number of respondents the distribution of education experience scores is as follows.

OVERALL RESPONSE TO EDUCATION EXPERIENCE SCALE

	Scale Scores									
No response	1	2	3	4	5	6	7	8	9	10
N = 7	1	2	6	3	3	13	23	26	36	26
% 4.8	.7	1.4	4.1	2	2	8.9	15.8	17.8	24.7	17.8

The lower scores (below 5) generally reflect partial response patterns (respondents who preferred to answer 2 or 3 of the questions leaving out a response to most questions). Either they found the questions too personal or found them ambiguous or difficult to properly evaluate.

As one can see, 60.3% chose to respond with no more than some two unfavorable education experience responses for the set. However, there is a small group of some 8 respondents that generally exhibited a consistent pattern of educational attitudes that reflected both unfavorable educational experience and lukewarm response to educational indulgence. This is revealed in a series of moderate correlations for certain items in different question sets.

D. Work Evaluation Scale

The work evaluation scale which is also a virgin scale simply asked the respondent to rank from one to five these five things that a person considered most important to him in a job. These five elements were selected from a list of 15 elements that included:

(A) top people who respect employees as a person.

(B) understanding between employer and workers.

(C) people at top pay enough attention to effort.

(D) duties you can do at own pace.

(E) clean and healthy work area.

(F) good insurance and sick leave policy.

(G) good pay.

(H) chance to train and study.

(I) vacation policy is good.

(J) promotions, changes of jobs.

(K) interesting work.

(L) security.

The object of the scale was to determine whether the Langer plant personnel manifested an orientation to long term benefits of their occupational positions and to job prerequisites reflecting career commitment, job pride, and social pride.

E. Educational Influence Scale

The Educational Influence Scale is a set of items asking the respondent to identify those social sets who expressed an interest in the respondent's education. The respondent was to also provide a scaled response on whether the social set expressed (1) considerable

interest, (2) some interest, (3) very little interest, or (4) no interest. The social sets incorporated into the scale included (1) immediate family, (2) relatives, (3) friends and neighbors, (4) the community, (5) school teachers and officials, (6) previous employer, (7) recent employer and (8) co-workers.

The object of this scale was to determine whether in the instance of a group exhibiting significantly higher achievement or education aspiration levels would identify an intensity of interest by other social sets and also show an association between particular social sets and the higher aspiration and achievement measures.

F. Public Interest Scale

In addition, the questionnaire included a public interest scale. Respondents were asked whether they expressed interest in the following areas of public affairs:

1. community affairs.
2. local school affairs.
3. local news.
4. national news.
5. tribal affairs.

The respondents were further asked to scale their responses in a four point scale registering (1) considerable interest, (2) some interest, (3) very little interest, and (4) no interest.

In addition the set was closed with an open-ended question asking the respondent whether his interest had increased in any of the areas and in particular which area.

The open ended question provides as an additional discriminator where respondents may follow a response set in registering the same intensity of interest for all areas of public affairs.

G. Life Environments Scales

The Life Environments scale is a simple question set which required each respondent to rate those amenities which he considered important to his chosen place of residence. The amenities were to be rated in a four point scale as: Very Important, Important, Somewhat Important, or Not Important. The following represents an annotated listing of the items.

1. Being near to one's family -

   This was an item testing predisposition to mobility. The extended family is implied. The word "relatives" would have been more explicit and might have improved the validity of the term as it applied to the Reservation Control group.

2. Being near to one's people (ethnic group) -

   This was an item again testing predisposition to mobility and an item measuring the importance of tribal affinities for an enrolled tribal member. The question is phrased in a way to elicit consideration of the same amenity by non-tribal respondents.

3. Good schools -

   This item in keeping with the objective of the study measures orientation to education and high aspirations for children.

(4) Many job opportunities.

A largely self-explanatory item.

(5) Cultural opportunities.

Interviewers were instructed to elaborate on this item for respondents if they did not know what this meant. (Actually several of the reservation control group ranked this as important with the understanding that an important part of the living environment was an opportunity to learn and participate in some traditional Indian cultural activities.)

(6) Benefits of city life.

Another item measuring predisposition toward mobility. The word city denotes larger populations, greater availability of consumer goods, greater leisure facilities.

(7) Being nearer institutions of higher learning.

Another item measuring predisposition to education and projection of educational opportunity for children.

(8) Technical job opportunities.

This item is intended to be a measure of occupational discrimination and indicate preference for skilled labor opportunities over unskilled or semi-skilled or service occupations.

(9) Scenic land, unspoiled environment.

This item measures the importance of the recreational amenity. However, in the context of this study it can also measure affinity for the largely rural environment in which the respondents currently live.

(10) Good people, low crime rate.

This item includes an amenity which is held to be of increasing importance.

Since the construction of the scales permitted any respondent MAXIMAL skewing (rating all amenities Very Important) and making no discrimination between them, a clarifier was introduced asking the respondent to indicate the two amenities he thought most important of all. In coding the first one listed was indicated as the Most Important amenity.

One particular item could have been useful in this section. This was an item focusing on environmental preference suggested unfortunately after the survey had been completed. This was the item utilized by Dr. Al Koss in his survey of high school students in the Turtle Mountain Reservation.[15]

"Where would you like to live and work?" (when you have completed your education or training.)

(1) In a city over 10,000 population

(2) In a city under 10,000 population

(3) On a farm

(4) On a reservation.

This item applied to these respondents would have measured the respondents' psychological reception to job and career mobility and in particular would have tested the tribal respondents' attachment to their traditional environment.

II. Background Variables

The questionnaire also elicited data on a number of background characteristics to be considered as independent variables in the study. The key background variable is the labor environments variable which characterize the respondents into one of three groups: Langer, non-tribal employee, Langer tribal employee and a Reservation control group. Actually the labor environment variable is a hybrid variable involving two other variables: Langer Plant employment and tribal heritage. These two variables are to be considered in their own right and are employed as control variables throughout the study. Where a heightened effect is observed in both the Langer tribal and non-tribal groups and not in the Reservation control group the effect can be inferred to be attributable to the plant employment variable. Similarly when an effect manifests itself to a similar degree among the Langer tribal employees and the Reservation Control group and not among the Langer non-tribal group the tribal variable influence can be suspected.

Incidentally, the tribal heritage variable involved a self-assessment on the part of the respondent. It did not elicit any defensive or negative reaction on the part of any respondent. As a concept it stresses cultural and family background rather than any racial categorization and also enabled respondents of mixed and diminished tribal heritage to relate to the item. Those of diminished heritage (½ ancestry) have generally suffered the same economic and job deprivation as those of full ancestry.

Sex is another obvious background variable. In this study particular care must be taken in interpreting any results showing a discrimination in responses between the Langer plant group and the Community Control group. The great majority of the Langer plant employees are women (74%) while only 56% of the Control groups respondents are women. Control by sex is cautioned where respondent distinctions are discovered which are attributable to the Labor environment variables. One must also test for the effect of the sex variable on educational achievement indicators. Two possible explanations are: more involvement of mothers in the educational process through their children and a tendency for females to have progressed further in their basic education than males.

Educational level of each respondent was also registered and is a critical background variable. Since the questionnaire deals with the measurement of various favorable responses to more and higher education, analytic controls must be extended to the results by means of a control by level of education. Respondents were asked their highest level of education (ranging from 1st grade to college). For purposes of the analysis this information was reduced to four categories: eighth grade or below; ninth and tenth grade; 11th and 12th grade, and some college or post-secondary education. Some 13 respondents are in the first category, 26 in the second, 67 in the third and 38 in the fourth category.

In reviewing the distribution researchers now realize that a more appropriate division among respondents could have been made between ninth, tenth and eleventh grade level respondents in one category and those completing high school in another. Some 21 respondents in category

three had a maximum of 11 years of education and did not complete their high school work. This more appropriate division of educational level respondents was pursued too late to incorporate into this study but will be followed in refinements of the present findings.

A problem exists in terms of the educational level article. A disproportionate number of level four respondents were chosen for the Reservation Control group. (See background profiles.) However, control is exerted in many instances by making comparisons between the selected target groups (categorized on the labor environment variable) with all level four respondents removed from the analysis or considered by themselves for analysis.

Other background information was elicited on age and length of service at the Langer plant. In considering age as a control variable discrete age categories were established for five year increments. Length of service at the Langer plant was also coded into discrete increments of service: ten or more years of service; less than ten years of service but more than seven years; less than seven years but more than four years: less than four years but more than one year of service; and less than one year of employment. Many of the employees have been in the operation for more than 18 years. The large sub-group having ten or more years of employment provides a unique test of propositions that involve the assumption that long service in a labor institution involves socialization to predicted attitudes.

Number of children and their school levels are also indicated. Pre-school status, primary grade school, upper grade school, high school, college, and adult levels are indicated. While parental

concern and interest in educational issues may be constant over a parental career, we must also consider the possibility that parental concern rises generally during specific periods in the child's educational process (e.g., in the primary process). This may, in fact, be a more critical variable than any labor environment variable.

Background information was also elicited on the occupation of the respondent and the occupation of the spouse. This is a particularly critical variable in assessing responses of the Reservation Control group. This enables the researcher to distinguish between the responses of unemployed, partially employed and low prestige occupations (labour) and those who have held more secure positions. Distinctions can also be drawn between blue collar and white collar respondents.

The researchers relied upon an occupational status variable as a control on economic status rather than upon a self-reported income. (e.g., check how much your family made this year.) This type of item was regarded as an over sensitizing item which would generate a more negative and non-participating reaction to the interview situation. It could too easily be viewed as an invasion of privacy. More reliance was placed in finding out what the respondent's employment status was and whether both parents worked.

V. The Background Profiles

The basic comparisons to be pursued in this study focus on the three basic sub-groups identified in the population studied: the employees of the William Langer plant of tribal heritage, the workers at the same plant who are not identified with the tribe and who are comprised as white residents of the community, and a control group of tribally identified persons living in or adjacent to the Turtle Mountain Reservation.

The three groups do not constitute homogenous samplings in regard to other background variables and it is appropriate to establish the differences between each employment sub-group to permit any observed differences between the three control groups to be controlled for the effect by the second independent variable. Differences between the three groups are to be noted for the variables of sex, marital status, age, and education level. For the purpose a basic profile of each group is given below.

A. William Langer Employees: Tribal

At the time the questionnaires were administered 52 employees with a self-identification of tribal heritage were available for questions. It is predominately a female group with 45 females and 7 males. This is to be expected. The majority of the positions available are line positions involving painstaking eye work and dexterous manipulations under high magnification. The work demands steadiness, patience, and long term persistence. These positions are not especially attractive to males, even those with mechanical aptitudes and the production line work is left to female employees. The males occupy positions dealing

with machine installation, maintenance, and repair, and with building operation.

Forty-four of the group are married. Eight are not married, and the age-profile reveals 23 to be in the 20-35 range, 21 to be 36-50 and eight to be 51 or older. The eight older workers comprise 15.5 of this sub-group and indicate a higher percentage for this subgroup than the others. The work group includes a substantial number with considerable tenure in their positions with 18 persons having more than 15 years experience. Seven persons have 20 years experience. An additional four have 19 years experience. They represent a firm core of employees who have worked with the enterprise from its inception. The survey also indicates that a significant number of the employees are the principal wage earners for their families. Five left the spouse's occupation item blank (while filling in all other items) and the indication is that the male spouses are unemployed. One indicated a disabled husband. Spouse's occupations for women employees are further categorized as six laborers, four janitorial workers, six in the building trades (carpenter, electrician helper, painter), two mechanics, three drivers, five mechanics and machine operators, and two security guards. Three spouses work at the Langer plant and a few miscellaneous positions are held by spouses of this group (well driller, heavy equipment operator, store manager). Many of the positions indicated reflect only part-time or itinerant employment. For most of the employees the employment of the spouse is in semi-skilled and blue collar positions involving seasonal employment.

Since interest in educational achievement may be directly dependent on the presence of children and the maturation levels of these

children the profile of the tribal employees reveals a heterogeneous family pattern with almost every family configuration represented from single members and childless couples to families with ten children. Eleven have no children, six have one child, fourteen have two children, three have three, six have four and 12 have five or more children. Nineteen of the 52 employees have pre-school children, 12 have children in the primary grades, 17 have children in higher elementary grades, 15 have children in high school, ten have children in college and five had children out of school (married).

The sub-group has a considerable number of persons whose educational concerns for their children may be immaterial or premature. The eleven having no children and the eight employees having only pre-school children represent a considerable bloc of individuals who have not had any occasion to consider the direction or implication of their children's educational progress.

B. William Langer Plant: Non-Tribal Employees

The William Langer plant employes 35 employees who did not identify themselves with the tribal residence or background. A higher proportion of these groups are males (15 out of the 35). This group also furnishes six of the eight supervisory (foremen) positions at the plant. Twenty-eight of the group are married, seven are not. The age profile is similar with a similar percentage (40%) in the 36-50 year old category but with a higher percentage (57%) in the 20-35 year old category. In job experience categories the two groups are not that unlike. There is also a core comprising almost half of the group (17 or 48%) who have worked at the plant for ten years or more.

The review of spouse's occupation reveals again a pattern of working couples with male spouses engaged in a variety of blue collar and farming occupations, and a few in white collar occupations. The breakdown is: teacher 3, farmer 3, heavy equipment operator, clerk 3, truck driver, carpenter, cement finisher and laborer. Three wives have husbands also working at the Langer plant. One female worker is married to a local businessman. Female spouses are generally housewives. The pattern is of lower middle class occupational status. This group is also characterized as having fewer children per family. The distribution for family size is given below.

Number of Children

	None	1	2	3	4	5 or more
Number of Respondents	7	7	10	4	2	5

C. The Reservation Control Group

Using a random geographical clustering technique, a total of some 59 heads of households of tribal affiliation were administered the instrument by the five interviewers who were native to the region. The aim was to obtain a sampling of reservation households that would be representative of the families of the Turtle Mountain Reservation. From a review of the background information developed from the survey, it appears that this objective may not be met. The breakdown of respondents in regard to basic background variables of sex, age, and marital status is as follows.

Male	Female
26 (44%)	33 (56%)
Married	**Unmarried**
46 (78%)	(22%)

Age Group

20-35	36-50	51 and up
33 (56%)	20 (34%)	6 (10%)

One important characteristic of this sub-group is the high proportion of large families that is included in the sample. The distribution given below gives the number of children for respondents.

Number of Children

	None	1	2	3	4	5 or more
Number of Respondents	7	9	12	3	5	23

(The 23 respondents comprise some 39% of the sample.)

In noting the employment profile of this group there were ten respondents who were unemployed, five who indicated they were engaged in part-time work (seasonal construction, road work) one was a PHS employee (registered nurse with unemployed husband), five were in education (teaching), and 28 who categorized themselves in white collar occupations. The great bulk of these positions are in three areas: BIA, Community Action and Tribal Project positions (11), Education (9), and secretarial positions (4). The U. S. government is the largest employee of reservation personnel.

The true nature of the sample is revealed only when one looks at the occupational pairings of respondents and spouses for the sample; that is, the occupations of both members of the family team. They reveal twenty-one male spouses whose occupation is blue collar (six laborers, carpenters, road workers, a warehouseman, a construction aide, a sanitation worker, mechanic, well driller, cement finisher, apprentice electrician, heavy equipment operator and several welders). The predominance of the construction trades reflects the increased openings in this field within the past three years because of anti-ballistic missile site construction in the nearby area. The Adult Vocational Training Division of Employment assistance indicates that in 1970, 192 reservation enrollees were directly employed on ABM sites; in 1971, 651 were so employed; and in 1972 there were 704 so employed. This represents an unprecedented improvement in the employment situation.

There were nine male spouses who were in white collar positions (draftsman, worker at community home, student activities assistant, tribal planner, and various persons involved with tribal and federally funded community action programs. The general availability of these white collar positions has generally occurred with the proliferation of federal programs.

The Reservation Control group also revealed the basic instability of the male employment situation. Eight of the female respondents reported husbands who were unemployed. These included two students whose husbands were neither employed nor students, two secretaries, two "agency" workers, one factory worker (MDS Atron), and an elementary school teacher. The six "laborers" recorded above for the blue collar

category can be assumed to be itinerant workers. The sample appears to be representative of the agency employment environment in this respect.

One background variable, that of education, presented some problems for the analyst. Of the 59 Reservation members, 25 members were reported to have had some education above the 12th grade level. This is a very high proportion, much more than might be anticipated in the random sampling. The responses, however, are not to be interpreted as 25 respondents who completed college programs or who did substantial work beyond the high school diploma. Clues as to the representativeness of the same is indicated in the detailed comments included by many of the respondents. These comments indicated that for most college training was minimal and terminal. The majority had one year or less.* Several had trade school records, some indicated United Tribes (a vocational training and social rehabilitation program operating in Bismarck, ND), several had secretarial training, and several had short courses which qualified them to be teacher aides. Three were students, and only three of the twenty-five had education levels indicating completed degree programs: two elementary school teachers and one registered nurse. There were also three individuals who indicated their post-high school education as Adult Vocational Training (work courses in welding, carpentry).

It was also indicated that one interviewer (identified here as Interviewer D) included a disproportionate number of respondents in his sampling with educational levels higher than 12 years. It appeared that he made a special effort to include in his sampling those who had

*Some three respondents indicated precisely the number of credits they had earned.

some college education and congruently who had an occupational position of some status with either a federal or tribal institution.

To eliminate biases, comparative analysis was conducted in three different modes. Basic non-parametric tests of association between them were done for:

1) all respondents in the three sub-groups;
2) for the three sub-groups with elimination of all respondents in any of the sub-groups with any educational achievements beyond 12th grade level. This would control for effect of the higher educational achievement level in conjunction with tests of the relationship of selected variables conducted on the population of level four respondents considered alone.
3) the three sub-groups with elimination of D's respondents from the Reservation Control group. This may eliminate an unrepresentative sampling.

Where differences in the comparative modes produce more significant differences between the three basic sub-groups under investigation the different results will be reported.

VI. Data Analysis

The following portion of the report will be devoted to tests of the relationship of various variables considered in the study.

The order of presentation will focus on:

A. Educational Scales and Items (including Educational Experience Scale)

B. Respondents' Perceptions of Life Situations

C. Projective Achievement Measures

D. Public Interest Scale Ratings

E. Educational Influence Scale

F. Life Environment Index

Omitted is a discussion of the results of the administration of the Work Evaluation Scale. The responses of this scale upon preliminary inspection provided no useful contribution to the study. The researchers have chosen to deal with the analysis of this information at a later time.

After the presentation of the questionnaire results consideration will also be made of data obtained outside of the questionnaire framework. This involves an analysis of data on attendance of Turtle Mountain enrollees in colleges and universities and an analysis of Belcourt High School students educational achievements taking into account parents' occupational status. This will be followed by the conclusions and recommendations.

A. RELATIONSHIPS BETWEEN SELECTED TARGET GROUPS AND EDUCATIONAL PREDISPOSITIONS

The basic question is whether the three selected target groups (Langer employees of tribal heritage/other Langer employees/Reservation Control Group) differ in their responses to measures of educational predispositions and achievement.

The first measure on which the groups can be compared is in the cumulative pro-education score for Education Scale A. These are given in Table 1 in terms of reduced scoring categories.

TABLE 1

SELECTED TARGET GROUPS AND CUMULATIVE SCORES ON EDUCATION SCALE A

Scoring Range	Target Groups: Langer Non-tribal	Langer Tribal	Reservation Control Group
4 - 9	8 (23%)	13 (25%)	16 (25.4%)
10 - 12	19 (54.3%)	25 (48.1%)	30 (52.5%)
13 - 15	8 (23%)	13 (25%)	11 (18.7%)
No Response	-	1 (1.9%)	1 (1.7%)
N =	35	52	59

All three groups show very similar central tendencies (scoring range 10-12) and the low and high categories do not show any significant skewing towards any of the target groups.

Two background factors merited a presentation of the data under control. The high proportion of women in the Langer groups dictated a presentation of these cumulative scores with control by sex. The disparate sampling of dependents having education over twelve years also dictated a control for the education level.

The control for sex focuses on female respondents only (since the 7 males in the Langer tribal sub-group provides a sub-group too small to constitute a meaningful sample). The following distribution is indicated.

TABLE 2

FEMALE RESPONDENTS IN SELECTED TARGET GROUPS AND CUMULATIVE SCORES ON EDUCATION SCALE A

Scoring Range	Langer Non-tribal	Langer Tribal	Reservation Control Group
4 - 9	5 (25%)	10 (22.3%)	8 (24.2%)
10 - 12	8 (40%)	23 (51.1%)	20 (60.6%)
13 - 15	7 (35%)	11 (28.3%)	6 (15.1%)
No response	-	-	-
N =	20	44	34

The consequence of the implementation of the control on sex is that a slight directional trend in terms of the higher scale scores is indicated from lowest percentage among Reservation Control Group members to highest percentage Langer non-tribal employees. This is the only discriminate relationship in the table and it contributes to a X^2 for the whole table of 2.92 which has a probability of $>.60$ at four degrees of freedom.

The other control which must necessarily be applied is that of educational level. The attainment of a high educational level by itself might be influential enough to remove all differences that might exist as a result of social or economic background.

The control is indicated in removing from the table all respondents who indicated any educational experience beyond the 12 grade. This reduced the total N to 108. The adjusted table is indicated below.

TABLE 3

SELECTED TARGET GROUPS AND CUMULATIVE SCORE ON EDUCATION SCALE A (ALL COLLEGE LEVEL RESPONDENTS EXCLUDED)

Scoring Range	Target Group: Langer Non-Tribal	Langer Tribal	Reservation Control Group
4 - 9	6 (23%)	12 (25%)	9 (26.4%)
10- 12	13 (57.7%)	23 (47.9%)	18 (53.0%)
13- 15	7 (26.9%)	12 (25%)	7 (20.6%)
No Response			
N =	26	48	34

This table is very revealing indicating that the response profiles are remarkably similar for all three groups with the college level respondents excluded. Since the difference between groups is almost non-existent one is led to speculate whether a difference occurs that is highly associated with the educational level per se.

TABLE 4

EDUCATIONAL LEVEL AND SCORING ON EDUCATION A SCALE

Scoring Range	Educational Level 1 Below 8th Grade	2 Grades 9-10	3 Grades 11-12	4 Over 12
4 - 9	3 (23.1%)	4 (15.4%)	20 (29.9%)	10 (26.4%)
10 - 12	7 (53.9%)	11 (42.3%)	35 (52.2%)	21 (55.3%)
13 - 15	3 (23.1%)	11 (42.3%)	12 (17.9%)	6 (15.9%)
No Response	1 (7.7%)			1 (2.6%)
N =	14	26	67	38

No directional relationships are established. The only deviate patterns appear to be the high proportion of those in Educational Level 2 who score highly. (High range 13-15.) Also noteworthy is the fact that a higher proportion of education grade level 1 people score in the higher range than either levels three or four. This may well be a function of a psychological set on the part of less sophisticated respondents.

Going on to investigate responses to understand items on the A scale, significant differences were found in the three target groups on selected items. The following items exhibited statistically significant relationships.

TABLE 5

RESPONSES OF SELECTED TARGET GROUPS ON ITEM
"HIGH SCHOOL STUDENTS HAVE TOO EASY A TIME OF IT"

	Langer Non-tribal	Langer Tribal	Reservation Control
(+Ed.) yes	26 (74.3)	36 (69.2)	25 (42.4)
no	9 (25.7)	15 (28.8)	33 (55.9)
No response	-	1 (2.0%)	1 (1.7%)
N =	35	52	59

X^2 = 12.94 with 4 degrees of freedom.* Probability = .01.
(*No response category was included by computer program so chi square is somewhat inflated.)

A possible explanation exists for the pattern. The question may not have been interpreted as a subjective projection of educational loads on high school students in general but may have reflected an empirical assessment of their own children's performance. That is, they see their own children having a "hard time of it" in school. Another question exhibiting a significant differential response was shown as follows.

TABLE 6

RESPONSES OF SELECTED TARGET GROUPS ON ITEM
"COLLEGE GIVES ME AN OPPORTUNITY FOR A BETTER LIFE"

	Langer Non-tribal	Langer Tribal	Reservation Control Group
(+Ed.) agree	19 (54.3%)	41 (78.8%)	26 (44.1%)
Disagree	16 (45.7%)	11 (21.2%)	32 (54.2%)
No response	-	-	1 (1.7%)
N =	35	52	59

Chi square = 15.12 with 4 degrees of freedom - probability = .004.

Highest agreement is indicated for the Langer-tribal group. Why this particular item merits such a differental response on the part of this work group is not apparent.

A review of all other items reveals no significant difference between the target groups. This is indicated for those items that were strong discriminators (e.g.,"education all right for some people but not everybody" 70/30 or "education is necessary to get someplace in the community" 56/43.)

Controlling for education by removing all those with some education above the 12th grade does not measurably change the patterns or the percentage differences between groups.

TABLE 7

RESPONSE OF SELECTED TARGET GROUPS ON ITEM "MOST OF THE SATISFIED PEOPLE ARE THOSE WHO SUCCEEDED ON THEIR OWN"

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree	25 (71.4%) ←	31 (59.6%) ←	29 (49.2%)
Disagree	10 (28.6%) →	20 (38.5%) →	29 (49.2%)
No response		1	1
N	35	52	59

The X^2 = 4.91 which at 4 degrees of freedom has a probability of .30.

Kendall's tau.B = .284 Kendall's tau C = .237

Although not exhibiting significance this item provides a very consistent directional trend if we can assume that the Langer tribal employees through their consistent employment patterns represent a stage in economic and social patterns between that of the Langer non-tribal employee and the reservation control group.

The Education 1 scale also provided a response profile that indicated a strong but not statistically significant loading on the high scores for the reservation control group. Almost 34 per cent rated scores of 9-10.

TABLE 8

SCORINGS ON B SCALE BY SELECTED TARGET GROUPS

Scoring Range	Langer Non-tribal	Langer Tribal	Reservation Control Group
9-10	9 (25.7%)	10 (19.2%)	20 (33.9%)
7- 8	14 (40%)	23 (44.2%)	25 (48.1%)
5- 6	6 (17.1%)	11 (21.%)	10 (19.2%)
Below 5	4 (11.4%)	2 (4.1%)	3 (5.1%)
No response	2 (5.7%)	6 (11.5%)	1 (1.7%)
	35	52	59

However, if we control for education (by dichotomozing between the first three education heads and education level 4--education above 12 grades) a different picture emerges. The distribution of scores manifest considerable similarity between the three target groups.

TABLE 9

SCORINGS ON B SCALE BY SELECTED TARGET GROUPS
(EDUCATION LEVEL 4 EXCLUDED)

Scoring Range	Langer Non-tribal	Langer Tribal	Reservation Control Groups
9-10	6 (23.1%)	10 (20.8%)	8 (23.5%)
7- 8	10 (38.5%)	21 (43.8%)	14 (41.2%)
5- 6	5 (19.2%)	11 (22.9%)	9 (26.5%)
Below 5	4 (15.4%)	2 (4.2%)	2 (5.9%)
No response	1 (3.8%)	4 (8.3%)	1 (2.9%)
	26	48	34

Several questions on the B scale exhibited significant or near significant differences between the selected target groups, but these differences regressed to the mean with exclusion of the education level four group. These relationships are indicated in the dual table given below.

TABLE 10

RESPONSE OF SELECTED TARGET GROUPS ON ITEM
"I DO NOT CARE ABOUT EDUCATION AS LONG AS I CAN LIVE COMFORTABLY"

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree	7 (20.0%)	14 (26.9%)	10 (16.9%)
Disagree (+ Ed.)	27 (7.71%)	32 (61.5%)	48 (81.4%)
No response	1 (2.9%)	6 (11.5%)	1 (1.7%)
N =	35	52	59

X^2 = 8.36 probability w/4 degrees of freedom = .08.

Level 4 Education Respondents Excluded

Agree	6 (23.1%)	14 (29.2%)	9 (26.5%)
Disagree (+Ed.)	19 (73.1%)	28 (58.3%)	24 (70.6%)
No response	1 (3.8%)	6 (12.5%)	1 (2.9%)
N =	26	48	34

X^2= 4.01 probability w/4 degrees of freedom = .40.

TABLE 11

RESPONSE OF SELECTED TARGET GROUPS ON ITEM
"I AM INTERESTED IN EDUCATION BUT NOT TOO CONCERNED ABOUT IT"

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree	15 (42.9%)	20 (38.5%)	13 (22.0%)
Disagree (+ ed.)	19 (54.3%)	28 (53.8%)	45 (76.3%)
No response	1	4 (7.7%)	1 (1.7%)
N=	35	52	59

X^2= 9.02 with 4 degrees of freedom probability= .06

Level 4 Education Respondents Excluded

Agree	14 (53.8%)	18 (37.5%)	9 (26.5%)
Disagree (+ ed.)	12 (46.2%)	26 (54.2%)	24 (70.6%)
No response		4 (8.3%)	1 (2.9%)
N=	26	48	34

X^2= 7.44 with 4 degrees of freedom probability=.11

The strong pro-education response which is 20 per cent higher than the other two sub-groups are diminished when the level four group respondents are excluded.

One particular item on the scale exhibited a significant difference between groups for the whole population and for the population controlled for the higher education level. This was the item:

TABLE 12

"I HAVE NO DESIRE TO DO ANYTHING WITH EDUCATION"

	Langer Non-Tribal	Langer Tribal	Reservation Control Group
Agree	6 (17.1%)	1 (1.9%)	7 (11.9%)
Disagree (+ Ed.)	28 (80.0%)	45 (86.5%)	51 (86.4%)
No Response	1 (2.9%)	6 (11.5%)	1 (1.7%)
	35	52	59
	Level 4 Respondents Excluded		
Agree	6 (23.1%)	1 (2.1%)	7 (20.0%)
Disagree (+ Ed.)	19 (73.1%)	41 (85.4%)	26 (76.5%)
No Response	1 (3.8%)	6 (12.5%)	1 (2.9%)
	26	48	34

The table should be read with caution. Although the agree response was totally distributed among the lower education levels, it does represent only 14 responses. The chi-square is also inflated by automatic inclusion of the no response category which is loaded on the Langer-tribal independent category.

All other items in the Education B scale exhibited no significant differences in response patterns between the target sub-groups.

The Education Experience scale was also analyzed for the emergence of significant differences between the target sub-groups. The distribution of scores among the groups is given in Table 13.

TABLE 13

CUMULATIVE SCORE ON EDUCATION EXPERIENCE SCALE BY SELECTED TARGET GROUPS

Scoring Ranges	Langer Non-tribal	Langer Tribal	Reservation Control Group
9-10	17 (48.6%)	24 (46.1%)	21 (35.6%)
7- 8	11 (31.4%)	11 (25.0%)	25 (42.4%)
5- 6	3 (8.6%)	7 (13.4%)	9 (15.3%)
Below 5	3 (8.6%)	2 (3.8%)	4 (6.8%)
No response	1 (2.9%)	6 (11.5%)	
	35	52	59

Control of or higher education levels intensified the difference between the Langer plant groups and the reservation control groups.

TABLE 14

CUMULATIVE SCORE: EDUCATION EXPERIENCE SCALE (EDUCATION LEVEL 4 EXCLUDED)

Scoring Range	Langer Non-tribal	Langer Tribal	Reservation Control Group
9-10	12 (46.1%)	21 (43.8%)	10 (29.4%)
7- 8	7 (26.9%)	12 (25.0%)	16 (47.0%)
5- 6	3 (11.4%)	7 (14.6%)	5 (14.7%)
Below 5	3 (11.4%)	2 (4.2%)	3 (8.8%)
No response	1 (3.8%)	6 (12.5%)	
N=	26	48	34

The results indicate that the reservation control group departed from the Langer Plant groups only by a limited scoring range with some 40 per cent of the Reservation Control group voicing negative

responses for one or two more questions in the question set. In other respects the distribution is similar between groups.

One item that exhibited a sizeable percentage difference between tribal and non-tribal sub-groups was the item "I would have enjoyed school had the teachers better understood me."

The distribution for full population under investigation is as follows.

TABLE 15

DISTRIBUTION IN TEACHER UNDERSTANDING ITEM

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree	10 (28.6%)	23 (44.2%)	27 (45.8%)
Disagree	25 (71.4%)	26 (50.0%)	32 (54.2%)
No response	-	3 (5.8%)	-
N =	35	52	59

This distribution exhibits near significance. Chi square = 9.00 with four degrees of freedom probability - .06.

Significance at the level is achieved upon dichotomization of the categories into tribal/non-tribal variables. The item appears to indicate that more persons of tribal heritage had difficulties in communication or perceived discrimination in terms of their years of basic education.

When only respondents whose education level is four are considered (a small sample of 38), there appears to be a shift back to the null hypothesis.

The results of the following table indicate that the retrospective alienation probed by the item does not hold for those who were able to obtain some post-secondary education or training. Finally, the one item that really served as a discriminator between the selected target groups was an item dealing with financing of education. The difference was dramatic.

TABLE 16

LEVEL FOUR RESPONDENTS AND
DISTRIBUTION ON TEACHER UNDERSTANDING ITEM

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree	2 (22.2%)	1 (25%)	8 (32.0%)
Disagree	7 (77.8%)	3 (75%)	17 (68.0%)
N =	9	4	25

X^2 = .34 probability w/2 degrees of freedom = .80.

TABLE 16A

RESPONSE ON SELECTED TARGET GROUPS ON
ITEM "TOO MUCH MONEY IS SPENT ON EDUCATION"

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Agree (+ Ed.)	15 (42.9%)	5 (9.6%)	50 (84.7%)
Disagree	19 (54.3%)	46 (88.5%)	9 (15.3%)
No response	1 (1.7%)	1 (2.9%)	-
N =	35	52	59

X^2 = 17.73 probability w/4 degrees of freedom = .001.

More than 40% of the Langer Non-tribal group took the limiting position. The explanation is obvious to those who live in the area. The non-tribal residents send their children to Rolla public school and pay personal property taxes to finance them. The reservation residents have their educational needs funded through the BIA, and the funding in recent years has been very generous, particularly with the addition of one million dollars in new plant facilities. In addition some one-fifth of the school population of the Rolla Public Schools is tribal. Yet the parents of these students are exempted from the tax rolls. This has engendered in the minds of many of the community residents a feeling they are carrying someone else's fair share. These dissatisfactions may carry over to a negative response on this item.

B. Respondent Perceptions of Life Situation

The self-anchoring Cantrill Scale is utilized to measure achievement perceptions on the part of the three selected sub-groups. The four part item eliciting a response of life situations presented an opportunity to measure his achievement from a base period of five years previous to the present. It also permits the respondent to project his aspirations to a period five years hence. Finally, it allows the respondent to project the life situation of his children relative to his present life situation and his own future.

The Ladder perceptions for one's situation five years previous for the three selected target groups are as follows:

TABLE 17

LADDER RATINGS FOR SELECTED TARGET GROUPS: PAST ASSESSMENT

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Mean Ladder Rating	4.00	4.30	3.74
Mode	5 (13*)	5 (18*)	3 (14*)
S.D.	1.42	2.08	2.09
N =	35	48	52

*Figure in parenthesis indicates number of respondents so rating themselves.

The ladder perceptions for one's life situation for the three selected target groups as they are perceived at present are presented in the aggregate below.

TABLE 18

LADDER RATING FOR SELECTED TARGET GROUPS: PRESENT ASSESSMENT

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Mean Ladder Rating	6.63	6.39	6.67
Mode	8 (10)	6 (8) 8 (8)	8 (14)
S.D.	1.75	2.20	1.82
N =	33	51	55

Future aspirations are registered in the ladder rating for a period five years hence. The aggregate measures on this indicator are as follows.

TABLE 19

LADDER RATINGS FOR SELECTED TARGET GROUPS: FUTURE ASSESSMENT

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Mean Ladder Rating	8.12	7.90	8.70
Mode	8 (9) 10 (9)	10 (17)	10 (21)
S.D.	1.59	2.45	1.38
N =	33	50	54

Perception of children's life station is indicated in the following table.

TABLE 20

LADDER RATINGS OF SELECTED TARGET GROUPS: CHILDREN'S ASSESSMENT

	Langer Non-tribal	Langer Tribal	Reservation Control
Mean Ladder Rating	8.33	9.08	9.00
Mode	8 (9)	10 (23)	10 (31)
S.D.	1.51	1.24	1.54
N =	27	43	51

There appears to be a unanimous optimism about their children's future regardless of the group to which they belong. It is interesting to note however that the non-tribal population average is at least one step lower, and that modal response is two steps lower.

Besides the four measures indicated, some derivation measures are important in reflecting achievement. Standing alone each level indicated by the respondent provides a perpetual baseline for achievement. The situation viewed by one respondent as a 6 might be rated 8 or 4 by another respondent. What is important is change between time periods and differences between perception of one's life situation and that of anticipated children's life situation. The difference between life situation in the past and life situation in the present represents a varying distance on the self-anchoring scale. As a change in life situation, it can be varied as achievement if directed toward the positive pole of the scale (10). The aggregate changes between past and present are given in Table 21.

TABLE 21

AVERAGE CHANGE BETWEEN
PAST AND PRESENT LIFE SITUATIONS

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Mean change	2.30	2.19	2.96
Mode change	3 (9)	3 (12)	3 (14)
S.D.	1.42	2.32	2.11
N =	33	51	52

Aspiration and optimism in one's life situation can be measured by noting for each respondent the difference between the present ladder rating of one's life situation and the contemplated ladder rating in five years. The aggregate response for the three selected target groups is given below. The larger the difference the greater the perceived achievement within a set time span.

TABLE 22

DIFFERENCE BETWEEN PRESENT AND CONTEMPLATED LIFE SITUATION

	Langer Non-tribal	Langer Tribal	Reservation Control Group
Mean difference	1.63	1.43	1.73
Mode difference	1 (14)	2 (10)	2 (18)
S.D.	1.06	1.95	1.46
N =	33	52	52

The aggregate measures of change reflect a greater perception of the betterment of one's life situation and a prospect of continued improvement on the part of the members of the Reservation Control group. It should be noted, however, that these measures reflect an average that span perceived changes from -3 to +8. In this sense the reservation control group mean is a reflection of the nine members of that group who registered differences between past and present life situations of +5 or better. The review of mean scores for the three groups appears to indicate that the Langer tribal group perceived themselves in an improving situation five years ago. In this sense they were among the fortunate to have available to them the job opportunity of the Langer plant. One notes, however, that the Reservation Control group has exhibited higher achievement and aspiration scores. This may be the result of increased employment opportunities that have emerged within the past three years.

A control on education seems indicated in this investigation. The question may be asked whether the higher scores for a particular group would be due to the presence of an inordinate number of persons who have had some post-secondary education.

TABLE 23

A SURVEY OF THE RESERVATION CONTROL GROUP: EDUCATION LEVEL 4 GROUP REVEALS THE FOLLOWING AGGREGATE MEASUREMENTS (N=25)

	Past Perception	Present Perception	Difference	Future Perception	Difference	Children's Rating
Mean	3.9	6.9	3.0	8.7	1.8	9.0
Mode	3 (6)	7 (5)	4 (5)	10 (9)	1 (7)	10 (11)
S.D.	2.1	1.7	1.7	1.35	1.6	1.3
N =	23	23	23	21	21	21

What is readily apparent is that by itself the group with some exposure to post-secondary programs is not in any way unique from the basic norm for the full group. In fact, the difference between the level four sub-groups and the full Reservation Control Group does not deviate more than .1 of a percentage point from the norm for any of the measures.

One more rejection of the effect of the education level upon the ladder ratings is provided for in Table 24 which indicates the means for the measures of past, present and future life situation ratings.

TABLE 24

MEANS FOR SELECTED SELF-ANCHORING ACHIEVEMENT MEASURES (ALL RESPONDENTS)

	Education Levels			
Measure	1	2	3	4
Past	3.8	4.5	4.6	3.9
Present	5.4	6.33	7.0	7.7
Future	5.6	8.00	7.89	8.6
Children's Situation	8.2	9.2	8.65	9.00

When we review the differences between selected target groups, one notes that there is not a substantial difference between groups on most measures. The one measure that shows a consistent linear improvement in perception of life situation is that of "present life situation." Even in the "present" assessment the differences is incremental and minimal between the ordered groups.

A special inquiry is made in regard to the tenure of service at the Langer plant and its effect upon these achievement measures: whether employees with long service have higher assessments of their past and present situations. It can also be inquired as to whether those showing shorter experience at the plant exhibited a greater change between past and present perceptions. These findings could show that employment at the Langer plant was a significant factor in obtaining higher perceptions of life status. The tenure variable in the following table will be marked by three categories: ten years employment or more, four to ten years employment and under four years employment.

Since the tribal employee group is of particular interest here, the table below indicates the variation in achievement means (Ladder ratings) for each category of work experience.

TABLE 25

LANGER TRIBAL EMPLOYEES: MEAN LADDER RATINGS BY LENGTH OF WORK EXPERIENCE

	Work Experience		
Ladder Ratings	Over 10 Years	4-10 Years	Under 4 Years
Past	4.14	3.60	4.70
Present	6.15	6.20	6.90
Future	7.50	8.30	8.70
Children's Future	8.70	9.10	9.30
N =	25	10	13

One notes that there is no substantial difference between any of the three experience groupings. Those who have worked under four years appear to exhibit somewhat more of a positive evaluation, but it is not significantly different from the mean readings for the full group.

C. Relationship's Between Selected Target Groups and Projective Achievement Indicators

An important objective of this study was to determine whether the three selected target groups (Langer tribal employees/Langer Non-tribal employees/Reservation Control group) vary in terms of their own sense of achievement and in educational aspirations as projected onto their children.

The first question which was open-ended focused on perceived improvements in life and home. Respondents were asked to indicate any improvements within their lives within the past five years. The results of this inquiry are given in Table 26. If we are to review the cumulation of the response of "no improvement" and "no response" we can see that the group which has the lowest perception of improvement is the Langer Tribal group (48.1%). A check of these 25 respondents also indicated that eight respondents reflected set responses on the Cantrill Ladder ratings (e.g., 5, 5, 5, 5) while five others indicated a decrease in ladder ratings from past to present.

TABLE 26

PERCEIVED IMPROVEMENTS IN LIFE AND HOME OF SELECTED SUB-GROUPS

Perceived Improvements	Langer Non-tribal	Langer Tribal	Reservation Control Group
Better job	1 (2.9%)	1 (1.9%)	6 (10.2%)
New home	14 (41.2%)	23 (44.2%)	15 (25.4%)
More pay	2 (5.9%)	1 (1.9%)	6 (10.2%)
Higher living standard	3 (8.8%)	2 (3.8%)	3 (5.1%)
Move to town	2 (5.9%)	-	2 (3.4%)
Increased worth	1 (2.9%)	-	-
More education	-	-	3 (5.1%)
No improvement	7 (20.6%)	14 (26.9%)	8 (13.7%)
No response	4 (11.8%)	11 (21.2%)	15 (25.4%)
N =	34	52	58

The analysis of the distribution reveals the most salient improvement to be that of acquiring a new home. This is to be expected given the thrust in home building undertaken under BIA programs. Under the provisions of a home purchase grant program, a head of a family needs to reside at the home location, demonstrate job and family stability, dependability, money management, and possess a good credit rating to be eligible for a grant that covers down payment and closing costs. The Langer tribal employment group is in a singular position to take advantage of home purchase grants.

Improvement of the employment situation among the Reservation Control group is seen in the cumulative aggregation of the better job,

more pay, and a higher living standard categories (25.5%). This does not, however, indicate a general trend from conditions of unemployment to that of employment. Inspection of individual responses indicate that, except for eleven individuals, the respondents did have previous employment. Several had as many as six jobs before their present position. A great many of the previous positions (est. 20) reported, however, constituted marginal employment (e.g., cooks helper, teachers aide, nurses aide, "some" construction work, etc.).

An open-ended question was then provided to deal with children's plans for their future. This particular item was not especially successful. For most of the respondents the children are too young to offer any plans or occupational objectives. Responses thus are indicated only for children of high school or college age. However, the reservation control group did indicate the highest percentage of families where children had plans, and some of these plans were quite specific. The breakdown on children's plans is given below.

TABLE 27

CHILDREN'S PLANS AS INDICATED BY SELECTED TARGET GROUPS

Response	Langer Non-Tribal	Langer Tribal	Reservation Control Group
Plans Indicated	3 (8.6%)	7 (13.4%)	12 (20.3%)
Undecided	-	1 (1.9%)	1 (1.7%)
Too Young	2 (5.7%)	-	8 (13.6%)
Higher Education	-	2 (3.8%)	1 (1.7%)
No Plans	9 (25.7%)	11 (21.2%)	19 (32.2%)
No Response	21 (60.0%)	32 (61.5%)	18 (30.5%)
N =	35	52	59

Specifics on the 21 respondents who did indicate that their children had plans indicated the following variety of responses:

Langer Non-tribal: farming, business.

Langer Tribal: "Trade School," "Sheet metal work," "teacher," "farming."

Reservation Control Group: "girls want to be secretaries," "beauty operator," "coach," "teacher," "build houses," "semi-truck driver," "hospital," "wants to get married," "anything with cars," "have business," "office worker," "earn money for school," "government work."

A control of those respondents having a level four education reveals that of those indicating plans by their children, the reservation control group, parents with level four education accounted for five indicating plans, level three respondents accounted for three who indicated plans, and level one and two respondents accounted for two each.

The specific choices indicate, while there is a strong projected aspiration that their children attend college (at least under the suggestion of the item), in the instances where children make choices, those choices are more often practical and vocational. Also of the Reservation Control group responses only one specific response (government work) came from a respondent who was categorized as having children in college.

The next open-ended question dealt with plans that the respondents had for their children. Here the answers were not so occupationally specific but for the most part focused on educational aspirations. Several respondents entered disclaimers that they were going

to let their children decide for themselves what they wanted to pursue.

The coding of the responses provided some five identifiable categories. The most substantial number of respondents omitted any response or indicated that they had no plans for their children (e.g., "nothing definite," "no plans at this time"). These two response modes were combined into one category. The other response modes focused on a general planning by the parents to provide their children with an education, specific plans to send children to college or to trade school, or assist them in business.

TABLE 28

PARENTS' PLANS FOR CHILDREN
BY SELECTED TARGET GROUPS

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Groups
No Plans No Response	19 (54.3%)	31 (59.6%)	37 (62.7%)
"Give them an education"	4 (11.4%)	9 (17.3%)	6 (10.2%)
College	10 (28.6%)	10 (19.2%)	14 (23.7%)
Trade School	1 (2.9%)	1 (1.9%)	1 (1.7%)
Business	1 (2.9%)	1 (1.9%)	1 (1.7%)
N =	35	52	59

The distribution of responses for all groups is very similar as measured in percentages. The high proportion of no response includes that portion of the population who have no children or who are at a pre-school level.

Control by education is essential in this comparison so the data on parents' plans for children is presented with the exclusion of all those respondents who have an education level of four. This is given below in Table 29.

TABLE 29

PARENTS' PLANS FOR CHILDREN
BY SELECTED TARGET GROUPS
(EDUCATION LEVEL FOUR RESPONDENTS EXCLUDED)

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Groups
No Plans No Response	15 (57.7%)	30 (62.5%)	19 (55.9%)
"Give them an Education"	3 (11.5%)	9 (18.8%)	3 (8.8%)
College	6 (23.1%)	8 (16.7%)	11 (32.4%)
Trade School	1 (3.8%)	1 (2.1%)	1 (2.9%)
Business	1 (3.8%)	-	-
N =	26	48	34

As we can see there is little difference in the response profiles between the original populations for the selected target groups and the adjusted populations. It is most interesting to note that the proportion of the Reservation Control group making plans for the children's attendance at college increases upon adjustment by exclusion of education level four respondents. Of the 14 seeing a college career in their children's futures, 11 came from education levels 1, 2, and 3.

These findings are confirmed in the next measurement which asked respondents whether they expected their children to attend college.

TABLE 30

EXPECTATION OF COLLEGE FOR CHILDREN BY SELECTED TARGET GROUPS

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Group
Yes	22 (62.9%)	35 (67.3%)	47 (79.7%)
No	3 (8.6%)	0	0
Don't Know	0	2 (3.8%)	2 (3.4%)
No Response	10 (28.6%)	15 (28.8%)	10 (16.9%)
N =	35	52	59

This appears to be an uncommonly high expectation of college for children for all groups. The high expectation among the Reservation Control group holds even after all level four education respondents are excluded. This is indicated in Table 31.

TABLE 31

EXPECTATION OF COLLEGE FOR CHILDREN BY SELECTED TARGET GROUPS (LEVEL FOUR RESPONDENTS EXCLUDED)

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Groups
Yes	15 (57.5%)	31 (64.5%)	27 (79.4%)
No	3 (11.5%)	0	0
Don't Know	0	2 (4.2%)	1 (2.9%)
No Response	8 (30.8%)	15 (31.3%)	6 (17.6%)
N =	26	48	34

X^2 = 13.23 probability w/6 degrees of freedom - .04.

The significant differences between groups as indicated in the table may be based on an artificially inflated chi square (note that the deviation is primarily located in the cells of the no response category). The no response category can be partially explained by that proportion of respondents who may be unmarried and have no children and thus feel this particular inquiry irrelevant.

The number of childless respondents for the Langer Non-tribal group was seven, for the Langer tribal group eleven, and for the Reservation Control Group, seven. The number of Langer tribal personnel who did not respond to this inquiry and who at the same time were classified as childless is five. The number of Reservation Control group personnel who rendered a non-response and whose background was childless is also five.

The following item revealed a considerable difference between the selected target groups. This was an item asking the respondents how they believed their children could afford higher education. Four alternate sources of funding were indicated: parents assistance, part-time work, government aid, and scholarships. The item was a successful discriminator. Most respondents who chose to answer provided a check on either one or two of the alternatives. The "straight ticket" response was observed only in three instances.

There is a significant difference between tribal and non-tribal groups in terms of the expectation of rendering parental assistance. This is shown in the following table.

TABLE 32

RESPONSE OF SELECTED TARGET GROUPS TO PARENTAL ASSISTANCE INQUIRY

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Groups
Yes	20 (57.1%)	14 (26.9%)	23 (39.0%)
No	3 (8.6%)	20 (38.5%)	26 (44.1%)
No Response*	12 (34.3%)	18 (34.6%)	10 (16.9%)
N =	35	52	59

*on any alternative.

The relationships produce a chi square of 17.66 which is significant at 4 degrees of freedom with a probability of .001. The most significant deviation from the mean is the higher proportion of Langer Non-tribal respondents who foresaw parental assistance.

The same relationship is also seen in the assessment that children of respondents would afford higher education through part-time work. The distribution of responses by target sub-groups is given in Table 33.

TABLE 33

RESPONSES OF SELECTED TARGET GROUPS TO STUDENT-WORK INQUIRY

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Groups
Yes	16 (45.7%)	13 (25.0%)	23 (39.0%)
No	7 (20.0%)	20 (38.5%)	26 (44.1%)
No Response	12 (34.2%)	19 (36.5%)	10 (16.9)
N =	35	52	59

X^2 with 4 degrees of freedom = 10.85 significant with probability of .02.

Similarly there is a highly discriminate response in terms of the third alternative: expectation of affordance of higher education for children through government aid. Here there is a clear directional trend from a low expectation on the part of Langer Non-tribal employee to a very high expectation on the part of the Reservation Control group. This is indicated in Table 34.

TABLE 34

RESPONSE OF SELECTED TARGET GROUPS
TO EXPECTATION OF GOVERNMENT AID ITEM

Responses	Langer Non-tribal	Langer Tribal	Reservation Control Group
Yes	8 (22.9%)	30 (57.7%)	41 (69.5%)
No	15 (42.9%)	4 (7.7%)	8 (13.6%)
No response	12 (34.3%)	18 (34.6%)	10 (16.9%)
N =	35	52	59

X^2 w/4 degrees of freedom = 28.25 probability = below .01

Expectations on ability to afford higher education for dependents were not so differentially distributed among the three selected target groups. This item revealed, however, that the Langer-tribal employee group did not have as high an expectation of scholarship aid for their dependents.

TABLE 35

RESPONSES OF SELECTED TARGET GROUPS
TO EXPECTATION OF SCHOLARSHIPS FOR DEPENDENTS

Responses	Langer Non-Tribal	Langer Tribal	Reservation Control Group
Yes	12 (34.3%)	6 (11.5%)	21 (35.6%)
No	11 (31.4%)	27 (51.9%)	27 (45.8%)
No Response	12 (34.3%)	19 (36.5%)	11 (18.6%)
N =	35	52	59

X^2 = 12.54 with 4 degrees of freedom probability = .01

Since approximately a third of the Reservation Control group manifested an expectation of scholarships a check must be made which controls for education. If we use the adjusted population of 34 individuals in education levels 1, 2, and 3 the number showing an expectation of scholarship aid is 11 or 32.4%--certainly not a significant departure from the full subpopulation mean. Taken alone the 25 reservation control group respondents who have had some exposure to post-secondary education included ten respondents who registered expectations of scholarship for their children (40%).

An important determination was the expectation of the work respondents believed their children would be involved in upon reaching their majority. The responses are based on a check off of nine different occupational categories: don't know, professional, having own business, teaching, scientific work, picking up what they can, farming, technical and mechanical work, military service, and service occupations. The following table indicates the distribution of occupational predictions by respondents. The total is more than the

146 respondents because of multiple choices by a number of the respondents.

TABLE 36

SELECTED TARGET GROUP AND OCCUPATIONAL PROJECTIONS

Occupation Category	Langer Non-tribal	Langer Tribal	Reservation Control Group
Professional	5	3	13
Having own business	2	2	6
Teaching	7	6	7
Scientific work	0	0	1
Picking up what they can	0	3	6
Farming	3	1	0
Technical work	2	7	6
Military	2	1	0
Service Occupation	1	2	2
Don't know	15	32	27
N =	37	56	68

The distribution of expectations reveals no particular loading by a selected target group on a given occupational category except for the 13 (prof) registered by the Reservation Control group. This appears to be the result of a fault in the instrument since the categories did not list a white collar category ("office work"). This is indicated by cross reference to the item indicating knowledge of children's plans for life work. Where respondents indicated "girls want to be secretaries" she also indicated "professional" as the expectation category.

The don't know category is sizeable for all three sub-groups, but reflects the general predisposition to defer either aspirations or speculations about children's life work until the latter years of high school.

D. Public Interest Scale Ratings

The questionnaire inquired as to level of interest of all respondents in five areas of public affairs. The findings on the five areas are indicated below.

TABLE 37

INTEREST LEVELS OF SELECTED TARGET GROUPS IN COMMUNITY AFFAIRS

Interest Levels	Langer Non-tribal	Langer Tribal	Reservation Control Group
No interest		1 (1.9%)	
Very little Interest	4 (11.4%)	11 (21.2%)	2 (3.4%)
Some Interest	21 (60.0%)	27 (51.9%)	23 (39.0%)
Considerable Interest	8 (22.9%)	9 (17.3%)	33 (55.9%)
No response	2 (5.7%)	4 (7.7%)	1 (1.7%)
N =	35	52	59

X^2 = 27.41 with 8 degrees of freedom (no response category probably = .006

The deviation contributing to the chi square can be traced to particular cell configurations: the far greater percentage of the Reservation Control group that exhibited "considerable interest" in community affairs and the higher than normal percentage of Langer tribal respondents exhibiting "very little" interest in community affairs.

Interest in local school affairs by the selected target groups is given in table 38.

TABLE 38

INTEREST LEVELS OF SELECTED TARGET GROUPS IN SCHOOL AFFAIRS

Interest Levels	Langer Non-Tribal	Langer Tribal	Reservation Control Group
No interest	2 (5.7%)	8 (15.4%)	1 (1.7%)
Very little interest	6 (17.1%)	7 (13.5%)	4 (6.8%)
Some interest	14 (40.0%)	18 (34.5%)	28 (47.5%)
Considerable interest	8 (22.9%)	16 (30.8%)	26 (44.1%)
No response	5 (14.3%)	3 (5.8%)	-
N =	35	52	59

X^2= 21.82 with 8 degrees of freedom probability = .005.

Again the contribution to chi square is indicated by the higher proportion of the Reservation Control group who expressed considerable interest. All the distribution of no responses among the other selected target group may have inflated the chi square.

Again, there is need to introduce a control for this effect, and this is seen in terms of the children's variable and in particular in terms of number of children. By itself the association of the number of children variable with the school interest variable yields the following result.

TABLE 39

NUMBER OF CHILDREN AND INTEREST IN SCHOOL AFFAIRS

Interest Levels	None	1	2	3	4	5 or more
No Interest	8 (32.0)	-	2 (5.6)	-	-	2 (5.0)
Very Little Interest	2 (8.0)	4 (18.2)	8 (22.2)	1 (10.0)	2 (15.4)	-
Some Interest	6 (24.0)	10 (45.5)	17 (47.2)	4 (40.0)	5 (38.5)	17 (42.5)
Considerable Interest	6 (24.0)	6 (27.3)	8 (22.2)	4 (40.0)	5 (38.5)	21 (52.5)
No Response	3 (12.0)	2 (9.1)	1 (2.8)	1 (10.0)	1 (7.7)	-
N =	25	22	36	10	13	50

X^2 = 45.65 with 20 degrees of freedom probability = .0009.
Kendall's tau B = .284 probability = .000
Kendall's tau C = .265 probability = .000

The relationships between number of children and interest in school affairs is very clear. This is confirmed usually noting the directional tendencies toward the interest levels in each independent variable category manifesting the highest percentage. It is evident that high interest by the Reservation Control group in school affairs is largely a function of the larger number of large families in this group.

A most significant relationship was indicated in the indicator on tribal affairs. This is indicated in Table 40.

TABLE 40

INTEREST LEVELS OF SELECTED TARGET GROUPS IN TRIBAL AFFAIRS

Interest Heads	Langer Non-tribal	Langer Tribal	Reservation Control Group
No interest	14 (40.0%)	4 (7.7%)	2 (3.4%)
Very little interest	6 (17.1%)	17 (32.7%)	3 (5.1%)
Some interest	6 (17.1%)	22 (42.3%)	17 (28.8%)
Considerable interest	-	4 (7.7%)	37 (62.7%)
No response	9 (25.7%)	5 (9.6%)	-
N =	35	52	59

X^2 = 97.76 with 8 degrees of freedom probability = below .01

It is quite evident that the Reservation Control group is much more highly politicized in regard to tribal matters. There are a number of alternate explanations for this. One is that for the bulk of the Langer tribal employees their economic position has been stabilized and secure for a number of years, and basically this position is independent of what transpires on the Reservation. Not so with the remainder of the Reservation residents for whom tribal and tribal government activities have given promise of employment and homestead improvement in recent years. Another alternative explanation is that the Langer Tribal group has not itself been successful in tribal politics and in acceeding to tribal elective positions. Interviews with those familiar with the local tribal situation has revealed that a number of Langer Tribal personnel have in the past run for tribal offices, but have been outvoted. Also, they have not

been effective in tribal deliberations. The lower interest in tribal affairs may reflect disillusionment with experience in tribal affairs. Interviews with observers in the area have revealed that at one time when unemployment was higher, the Langer Plant employees were not totally accepted by fellow tribal residents: they held secure positions; they were good credit risks in the community; they were looked upon by white community people as responsible types. Their position was an envious one and led to their political defeats.

Finally, the results are presented for the differences between the selected target groups in interest in national affairs. These are provided in Table 41.

TABLE 41

INTEREST LEVELS OF SELECTED TARGET GROUPS IN NATIONAL AFFAIRS

Interest Levels	Langer Non-tribal	Langer Tribal	Reservation Control Group
No interest	-	-	1 (1.7%)
Very little interest	4 (11.4%)	11 (21.2%)	5 (8.5%)
Some interest	17 (48.6%)	26 (50.0%)	27 (45.8%)
Considerable interest	13 (37.1%)	13 (25.0%)	24 (40.7%)
No response	1 (2.9%)	2 (3.8%)	2 (3.4%)
N =	35	52	59

X^2 = 7.15 w/8 degrees of freedom probability = .52

There is somewhat of a heightened interest response on the part of the Reservation Control group, but it is not significant. They register most frequently in the "considerable interest" category,

but this may be a function of a respondent's tendency to give the best impression.

When one controls for education by eliminating from the analysis all respondents with a level four education, one finds a similar pattern for all three groups. It is interesting to note, however, that the Langer Non-tribal employee group registered most strongly of the three groups in the "considerable interest" category. However, the relationship is statistically not significant.

TABLE 42

INTEREST LEVELS OF SELECTED TARGET GROUPS IN NATIONAL AFFAIRS (LEVEL FOUR RESPONDENTS EXCLUDED)

Interest Levels	Langer Non-tribal	Langer Tribal	Reservation Control Group
No interest	-	-	1 (2.9%)
Very little interest	4 (15.4%)	11 (22.9%)	5 (14.7%)
Some interest	12 (46.2%)	26 (54.2%)	17 (50.0%)
Considerable interest	9 (34.6%)	10 (20.8%)	9 (26.5%)
No response	1 (3.8%)	1 (2.1%)	2 (5.9%)
N =	26	48	34

It is imperative that some control variable be considered here, particularly that of educational level. Certainly those with more education can be expected to express more interest in public affairs. However, in an analysis which excluded from the population all respondents with a level four education (any post-secondary education) the figures as expressed in percentages are remarkably alike.

TABLE 43

INTEREST LEVELS OF SELECTED TARGET GROUPS IN COMMUNITY AFFAIRS (ALL LEVEL FOUR RESPONDENTS EXCLUDED)

Interest Levels	Langer Non-tribal	Langer Tribal	Reservation Control Group
No interest	-	1 (2.1%)	-
Very little interest	3 (11.5%)	10 (20.8%)	1 (2.9%)
Some interest	16 (61.5%)	26 (54.2%)	13 (38.2%)
Considerable interest	5 (19.2%)	8 (16.7%)	19 (55.9%)
No response	2 (7.7%)	3 (6.3%)	1 (2.9%)
N =	26	48	34

X^2 = 20.22 w/8 degrees of freedom probability = .009

There are alternative explanations for the greater level of interest among the Reservation Control group. One is that the Control Group respondents were motivated to convey a "best impression" and hence checked off maximal interest categories. The other is that community events particularly in Belcourt have become more interesting. Certainly new major construction, new federal programs, involvement of the tribal government with more issues and greater politicization of the tribal segment of the community through the Indian movement would explain the higher interest level of the Reservation Control group.

E. Educational Influence Scale

The respondents were asked to rate the social groups with which they had common association in terms of the perceived interest these groups had in their education. The basic objective was to discover whether those respondents with more positively oriented attitudes toward education and those with a higher educational achievement level perceived particular interest and motivating influences on the part of certain agents in their lives. They were asked to rank the perceived interest in education by immediate family, relatives, community, previous and present employer.

The correlations between interest on the part of various agents and educational achievement (represented by educational levels one through four) for the various social agents are given below.

TABLE 44

CORRELATIONS BETWEEN EDUCATIONAL ACHIEVEMENT AND AGENTS OF EDUCATIONAL INFLUENCE

	r
Immediate family	.215
Relatives	.134
Community	.083
School	.197
Previous employer	.169
Present employer	.230
Co-workers	.193

As we can see the correlations while positive are very low. The association between level of schooling and perceived interest of close social agents in one's education is almost non-existent.

Relationships were also checked between the educational attitude scales and intensity of influence as exerted by different social agents. These relationships are presented in Table 45.

TABLE 45

CORRELATIONS BETWEEN CUMULATIVE EDUCATION SCALE SCORES AND INTEREST LEVELS OF AGENTS OF EDUCATIONAL INFLUENCE

	r	
	A Scale	B Scale
Immediate family	-.016	.279
Relative	-.023	.187
Community	-.027	.049
School	-.026	.108
Previous employer	-.116	.167
Present employer	-.041	.210
Co-workers	-.120	.240

The patterns indicate no relationship between cumulative A Scale score and interest levels of social agents. The B Scale presents some low correlations, but they are not significant. The null hypothesis is operative here.

A test of the relationships between labor environment status and intensity of interest by the selected social agents was also

made, and several statistically significant relationships were indicated. Almost all of the significant relationships are traceable to a stronger loading of reservation control group responses on the "considerable interest" category. This is indicated for perceived interest of family, community, previous employer, present employer, and co-workers. In addition, the relationship between labor environment status and interest by school teachers and officials while not a statistically significant relationship does indicate again a high loading on the "considerable interest" category by the Reservation Control Group.

Since the questions probed by this section are generally peripheral, presentation will be made only of two of the social agents.

TABLE 46

PERCEIVED INTEREST BY IMMEDIATE FAMILY IN RESPONDENTS" EDUCATION: BY SELECTED TARGET GROUPS

Interest Levels	Langer Non-tribal	Langer Tribal	Reservation Control Groups
Very little interest	-	4 (7.7%)	2 (3.4%)
Some interest	14 (40.0%)	20 (38.5%)	18 (30.5%)
Considerable interest	18 (51.4%)	22 (42.3%)	39 (66.1%)
No response	3 (8.6%)	6 (11.5%)	-
N =	35	52	59

X^2 = 13.23 probability w/6 degrees of freedom = .04

However, it is to be noted that chi square is inflated because of the loading of "no responses" on the Langer Tribal Group.

TABLE 47

PERCEIVED INTEREST BY COMMUNITY IN RESPONDENTS' EDUCATION BY SELECTED TARGET GROUPS

Interest Levels	Langer Non-Tribal	Langer Tribal	Reservation Control Group
No Interest	7 (20.0%)	7 (13.5%)	8 (13.6%)
Very Little Interest	14 (40.0%)	10 (19.2%)	8 (13.6%)
Some Interest	8 (22.9%)	16 (30.8%)	20 (33.9%)
Considerable Interest	1 (2.9%)	4 (7.7%)	12 (20.3%)
No Response	5 (14.3%)	15 (28.8%)	11 (18.6%)

$X^2 = 18.16$ with 8 degrees of freedom probability = .02.

The pattern that manifests itself in this table is repeated in all social agent categories. This holds for "relatives," school teachers and officials, previous employers and present employers, and co-workers. What appears to occur is a generally elevated rating on the part of the Reservation Control Group for all social agents. One might also inquire whether this effect may be a function of the number of level four education respondents in the Reservation Control Group.

The control runs reveal almost identical patterns for each social agent. For instance, where "immediate family" agents were perceived as exhibiting "considerable interest" by 66.1% of the responses of the full Reservation Control Group, the adjusted level (level four people excluded) recorded 64.7%. Where the "community" agents were registered as recording a 20.3% response indicating "considerable interest" for the full group, the adjusted group of 34

registered 20.6%. Adjustment of the group appeared not to change any patterns.

F. The Life Environments Scale and Responses of Selected Target Groups

The researcher thought it appropriate to analyze the responses of the three selected target groups in regard to the life environments scale where the respondent was to rate the importance of some ten different elements to be considered in selecting one's permanent home. These elements included (1) being near to one's family, (2) being near to one's people (ethnic group), (3) good schools, (4) near job opportunities, (5) cultural opportunities, (6) benefit of city life, (7) being near institutions of higher learning, (8) technical job opportunities, (9) scenic land, unspoiled environment, and (10) good people, low crime rate.

The pro-educational indicator will be considered first (items 3 and 7), then presentation of data will be made in regard to only those items which showed a differential response between the target groups.

TABLE 48

IMPORTANCE OF GOOD SCHOOLS TO SELECTED TARGET GROUPS

Level of Importance	Langer Non-tribal	Langer Tribal	Reservation Control Group
Somewhat Important	1 (2.9%)	1 (1.9%)	2 (3.4%)
Important	6 (17.1%)	6 (11.5%)	13 (22.0%)
Very Important	27 (77.1%)	44 (84.6%)	41 (69.5%)
No Response	1 (2.9%)	1 (1.9%)	3 (5.1%)
N =	35	52	59

The Langer Tribal Group is shown to place the highest valuation of the three groups in good schools but the difference is not significant. A chi square of 3.67 is computed for the matrix indicating a probability of at least .70.

Similarly the evaluations placed on accessibility to institutions of higher learning did not produce any differential response. In fact, aggregate response of the three groups are almost identical in percentages.

TABLE 49

IMPORTANCE OF INSTITUTIONS OF HIGHER LEARNING TO RESPONDENTS OF SELECTED TARGET GROUPS

Importance Levels	Langer Non-tribal	Langer Tribal	Reservation Control Group
Not Important	2 (5.7%)	5 (9.6%)	2 (3.4%)
Somewhat Important	8 (22.9%)	6 (11.5%)	7 (11.9%)
Important	10 (28.6%)	17 (32.7%)	25 (42.4%)
Very Important	15 (42.9%)	22 (42.3%)	23 (39.0%)
No Response	-	2 (3.8%)	2 (3.4%)
N =	35	52	59

Those considering institutions of higher learning very important constitute a proportionally similar bloc within each group. The null hypothesis is indicated with a chi square of only 3.86 with a probability of .80. Incidentally, a respondent's educational background does not materially affect the evaluation of importance. Looking at level four respondents only some 6 (66.7%) of the Langer Non-tribal personnel rated this element most important, 2 (50.0%) of the Langer

Tribal Group rated it that highly as did 10 (90.0%) of the Reservation Control Group's Level Four sub-group.

Two elements provided interesting patterns. The element of "being near one's people" and the element of "benefits of city living." Both items touch tangentially upon the issue of preferring to remain on or near the reservation. The item of being near "one's family" also is another unobstrusive measure of reservation attachment, particularly considering the more extended family which the concept involves for tribal residents.

TABLE 50

IMPORTANCE OF "BEING NEAR ONE'S PEOPLE" TO RESPONDENTS OF SELECTED TARGET GROUPS

Importance Levels	Langer Non-tribal	Langer Tribal	Reservation Control Groups
Not Important	15 (42.9%)	13 (25.0%)	8 (13.6%)
Somewhat Important	10 (28.6%)	12 (23.1%)	12 (20.3%)
Important	8 (22.9%)	19 (36.5%)	25 (42.4%)
Very Important	1 (2.9%)	6 (11.5%)	11 (18.6%)
No Response	1 (2.9%)	2 (3.8%)	3 (5.1%)
N =	35	52	59

X^2 = 15.421 with 8 degrees of freedom probability = .05

The pattern is actually below the accepted level of significance (.05) because of the inflation of the chi square through inclusion of the no response category by the existing program. However, it still demonstrates the higher propensity of both tribal groups to value this element more highly than the non-tribal respondent.

The element of "benefits of city life" revealed a general weighting of the "less than important" categories for all groups. Strongest loading on the "non important categoress" are seen in the Reservation Control Group inferring that the respondents have strong attachments to their environment.

TABLE 51

IMPORTANCE OF BENEFITS OF CITY LIFE AND RESPONSES OF SELECTED TARGET GROUPS

Level of Importance	Langer Non-Tribal	Langer Tribal	Reservation Control Group
Not Important	7 (20.0%)	9 (17.3%)	18 (30.5%)
Somewhat Important	19 (54.3%)	17 (32.7%)	14 (23.7%)
Important	6 (17.1%)	14 (26.9%)	16 (27.1%)
Very Important	3 (8.6%)	8 (15.4%)	8 (13.6%)
No Response	-	4 (7.7%)	3 (5.1%)
N =	35	52	59

A summary of the salience of these different elements may be summarized in two ways. One is a summary of the response of the three groups to the question of which element was most important. This is indicated in Table 52.

TABLE 52

MOST SALIENT ELEMENT BY SELECTED TARGET GROUPS

Element	Langer Non-tribal	Langer Tribal	Reservation Control Group
Being near family	4 (11.4%)	15 (28.8%)	10 (16.9%)
Near one's people	-	1 (1.9%)	4 (6.8%)
Good schools	13 (37.1%)	16 (30.8%)	12 (20.3%)
Job opportunities	6 (17.1%)	9 (17.3%)	14 (23.7%)
Cultural opportunities	1 (2.9%)	-	1 (1.7%)
Benefits of city life	-	-	-
Near institutions of higher learning	1 (2.9%)	-	3 (5.1%)
Technical job opportunity	2 (8.6%)	3 (5.8%)	1 (1.7%)
Unspoiled environment	3 (8.6%)	-	1 (1.7%)
Good people	4 (11.4%)	3 (5.8%)	3 (5.1%)
No response	1 (2.9%)	5 (9.6%)	10 (16.9%)
N =	35	52	59

Another measure is the percentage of "very important" responses registered for each element. These are given in Table 53.

TABLE 53

PERCENTAGE OF SELECTED TARGET GROUPS GIVING SALIENT EVALUATIONS TO LIFE ENVIRONMENT ELEMENTS

Elements	Langer Non-tribal	Langer Tribal	Reservation Control Group
Being near family	34.3%	57.7%	40.7%
Near one's people	2.9%	11.5%	18.6%
Good schools	77.1%	84.6%	69.5%
Job opportunities	62.9%	78.8%	69.5%
Cultural opportunities	14.3%	21.2%	30.5%
Benefit of city life	8.6%	15.4%	13.6%
Near institution of higher learning	42.9%	42.3%	39.0%
Technical job opportunities	45.7%	46.2%	33.9%
Unspoiled environment	40.0%	28.8%	35.6%
Good people	77.1%	71.2%	62.7%

"Good Schools" registers highest with both measures. In regard to this item and the one on higher institutions of learning, all three target groups manifested similar patterns of choice. The tribal groups rate ahead of the non-tribal groups in the family proximity item and the cultural opportunities item. The cultural opportunities item is in all likelihood interpreted in terms of tribal traditions. Both items reflect life environment elements associated with Reservation life.

VII. Parental Background and Secondary Student Performance

It is essential to include in the analysis an indicator of a linkage between parental occupational status and actual academic performance of their children. To this point we have presented only relationships between the labor environment variable and expressed attitudes. We can only infer that pro-education attitudes, if honestly supplied, will translate into attitudes and behavior on the part of children. The appropriate technique would be to identify the respondents of the target groups, identify their children for purposes of obtaining a measure of their academic achievement, and testing their own educational attitudes. In the interest of maximizing the privacy of respondents, they were not required to identify themselves. Respondents were considered only in terms of aggregate categories on the basis of different background characteristics. Thus we cannot establish any individual correlation between a respondent's identity and his responses.

The researchers with the cooperation of Dr. Al Koss, Director of Counseling and Guidance at the Turtle Mountain Community School were able to procure an indicator of student achievement that could be associated with the occupational background of the parents.

Grade point averages were obtained for high school students of Langer plant employees, students with parents working for the Bureau of Indian Affairs, the Public Health Service, and the School

District itself. In addition a sampling (every fourth child) of the grade point averages of students with unemployed parents was provided.

Only eight students represent the children of Langer Plant employees.* There are four more students at Rolla High School (we were not successful in obtaining information on their academic performance and in any case it may not have been comparable). This appears to be a very small sample. However, it appears that where Langer employees are recorded as having children, most of these children are in grades 1-8. For those having long terms of service, their offspring are adults. Thus, we have too small a population in which to base any significance tests.

In contrast to the eight students from the Langer Plant, there was a population of 21 students who had a parent who worked at the Public Health Service, a population of 48 students who had a parent who worked for the Bureau of Indian Affairs, population of 25 students who had a parent who worked for the School District (teachers' aides, bus drivers, cooks, custodians) and of 66 students whose parents were both unemployed (representing 264 such students). All students are tribal and attend Belcourt High School located on the reservation.

The results of the Grade Point analysis are in the table below.

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* A discrepancy exists between the Langer plant employee reporting children in high school (15) and the number listed at the school (8). There are four students from two Langer-tribal families attending Rolla High School. This, however, leaves unresolved a considerable discrepancy.

TABLE 58

GRADE POINT AVERAGES OF BELCOURT HIGH SCHOOL CHILDREN WITH DIFFERENT PARENTAL OCCUPATIONAL STATUS

Students with Parents Employed	N	Mean Grade Point	SD*
Langer Plant	8	2.62	.544
BIA Employment	45	2.30	.669
Public Health Service	21	2.02	.708
School District	25	2.35	.660
Unemployed	66	2.22	.804

* Standard Deviation

The grade point analysis does reveal a higher grade point average for the Langer Tribal Group and the lowest grade point average for those having unemployed parents as might be expected. However, in the case of the Langer parents, the number is small (although the Standard Deviation is smallest): while in the case of the unemployed parent group, the standard deviation is quite large. Thus, 68 percent of the unemployed parent group have grades from 1.42 to 3.00.

Another way of noting academic achievement is to note among the various parental groups the proportion of students who excel. Excellence for purposes of our investigation will consist of those students who have a grade point average of 3.00 or better. The number of students among the Langer group is 2 (25%), among those who work at the Public Health Service is 4 (19%), among those whose parents are employed at BIA is 9 (20%), among those whose parents are employed at the school district is 7 (28%), and among those whose parents are unemployed, the number is 10 (15%). Parents employed by the school district appear to have the best record.

The information which we accumulated permitted us to test another hypothesis dealing with parental labor status and academic achievement of children and that is the hypothesis that there is a difference between the grade point average of students whose parents are double breadwinners, single breadwinners or unemployed. Distinctions can also be made between students of parents, the breadwinner of which is the mother, and those where the breadwinner is the father. It is a question as to whether higher achievement would be demonstrated in those families where both parents are employed or where the father is the sole supporter. It is to be noted that for the eight high school students who have a parent who is employed at the Langer Plant, the parents are in all cases both employed. The grade point averages are given in Table 55.

TABLE 55

GRADE POINT AVERAGES OF BELCOURT HIGH SCHOOL STUDENTS WITH DIFFERENT FAMILIAL LABOR STATUS

Students with Parents:	N	Mean Grade Point	Standard Deviation
Employed at Langer Plant	8	2.62	.544
Both parents employed (BIA, PHS, School Dist.)	47	2.28	.673
Mother only employed (BIA, PHS, School Dist.)	18	2.12	.746
Father only employed (BIA, PHS, School Dist.)	24	2.33	.665
Both Unemployed	66	2.22	.804

The results indicate that the least motivating situation would appear to be where the mother is the sole support of the family. Since the families comprise a portion of employment groups originally

considered an adjustment of the mean grade point averages of each occupational group can be made to reflect exclusion of the students whose mother is sole familial support.

VIII. Relationship Between Parental Background and College Attendance of Turtle Mountain Reservation Enrollees

To further determine the extent of the relationship between parental background (status and occupational level) and ultimate educational aspirations of their children, a survey can be made of known college students as to parental background. Such a survey is at least possible for all those aspiring students who take advantage of the BIA Student Post-secondary Grant program which make up any deficits between earnings and educational expenses for accepted applicants. The grant program is available to all enrolless of Indian tribes who demonstrate one-eighth Indian ancestry.

The Education office of the BIA processes all applications for such grants and the BIA Education Office at Belcourt had a listing of all students enrolled with the Turtle Mountain Tribe who received federal grants for the year 1973-74. Parental backgrounds were supplied by the administrative assistant for as many of the applicants for which such information was known.

During the year 1973-74 some 301 Turtle Mountain enrollees were taking advantage of the student grants program. However, a great many of the enrollees in the program had moved away from the area and had lived away for many years, in many cases all their lives. Of this category, there was little or no existent information on parental labor backgrounds. The great number of such enrollees does testify to the high mobility of the younger generation away from the Turtle Mountain Reservation. The extent of this mobility is indicated by the geographic extent of the universities and colleges attended by the recipients.

TABLE 56

COLLEGES AND UNIVERSITIES BY STATE
ATTENDED BY TURTLE MOUNTAIN TRIBAL ENROLLEES

Institution	Enrollees
North Dakota Colleges and Universities (UND, NDSU, Wahpeton Science, Minot State, Valley City State, Lake Region Junior, Mary College, NDSU Bottineau, UND Williston)	165
Minnesota Colleges and Universities (UM, Bemidji State, Moorhead State, St. Cloud State, McAllistar)	22
Montana Colleges and Universities (Univ. of Montana, Eastern Montana, Montana State, Northern Montana, Eastern Montana)	22
Washington (Univ. of Washington, Washington State, Eastern Washington, Central Washington, Seattle Central, Univ. of Puget Sound, Tacoma Community, Mt. Hood, Ft. Lewis College, Evergreen State College, Everett Community)	21
Oregon Colleges and Universities (Southern Oregon, Eastern Oregon, Univ. of Portland, Portland State, Portland Community College, Oregon Tech. Institute)	9
South Dakota Colleges and Universities (U. of SD, Black Hills State, Huron College, Aberdeen State College)	6
Wisconsin Colleges and Universities	5
California Colleges and Universities	5
Utah Colleges and Universities	5
Others: (Ranges from Ivy League Colleges as Amhurst and Dartmouth to Haskall Indian Junior College)	50

The pattern shows a great deal of interest in pursuit of higher educational goals on the part of both resident young people and emigrants from the area. The impact of the BIA Educational Grant program appears considerable. Applications for the school year 1974-75 are also considerably over last year's record. Key to the utilization of the legislation is the knowledge of its benefits and information appears to have been disseminated well (in terms of absolute numbers) to those whose contact with their enrolled tribe is minimized by time and distance. One, however, can only speculate on how many or what proportion would take advantage of benefits under the program.

Of the 301 enrollees designated as recipients of higher educational grants some 108 could be characterized as emigrants. No parental occupational information was available on another 57 grant recipients attending ND universities or colleges. In some cases the administrative assistant was not able to associate the grant recipients with known families on the reservation, but in most cases it was noted that the recipients were attending Lake Region Junior College, Mayville College, UND Williston, and Minot State College; emigration to those immediate areas away from the Reservation can be inferred for a substantial number of these personnel.

Identification of parents (by occupational designation) was made of 136 students listed as grant recipients for 1973-74. In several instances a person was the parent of several students. The occupational category is checked once for each student so an occupational category may reflect several multiple designates for the same parent. The breakdown is given in Table 57.

TABLE 57

OCCUPATIONAL LABELS FOR PARENTS OF
TURTLE MOUNTAIN COLLEGE GRANT STUDENTS

Occupation	# of Students
Parents work for Bureau of Indian Affairs	16
Parents work other Federal programs or Agencies (Community Action Program)	15
Parents employed by local schools	9
Parents working at Public Health Service	5
Tribal positions	2
Parents working at William Langer Jewel Plant	7
Parents are State Employees (working at San Haven Sanitorium)	3
Parents unemployed (including retired, social security, welfare, or ADC recipients)	20
Parents in training program	2
Parents are farmers	16
Self-supporting (parents deceased)	12
Parents are self-employed. In small business	5
Working class occupations - service occupations (nurses aid, barber, bartender, secretary, night watchman)	5
Blue Collar occupations (carpenter, railroad, construction, plumber, trucker)	11
Part-time (seasonal occupation--generally road work for BIA--May to Sept.)	8
Foster parents (no other information available)	4

The summary shows the diverse familial backgrounds of the student grant recipients. While it might seem that the number of students who work at the Langer Jewel Bearing Plant is small, it must be remembered that survey data shows only ten workers at the plant with children of college age or adult status. Thus some six of those in position to have college attending dependents have sent their dependents to college.

The recipients span the spectrum of occupational backgrounds. There is a respectable number representing families that have experienced a chronic unemployed status or whose household heads only take part in seasonal occupations. These seasonal occupations generally represent working on BIA road maintenance. These jobs are available only from May through September.

If we combine figures for BIA employees, Public Health service employees, other federal agency employees (post office, Community Action Programs, Housing and Urban Development) and local school district employees, we find that the cumulative category of "government employee" is the most frequent background for all grant recipients. This suggests the relevance of stable merit based occupations to educational aspirations of the dependent of tribal persons. On the other hand this may simply reflect more awareness and better information dissemination in the federal grants program.

In reviewing the data on parents in the government employee category it was also noted that where head of the household was in one government sub-category the other parent also had an independent career in government employment. Three of the heads of household working for the Public Health Service had spouses working for the BIA, the local school and CAP. Three heads of household working for BIA had spouses

working at the school or Public Health Service and heads of household working in other federal agencies had spouses working in some capacity for BIA and local schools. The dual bread winner family may simply represent the more affluent environment conducive to advanced education aspirations or it may also reflect reinforcing achievement influences on the part of both parents. Two workers at the Jewel Plant also had spouses working at the BIA.

One must also consider the possiblity that any discrimination between parental occupation categories as academic in light of the available opportunities under the educational grants program. Without the assistance of the BIA policy the opportunity to attend college for dependents is unlikely whatever the motivation toward attendance. With the program the opportunity is high and application for and assistance becomes a matter of course where motivations toward attendance pass a minimal threshold. The continued existence of the program appears essential to the maintenance of the new higher levels of college attendance.

IX. Conclusions and Recommendations

This study attempted to test the existence of a difference between selected labor environment groups in terms of achievement and educational aspirations. The presentation of data to this point has involved a test of the relationships between various background variables (including the labor environment variable) and various indicators of educational aspiration and achievement.

With the exception of a few selected items such as the expectation of government aid for their children, an assessment that the costs of education are too high and basic interest in tribal affairs, a very similar distribution of response exists for the three select target groups. Where significant differences exist between groups it is in regard to specific situations that place attitudinal constraints on the group. For instance, the availability of BIA post-secondary education grants would necessarily impel a high expectation of a post-secondary education for children of tribal parents. One could say that the new post-secondary education grants have revitalized expectations and aspirations among tribal residents.

Various explanations may be put forward to account for the similarity of patterned responses among the selected groups. One is that the instrument itself could have been constructed to exhibit more discriminatory power across all groups. However, even where individual items prove to be good dichotomous discriminators, the response patterns manifested themselves across the selected target groups.

That is, the variance is within rather than between groups.

The other explanation is that the three select target groups reflect very similar outlooks and views toward education and their children's future education. This may provide the explanation for similarity in the distribution of responses. While Reservation Control Group members may have lived in an environment of chronic unemployment, most respondents exhibited a labor history. Most respondents belong to the lower middle class. Their children attend schools similar in level of instruction to the non-tribal schools in the area (although the new Level I accreditation of the Belcourt Community School indicates improved instruction for tribal students). All the inhabitants of the region, whether tribal or non-tribal, are affected by regional agricultural conditions and similar isolation. Certainly non-agricultural and non-tribal workers in the community face a similar economic environment--a limited number of retail and blue collar positions in public service and agricultural support occupations.

The tendency of the respondents in the study to respond positively to most items can be accorded several explanations. One is that the items involve a response set impelling the most favorable response on the part of the respondents. Another explanation is that the items test diffuse support of educational objectives. That is, where the item does not call upon a specific commitment toward an educational objective, the respondent will support the hypothetical commitment. As long as the expectation does not involve material costs, the psychological costs of agreeing with a pro-education stance is low. A talk with Dr. Koss on a truancy follow-up project indicated

that parents when counseled about their children's absenteeism expressed concern over their children's behavior and supported their youngster's continued pursuit of an education. However, once the counselors had talked with the parents, there appeared to be little follow-up to change the behavior of their children. The same type of response may be operative here: support of education values in the abstract but little implementation.

Finally, it should be noted that the analysis of data gathered in this study remains to be pursued at different levels. An analysis of variance involving the dependent variables in the study computed for the three selected target groups is being studied at the present time. Generally the results presented by the non-parametric analysis are confirmed.

The analysis of the data to this point has not been exhaustive. Several refinements of both data and analysis remain to be pursued. For instance, inflated chi-squares due to inclusion of the no response column by the statistical package (SPSSH) must be adjusted by pulling all no response cards for a given variable and running the program one variable at a time. Similarly, more refined results may be achieved by applying the statistical package to a reduced population of respondents eliminating the "0" respondents. Also the education level material can be recoded to make a discrete distinction between high school graduates and non-graduates. However, all these refinements in all likelihood would not materially affect the results. They would certainly not overturn existing findings.

The study pointed to an improved successor study which may be taken at a future time. In applying the measures of achievement and aspiration to these populations, researchers should give more attention

to the question of linkage between achievement attitudes of parents and the attitudes and measures imperative that this BIA Post-Secondary grant program be continued at its present level. It is important, however, that realistic expectations be generated. "College" by itself and all "college courses" by themselves do not guarantee an employable future, although they improve the chances for same. The role of vocational education and trade schools should be publicized. Certainly, those high school graduates who have some plans are more vocationally oriented.

The effect of the Langer Plant upon employee attitudes toward education and aspirations is difficult to measure. The children perform similarly to those of other groups; there is a similar level of expectation of post-secondary education. It is to be noted that the Langer employee group report ten of their children in college. This is from a population of college age of 18. It would appear that the Langer Plant families are taking good opportunity of the post-secondary grants program.

In conclusion, it may be said that this study provided the researchers with the preliminary groundwork to become involved in a more rigorous study. Our omissions have pointed the way to a more precise and relevant instrument. This study has developed into a satisfying pilot study which should be employed to test like situations on a greater scale.

FOOTNOTES

[1]See for example Richard C. Bontwell, "A Comparison of Attitudes and Values Between Indians and Non-Indians in an Institution of Higher Education. Independent Monograph. 1972.

[2]See for example Bruce A. Birchard, "Attitudes toward Indian Culture and Its Incorporation in the School Curriculum National Study of American Indian Education. Senes IV. No. 10. Final Report. December 1970.

[3]Charles Meyer, "A Comparative Study of Indian and Non-Indian Ideas of Self-Concept. Masters Thesis Paper, Northern State College. Aberdeen, South Dakota. May 1970. Also see L. Madison Coombs. Educational Disadvantage of the Indian American Student. Unpublished monograph. July 1970.

[4]See for example A.C. Goucher, The Dropout Problem Among Indian and Metis Students. Dome Petroleum Ltd., Calgary, Alberta

[5]See John Ray Hamblin, "A Study of some of the Important Factors which Encourage Indian Students in Apache and Navajo counties in Arizona to seek a Higher Education after High School Graduation." Master Thesis. Brigham Young 'niversity. Provo, Utah. 1963; Also see Eddie F. Brown, College Recruitment of the American Indian. Paper presented at EPDA Short term Summer Institute. University of California at Los Angeles. July 1971.

[6]Bruce A. Birchard, "How Indian Students and Parents Evaluate Their Schools: Perceptions of Indian Education." The National Study of American Indian Education. Senes IV. No. 11. Final Report December 1970. Also by Bruce A. Birchard, "Attitudes and Understanding and Interactions of Students, Parents, Teachers, and Community Leaders: Perceptions of Indian Education." National Study of American Indian Education. Senes IV. No. 12. Final Report. December 1970.

[7]Wayne L. Larson, "A Comparative Analysis of Indian and Non-Indian Parents' Influence in Educational Aspirations, Expectations and Preferences and Behavior of Indian and Non-Indian High School Students in Four High Schools. Independent Monograph. Oct. 1971.

[8]Wayne L. Larson, "A Comparison of the Differential Effect of Ethnicity and Perception of Family Income in Educational Aspirations. Preparations and Parental Influences-Attempts of Indians and Non-Indian Students in Four Rural High Schools in Montana. Independent Monograph. Oct. 1971.

[9]J.J. Wilson. Educational Survey. Devils Lake Sioux Tribe, Fort Totten, North Dakota. 1965.

[10]Report of Labor Force. Bureau of Indian Affairs. Belcourt, North Dakota. Prepared by Gary Heitman.

[11]North Dakota Indian Affairs Commission. Fact Sheets on the Turtle Mountain Indian Reservation. Home of Turtle Mountain Chippewa Tribe. Bismarck, North Dakota. 1968.

[12]Based on W. Glassey. The Attitudes of Grammar School Pupils and their Parents to Education. British Journal of Educational Psychology Vol. 15, pp. 101-104 (1945). Reprinted in Marion E. Shaw and Jack M. Wright. Scales for the Measurement of Attitudes. McGraw Hill: New York, 1967.

[13]The virgin scale follows the format of the Mitchell attitude toward Education scale which includes pairs of items involving a response to A: a more vigorous attitude and B: a less vigorous attitude relating to the same situational context. See C. Mitchell "Do Scales for Measuring Attitudes have any Significance?" Journal of Educational Research. vol. 34 (1941) pp. 444-452.

[14]See F.P. Kilpatrick and Hadley Cantril, "Self-Anchoring Striving Scale: A Measure of Individuals' Unique Reality Worlds." Journal of Individual Psychology, 16 (November 1960). Also see Hadley Cantril, The Patterns of Human Concerns. Rutgers University Press, Rutgers, New Jersey, 1965.

[15]Allen B. Koss. The Use of the Vocational Preference Inventory with a North Dakota Indian Population. Doctoral Dissertation, University of North Dakota. 1971. See pp. 101, 124.