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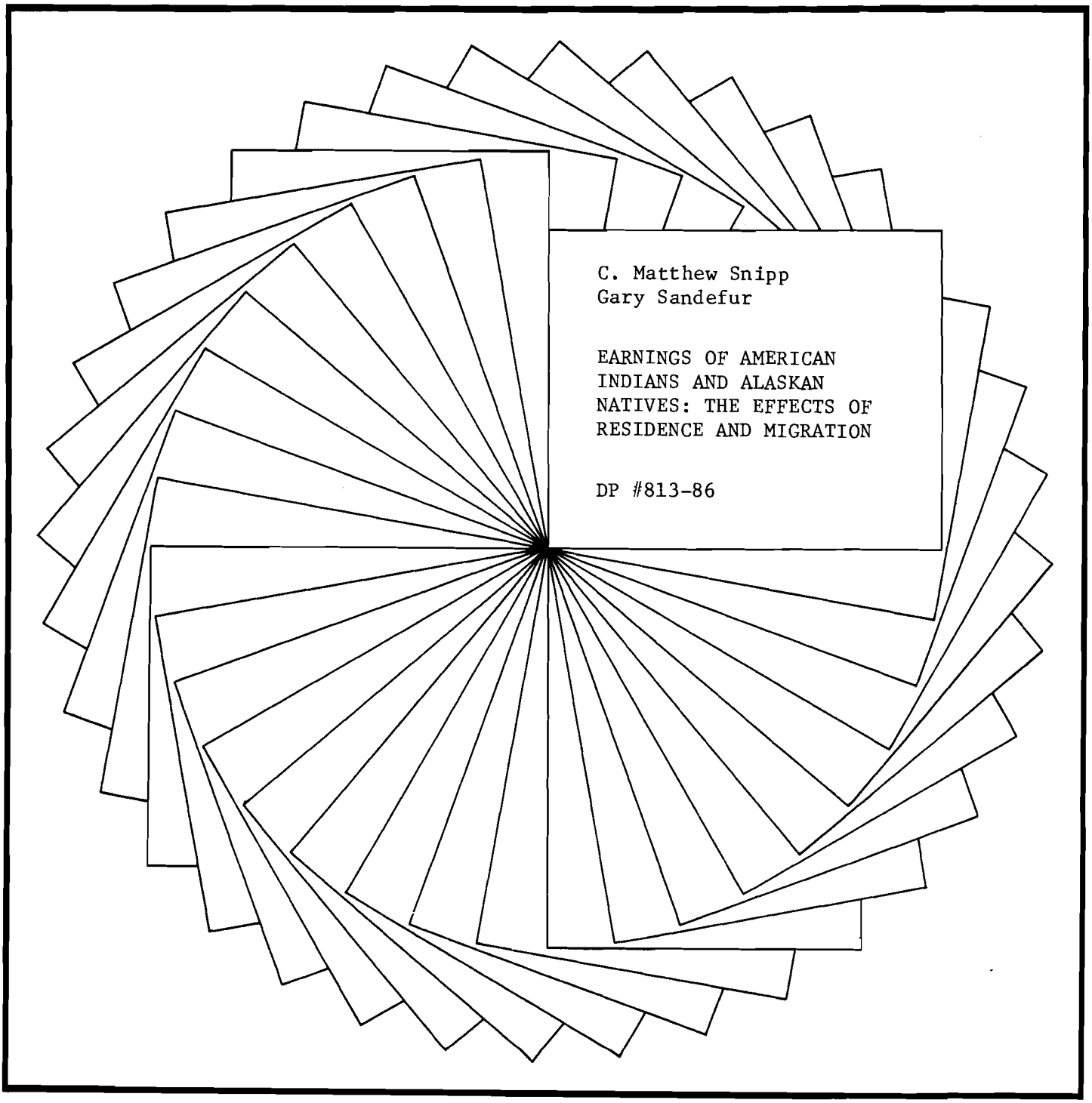

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EARNINGS OF AMERICAN INDIANS AND ALASKAN NATIVES: THE EFFECTS OF RESIDENCE AND MIGRATION

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Earnings of American Indians and Alaskan Natives: The Effects of Residence and Migration

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Abstract

This paper examines the effects of residence in metropolitan areas and migration from nonmetropolitan areas to metropolitan areas on the earnings of American Indian and Alaska native householders aged 25-54. The results indicate that: (1) the earnings of metropolitan Indians are markedly higher than those of nonmetropolitan Indians, but the earnings of nonmetropolitan-to-metropolitan migrants are very little more than those of nonmetropolitan stayers; (2) education has significant effects on earnings for metropolitan Indians and Indians who migrate from nonmetropolitan to metropolitan areas, but not for nonmetropolitan Indians; and, (3) the difference in earnings between metropolitan and nonmetropolitan Indians is due both to the higher levels of human capital of metropolitan Indians and better opportunities in metropolitan areas.

Earnings of American Indians and Alaskan Natives: The Effects of Residence and Migration

If we define the success of a government policy in terms of the extent to which it achieves its goals, then one of the most successful policies ever pursued by the U.S. government was its effort in the 1800s to move American Indians away from centers of population, commerce and industry. (The term "American Indians" refers to Alaskan natives as well throughout the paper.) Through federal actions, American Indians were successfuly isolated in reservation enclaves distant from the mainstream of American society. This isolation has had both positive and negative consequences.

One positive consequence was that some American Indian groups have been able to protect and maintain their traditional ways of life. In areas such as the Navajo reservation in Arizona, Utah, and New Mexico, the Sioux reservations in South Dakota and some rural areas of Oklahoma, Indian people continue to communicate in traditional languages and to preserve traditional cultural practices (Wax, 1971). The major negative consequences of isolation have been poverty, unemployment, and poor health. In 1979 one-half of the Indians residing on the Navajo reservation had incomes below the poverty line. During that same year, 15 percent of rural American Indians were unemployed, compared to 6.6 percent of rural whites and 10.7 percent of rural blacks. The poor health and low life expectancy of American Indians (coupled with their relatively high fertility) have produced a very young American Indian population. The median age for rural American Indians was 21.9 in 1979 compared to 24.4 for rural blacks and 30.8 for rural whites (U.S. Bureau of the Census, 1983).

In recent years American Indians have become less isolated and have begun to move to urban and metropolitan areas. The 1980 Census showed that for the first time close to one-half of American Indians lived in urban areas compared to 72 percent of white Americans and 85 percent of black Americans. Urban Indians are substantially better off than rural Indians, though the socioeconomic condition of urban Indians does not approach that of urban whites.

The purpose of this paper is to assess the impact of location in nonmetropolitan areas, and migration from these areas to metropolitan areas, on the earnings of American Indian male and female householders. We focus on earnings because this is the major source of income for most Indian households. We compare the earnings of metropolitan Indians to those of nonmetropolitan Indians, and the earnings of migrants from nonmetropolitan to metropolitan areas with those of nonmetropolitan stayers. In addition we compare the processes through which individual characteristics affect earnings for these groups of Indians.

LOCATION, MIGRATION, AND EARNINGS

There has has been very little research on American Indian earnings or wages. Existing studies indicate that in 1976, there were no significant differences between Indian male and black male hourly wages, but there were significant differences between Indian and black wages on the one hand and the wages of white men on the other (Sandefur and Scott, 1983). Further, this research demonstrated that a substantial proportion of the wage differential between Indians and whites was due to lower levels of education and health for Indians, whereas the wage differential

between blacks and whites could not be explained by such factors (Sandefur and Scott, 1983). Other research with 1976 data has shown that American Indian and black men were less likely to work and worked fewer hours in 1975 than did white men. American Indians were more likely to have health limitations than blacks and were more likely to be in peripheral industries (e.g., agriculture) than were blacks and whites (Sandefur and Scott, 1986).

For some time policymakers have felt that at least part of the explanation of low Indian earnings is geographical isolation. The hope that movement to metropolitan areas would increase the earnings and economic well-being of American Indians led to the development of the Bureau of Indian Affairs Direct Relocation Program. This program was initiated in 1950 and was continued until 1984, when it was discontinued. During the War on Poverty, the name of the program was changed to the Employment Assistance Program. This program provided financial and other assistance to those American Indians who wished to move from reservation and isolated rural areas to large metropolitan areas where more and better employment opportunities were supposedly available.

Although evidence on the impact of this program is limited and difficult to obtain, since much of it consists of unpublished BIA records, Sorkin (1971) found that individuals who moved were economically better off than those who remained on reservations. This is consistent with research on the consequences of rural-to-urban and nonmetropolitan-to-metropolitan migration for the general population. Rieger (1972), for example, found that rural-to-urban migrants had higher occupational prestige than nonmigrants who remained in the rural area. Although there

has been no research on American Indian rural-to-urban migration, one study using the 1976 Survey of Income and Education found that Indians who were interstate migrants were more likely to be employed than those who were not (Sandefur, 1986). The age and educational selectivity of nonmetropolitan to metropolitan migration (Greenwood, 1975) is reflected in Indian interstate migration as well (Sandefur, 1986).

The efforts of the American government to encourage nonmetropolitan-to-metropolitan migration among American Indians was based on assumptions about the nature of metropolitan labor markets and the consequences of nonmetropolitan-to-metropolitan migration that had not been tested within the context of the American Indian population. Some of these assumptions can be stated as hypotheses which can be subjected to empirical tests. The principal assumption was that labor markets in metropolitan areas provided better opportunities than those in nonmetropolitan areas. Not only should average annual earnings be higher for metropolitan Indians than for nonmetropolitan Indians, but equal levels of human capital should bring higher earnings in metropolitan areas than in non-metropolitan areas. In addition, individuals who migrate from non-metropolitan to metropolitan areas should receive "higher returns" to their human capital than those who remain in nonmetropolitan areas.

Although the data used in this analysis have few measures of human capital, we use four: education, health, language use, and veteran status. We expect that these characteristics will be valued more in metropolitan areas and bring higher premiums to recent migrants and long-term residents alike. We will examine these ideas by systematically testing

the following hypotheses about differential returns to human capital in metropolitan and nonmetropolitan localities. Our first hypotheses specify:

H(1A): The effect of human capital on the earnings of American Indians is higher in metropolitan than in nonmetropolitan areas.

H(1B): The effect of human capital on earnings is higher for those who migrate from nonmetropolitan to metropolitan areas than for those who remain in nonmetropolitan areas.

Another major assumption underlying relocation policy was that metropolitan/nonmetropolitan differences in American Indian earnings were not simply due to the selectivity of migration, i.e., these differences could not be completely explained by the higher levels of human capital possessed by migrants and metropolitan residents. This implies that Indians living in metropolitan areas and those who migrate from nonmetropolitan to metropolitan areas will have higher earnings even after controlling for differences in human capital and other individual characteristics:

H(2A): The earnings of American Indians in metropolitan areas are higher than those of American Indians in nonmetropolitan areas, net of human capital and other individual characteristics.

H(2B): The earnings of American Indian migrants from nonmetropolitan to metropolitan areas are higher than those of American Indians who remain in nonmetropolitan areas, net of human capital and other individual characteristics.

DATA AND METHODS

Data

The data for this analysis are taken from the 1980 Public Use Microdata Sample (PUMS-A) collected by the U.S. Bureau of the Census as

part of the 1980 Census. From this file, we selected householders aged 25 to 54 who reported their race as American Indian, Eskimo, or Aleut.[1] This age group is often referred to as "prime aged," because this is the period in life when individuals are most likely to work as opposed to being in school or retired. We focus our attention on householders, because they are usually the primary source of household income. In most households, "householders" are nominally the "heads of households" and they are identified as the person who completed the 1980 Census questionnaire for his or her household. For this reason, income data for householders are considered more reliable than for other members of a household. Most householders are men, and over 70 percent of our sample is male.

Using these criteria we produced a sample of 14,233 individuals; about 9,200 are residents of metropolitan counties or county groups that include metropolitan localities, leaving the balance in nonmetropolitan areas. One important factor to note is that the majority of American Indian householders reside in metropolitan areas. Approximately 65 percent of American Indian householders reside in metropolitan areas or in county groups that include metropolitan areas that are not separately identified.[2] The fact that the majority of Indian householders live in metropolitan areas may seem surprising given our earlier comment that a slight majority of American Indian people live in rural areas. In large measure, this reflects the higher fertility and larger households of nonmetropolitan Indians.

In the portion of the analysis in which we examine the effects of migration from nonmetropolitan to metropolitan areas, we must use a

smaller sample, since the PUMS data report migration status (change in residence between 1975 and 1980) for approximately one-half of the complete sample. The reliability of our estimates could be improved if we had access to a larger sample, but the 1980 PUMS is presently the single largest sample of American Indians available. Most data sets collected from national samples (e.g., the Panel Study of Income Dynamics, the Current Population Surveys and the National Longitudinal Surveys), contain too few American Indians for analysis.

Measures

Our work is constrained by the availability of data in the 1980 PUMS file, but this sample offers a variety of socioeconomic characteristics relevant to models of earnings. The available data include measures of personal characteristics, family characteristics, measures of earnings and labor force participation, and information about current residence and residence in 1975. The variables that we use and their measures are given in Table 1. We comment briefly on those variables that are not self-explanatory.

Age is frequently used as an indicator of labor market experience. It is a less reliable indicator for American Indians than for white men because American Indians experience high rates of unemployment, intermittent employment, and low rates of labor force participation. Unfortunately, a more reliable substitute is not available.[3]

Language use is important because it indexes the extent to which an important part of traditional culture is retained, and it shows the

Table 1

Variables and Measures

Variable	Measure
In Labor Force	1=individual reported working or seeking work in 1979; 0=otherwise.
Weeks Worked	Self-reported total number of weeks worked in 1979.
Earnings	Wage and/or salary earned during 1979.
Education	Years of completed schooling.
Disability	1=self-reported health condition that restricts an individual's choice of jobs or prevents him or her from working 35 or more hours per week; 0=otherwise.
Veteran	1=has served but is no longer serving in the military; 0=otherwise.
Non-English Language	1=individual usually speaks a language other than English at home; 0=otherwise.
Age	Age in years at last birthdate.
Female	1=female; 0=male
Single	1=not married; 0=married
Children Present	1=children under age of 6 in household; 0=otherwise.
South	1=residence in the South; 0=otherwise
Near Reservation	1=residence in a designated Census county group in which a reservation is located; 0=otherwise.
Metropolitan	1=residence in a metropolitan county or in a county group which contains metropolitan and nonmetropolitan counties; 0=otherwise.

degree to which Anglo culture has been adopted. Our argument is that the use of a non-English language, though beneficial in many respects, may be a disadvantage in the labor market. Veteran status is important because military service is another way in which American Indians are exposed to non-Indian culture, especially routine tasks, regimented time schedules, and strict lines of authority. Location on or near a reservation is important since in many respects, reservations are repositories of traditional culture.[4]

Methods

Sample selectivity bias is a problem in studies of earnings, since not all members of the sample have earnings to report (Heckman, 1979; Berk, 1983). Sample selectivity may bias estimates of coefficients such as the effect of years of schooling on earnings. To compensate for this bias, Heckman (1979) and Berk (1983) recommend including a special variable to control for a respondent's probability of being in the labor force. The variable we use is the expected probability of not being in the labor force predicted by a model of the determinants of labor force participation. We use logistic regression to estimate this model, retain the predicted probability of nonparticipation for each individual, and estimate the effects of the determinants of earnings with Ordinary Least Squares. We do not report the results of the logistic regression analysis, but they are available upon request.

RESULTS

Differences between Metropolitan and Nonmetropolitan Indians

Table 2 presents descriptive statistics for metropolitan and nonmetropolitan American Indian householders. The first three variables in the table refer to labor force activities and indicate that metropolitan Indian householders are "better off" than nonmetropolitan householders. More specifically, metropolitan householders are more likely to be in the labor force, work an average of three more weeks per year, and earn an average of $2125.6 more per year than do nonmetropolitan householders. In relative terms, nonmetropolitan Indian earnings are 81 percent of metropolitan Indian earnings.

The means for our human capital variables indicate that part of this difference in earnings may be due to the higher levels of human capital possessed by metropolitan residents. The mean education of metropolitan householders is 1.7 years higher than that of nonmetropolitan householders. A greater percentage of metropolitan residents have experience in the military, and a much smaller percentage use a non-English language at home. However, a slightly higher percentage of metropolitan householders than nonmetropolitan householders are likely to have a work-limiting disability (14.7 percent and 12.6 percent, respectively).

In other ways, metropolitan and nonmetropolitan Indian householders are very similar. They are approximately the same age; the mean age of metropolitan and nonmetropolitan householders is 37.3 and 37.7 years respectively. About equal percentages of metropolitan and nonmetropolitan Indian householders are women--28 percent and 25.1 percent respectively.

Table 2

Means and Percentages for Selected Characteristics of Metropolitan and Nonmetropolitan American Indian and Alaska Native Householders, Age 25-54

Variable	Metropolitan	Nonmetropolitan
Percent in the Labor Force	84.8	78.5
Weeks Worked in 1979	38.7 (19.2)	35.7 (20.5)
Annual Earnings (1979 Dollars)	11284.6 (10090.1)	9159.0 (9319.0)
Education (in years)	12.3 (3.2)	10.6 (3.9)
Percent with Limited Disability	14.7	12.6
Percent Military Veterans	36.7	27.2
Percent Using Non-English Language at Home	18.1	41.2
Age (in years)	37.3 (8.4)	37.7 (8.4)
Percent Females	28.0	25.1
Percent Single	39.7	33.3
Percent with Children Under 6	27.0	35.9
Percent Living in the South	29.3	25.5
Percent Living On or Near Reservation	28.1	64.3
N	9207	5026

Source: Public-Use Microdata Sample, 5 percent A File.

Note: The numbers in parentheses below the means are standard deviations.

There are other ways in which metropolitan and nonmetropolitan American Indian householders differ. The percentage of single metropolitan householders is 6.4 percentage points higher than the percentage of single nonmetropolitan householders. About 36 percent of nonmetropolitan Indian householders share their living quarters with children under 6 years of age, compared to 27 percent in metropolitan areas. A larger percentage of nonmetropolitan householders (64.3 percent) than metropolitan householders (28.1 percent) reside on or near Indian lands. The latter figure may seem surprisingly large. However, not all Indian reservations are located in remote isolated areas. Several small reservations (rancherias) are located in the Los Angeles metropolitan area; the Osage reservation adjoins the Tulsa, Oklahoma SMSA; and, the Tacoma, Washington SMSA includes the Puyallup reservation.

Metropolitan/Nonmetropolitan Differences in Labor Market Processes

The statistics in Table 2 show that there is a large earnings gap between metropolitan and nonmetropolitan American Indians. The questions to which we now turn deal with possible explanations of this gap. Hypothesis (1A) states that the effects of human capital on earnings will be stronger in metropolitan areas than in nonmetropolitan areas. To test this hypothesis, we estimate separate equations for earnings in metropolitan and nonmetropolitan areas and test for statistically significant differences between the coefficients across equations. Table 3 contains the results from a regression analysis of the determinants of earnings for American Indians residing in metropolitan and nonmetropolitan areas.

Table 3

Regression of 1979 Log Earnings (x 100) on Selected Characteristics of Metropolitan and Nonmetropolitan American Indian and Alaskan Native Householders, Age 25-54

Independent Variables	Metropolitan Householders (N = 9207)	Nonmetropolitan Householders (N = 5206)	t-test of Difference
Education	2.98**	1.87	1.10
	(0.31)	(0.96)	
Disability	4.16	-7.62	1.09
	(6.74)	(8.45)	
Veteran	3.81*	9.96**	-1.81
	(1.92)	(2.79)	
Non-English Language	-8.29**	-4.96	-0.98
	(2.12)	(2.64)	
Age	-0.25	-0.05	-0.54
	(0.29)	(0.24)	
Female	-15.89**	-23.75**	1.16
	(4.40)	(5.18)	
Single	-0.91	-4.01	0.64
	(2.88)	(3.88)	
Children Present	10.35*	2.63	1.66
	(3.39)	(3.20)	
South	-17.45**	-24.26	.41
	(2.00)	(16.43)	
Near Reservation	-2.72	1.73	-1.09
	(1.99)	(3.55)	
Weeks Worked in 1979	4.12**	3.77**	4.48**
	(0.05)	(0.06)	
Correction for Selectivity Probability of Being Out of the Labor Force	-125.10**	-27.35	-1.81
	(37.43)	(38.95)	
Intercept	791.42	724.32	
R^2	.580	.553	

*p < .05
**p < .01
Note: The numbers in parentheses are the standard errors of the coefficients.

The results indicate that there are no significant differences between metropolitan and nonmetropolitan Indian householders in the effects of the four human capital variables (education, disability, veteran status, and language usage). Education has a significant effect in metropolitan areas, but not in nonmetropolitan areas. The difference between these two effects is not, however, statistically significant. Neither coefficient for disability is significant. The effect of being a veteran is smaller in metropolitan areas than in nonmetropolitan areas, but this difference is not significant at the .05 level. The penalty for not speaking English (hence, the reward for speaking it) is significant in metropolitan areas, but not in nonmetropolitan areas. Again, the difference between the effects is not significant. In sum, there is no unequivocal evidence of higher returns to human capital in metropolitan areas.

There is clear evidence that wages (dollars per time worked) are higher in metropolitan areas. Weeks worked in 1979 has a significantly larger effect in metropolitan areas than in nonmetropolitan areas. This simply means that wages and/or salaries are higher in metropolitan areas, resulting in a greater return to each week worked. More precisely, these estimates show that employed urban Indians enjoy an increase in earnings for each week they work which is 9.3 percent larger than the earnings gained by their nonmetropolitan counterparts. Again, this is due to the structure of wage rates, which are higher in metropolitan than in nonmetropolitan labor markets. It also is worth noting that on average,

American Indians in metropolitan areas work more weeks than Indians in nonmetropolitan places and this further compounds the earnings gap.

Hypothesis 2A stated that differences in labor force characteristics (i.e., the personal characteristics of the resident labor force), are not completely responsible for metropolitan and nonmetropolitan earnings differences. This argument alleges that market conditions, as well as differences in the resident population, are responsible for earnings differentials. According to this perspective, American Indians residing in nonmetropolitan areas receive lower earnings because they participate in labor markets with limited opportunities. The higher wages in metropolitan areas suggest that this is, in part, true. To examine this hypothesis further, we used regression standardization to decompose the expected difference in metropolitan and nonnmetropolitan earnings (Althauser and Wigler, 1972; Parcel, 1979; Parcel and Mueller, 1983). This procedure decomposes the difference in earnings into three components: (1) a residence component, which is the amount of the difference due to the fact that the two groups live in two different areas; (2) a population composition component, which is the amount of the difference due to the measured characteristics of metropolitan and nonmetropolitan Indian householders; and (3) an interaction component, which is the amount of the difference due to the interaction of residence and composition. Table 4 shows the results of this exercise. The regression equations in Table 3 predict that the total difference in earnings between metropolitan and nonmetropolitan areas is $2,133. This is fairly accurate considering that the observed mean difference is about $2,126, a $7 difference.

Table 4

Sources of Earnings Differential among American Indian and Alaskan Native Householders in Metropolitan and Nonmetropolitan Areas

Component of Earnings Difference	Amount of Difference	Relative Contribution to Difference
Residence	$1558	73.0%
Population Composition	-1769	-82.9
Residence and Composition Interaction	2344	109.9
Total Difference	2133	100.0

The decomposition in Table 4 shows that labor market conditions associated with place of residence contribute a sizable share of the total earnings difference, about 73 percent or $1,558. This component is largely due to the higher wages in metropolitan areas (reflected in the coefficient for weeks worked) and unmeasured differences in the two types of labor markets that are reflected in the differences in the constant terms in Table 4. Surprisingly, the population composition component is negative; this indicates that differences in the characteristics of the labor force are not responsible for the earnings gap. Of course, nonmetropolitan residents would have higher earnings if they worked as many hours, had the same years of education, spoke English as well and were as likely to be veterans as metropolitan residents, but nonmetropolitan earnings would be lower than they currently are if the nonmetropolitan labor force included the same percentage of women, the same percentage of partially disabled individuals, the same percentage of single individuals and the same percentage of individuals without children as the metropolitan labor force. So, even though higher human capital helps explain part of the difference between metropolitan and nonmetropolitan earnings, overall differences in the composition of the labor force do not.

By far the largest component in Table 4 is the interaction component. This component is equal to 109.9 percent of the actual earnings difference. This indicates that it is the combination of a better-skilled labor force and better opportunities in metropolitan areas rather than one component alone that is most important in explaining metropolitan/nonmetropolitan earnings differentials among American Indian householders. Conversely, the lack of opportunities in nonmetropolitan

labor markets along with a labor force lacking capital resources combine to depress the mean earnings of nonmetropolitan Indian householders.

Taken together the findings in Tables 3 and 4 clearly demonstrate that the earnings of metropolitan householders are higher than those of householders in nonmetropolitan areas. Metropolitan householders have more schooling, work more weeks, are more frequently veterans, use English more often, and are less likely to reside in the vicinity of a reservation than nonmetropolitan householders. These characteristics of the metropolitan Indian labor force include several which have a decisively positive influence on earnings. Compared to nonmetropolitan householders, metropolitan Indians benefit more from each week they work and they receive a measurable increase in their earnings for additional years of schooling, though there is no statistical difference in the net effect of schooling across areas. Most important, residential conditions combine with population characteristics to produce the largest share of the earnings gap. This is clearly the case for metropolitan workers who not only work more weeks but are better remunerated for each week they work. As we will explain, this interaction has very important policy implications.

The Impact of Nonmetropolitan-to-Metropolitan Migration

Table 5 contains descriptive statistics for Indian nonmetropolitan stayers, and nonmetro-to-metro migrants. The results indicate that these groups differ in a number of ways. Nonmetro-to-metro migrants are more likely to be in the labor force, work more weeks, and have slightly higher earnings than nonmetro stayers, but the difference in earnings

between these groups is approximately $500, and is not statistically significant. Nonmetro-to-metro migrants are younger than nonmetro stayers and their mean years of education is a full 2 years greater than that for nonmetro stayers. The standard deviation of education for nonmetro stayers reflects the high variance in education among this group.

Among the other important differences between these groups are the percentage who are military veterans (25 percent of nonmetro stayers and 39 percent of nonmetro-to-metro migrants), the percentage speaking a non-English language at home (43.6 percent and 28.6 percent, respectively) and the percentage living on or near a reservation (66.2 percent and 27 percent, respectively). In general, these results reflect the selectivity of migration. Migrants are younger, more educated, more likely to be single, and more likely to be veterans. These data also indicate that migrants are more involved in the labor force than nonmetropolitan stayers, though this does not "pay off" with significantly higher earnings.

Hypothesis 1B stated that American Indian householders who have recently migrated to metropolitan areas should receive higher returns to their human capital than those who remained in nonmetropolitan areas. This could be the case even though there is not a significant difference in the earnings of the two groups. Table 6 contains the results of estimating earnings models for nonmetropolitan stayers and metropolitan immigrants among American Indian householders. These models are identical to those already estimated for metropolitan and nonmetropolitan

Table 5

Means and Percentages for Selected Characteristics of American Indian and Alaskan Native Householders, Age 25-54, for Classes of Metropolitan and Nonmetropolitan Movers and Stayers

Variables	Nonmetro Stayers	Nonmetro to Metro Migrants
Percent in the Labor Force	78.4	86.4
Weeks Worked in 1979	35.8 (20.6)	39.1 (18.1)
Annual Earnings (1979 dollars)	9343.7 (9568.4)	9887.1 (8256.5)
Education	10.4 (8.5)	12.4 (3.5)
Percent with Limited Disability	13.2	11.2
Percent Military Veterans	25.5	39.0
Percent Using Non-English Language at Home	43.6	28.6
Age	38.1 (8.5)	33.6 (7.4)
Percent Female	25.5	25.6
Percent Single	32.9	41.4
Percent with Children Under 6	35.3	36.0
Percent Living in the South	25.0	34.1
Percent Living On or Near Reservation	66.2	27.0
N	2218	367

Source: Public-Use Microdata Sample, 5 percent A File.

Note: The numbers in parentheses below the means are standard deviations.

householders. Indeed, comparing the estimates for metropolitan householders in Table 3 with the estimates for metropolitan immigrants in Table 6 shows that some important determinants of earnings have similar effects in both cases. This is also true for comparisons between nonmetropolitan residents in Table 3 and nonmetropolitan stayers in Table 6.

For example, education significantly influences the earnings of metropolitan immigrants in the same way that it affects the earnings of other metropolitan householders; the coefficients are nearly identical for these groups, 3.53 and 2.98 respectively. Similarly, education has no detectable effect on the earnings on nonmetropolitan stayers or nonmetropolitan householders in general. However, the t-test reported in Table 6 shows that the effect of education for nonmetropolitan stayers does not differ significantly from that for nonmetro-to-metro migrants. The effects of the other human capital variables also do not differ significantly.

Despite the similarities in this and the preceding analysis, these results differ in one very crucial respect. Whereas the earnings differential between metropolitan and nonmetropolitan householders was sizable, this difference is not present in parallel comparisons of nonmetropolitan stayers with recent nonmetro to metro immigrants. Recent nonmetro-to-metro immigrants do not enjoy a surge in their earning power by virtue of their relocation. Given that there is no significant difference in the earnings of the two groups and no significant differences in the effects of the determinants of earnings, we do not report the results of a decomposition.[5]

Table 6

Regression of 1979 Log Earnings (x 100) on Selected Characteristics of Nonmetropolitan Stayers and Nonmetropolitan-to-Metropolitan Migrant American Indian and Alaskan Native Householders, Age 25-54

Independent Variables	Nonmetropolitan Stayers (N = 2218)	Nonmetropolitan-to-Metropolitan Migrants (N = 367)	t-test of Difference
Education	1.33	3.53*	
	(2.30)	(1.76)	-0.76
Disability	-1.14	-20.41	
	(20.63)	(37.10)	-0.51
Veteran	8.99*	6.52	
	(4.34)	(7.94)	1.71
Non-English Language	-2.26	-4.09	
	(9.25)	(12.18)	0.12
Age	-0.05	-0.37	
	(0.51)	(2.72)	0.15
Female	-24.74*	14.21	
	(10.86)	(19.70)	-0.47
Single	-0.13	3.82	
	(7.00)	(20.15)	-0.19
Children Present	7.36	11.32	
	(5.39)	(32.43)	-0.12
South	-10.23	-19.74	
	(5.97)	(16.22)	0.55
Near Reservation	4.36	11.89	
	(5.45)	(8.78)	-0.73
Weeks Worked in 1979	3.67**	4.06**	
	(0.09)	(0.21)	-1.71
Correction for Selectivity Probability of Being Out of the Labor Force)	-62.68	-52.22	
	(78.01)	(154.07)	-0.06
Intercept	664.15	651.66	
R^2	.549	.599	

*p < .05
**p < .01
Note: The numbers in parentheses are the standard errors of the coefficient.

SUMMARY AND CONCLUSIONS

Our findings show a distinct gap between the earnings of metropolitan and nonmetropolitan householders, which is attributable to the effects of residence, but especially to an interaction of residence and population composition. We also observed a much smaller and insignificant earnings gap between metropolitan immigrants and nonmetropolitan stayers. We found no evidence of statistically significant differences in the effects of human capital variables that determine earnings. The results did show a significantly higher return to weeks worked among metropolitan residents. These observations lend some support to hypotheses recommending the benefits of urban economies.

The findings shed light on several important issues in social policy. Perhaps most interesting is the complex interaction between labor market and labor force characteristics. This interaction suggests that steps to develop economic opportunities in nonmetropolitan areas or measures targeted at individual workers, such as job training, will be inadequate alone to close the earnings gap between metropolitan and nonmetropolitan workers. Instead, this interaction calls for a two-pronged approach which will improve market conditions in nonmetropolitan areas at the same time that the abilities of workers to exploit these opportunities are upgraded.

The conventional wisdom in academic and policymaking circles alike actively promotes the idea that urban environments promise more opportunities and greater economic rewards than are available in rural locales. On the basis of this idea, years of policymaking and intellectual debates have been preoccupied with the problem of how American

Indians might be urbanized, or at the very least, encouraged to leave the isolation of rural areas, especially reservations. From this perspective, migration is seen as a panacea for a host of economic ills. With the exception of a few studies, the empirical reality of the benefits from migration, economic and otherwise, usually has been uncritically accepted. Showing that American Indian householders do not receive a large and significant premium for their mobility soon (1-5 years) after arrival in a metropolitan area seems to contradict most of the conventional wisdom about encouraging migration to upgrade the material well-being of the Indian population. This result questions policies and arguments that insist that economic opportunities be made available for American Indians in urban locations.

It is important to note, however, that recent migrants are more likely to be working and work more hours than those who remain behind in nonmetropolitan areas. Migration may be an economic investment that requires a lengthy maturation period before the dividends of better employment opportunities are realized. Our sample consists of recent migrants (5 years or less) who, compared to nonmetropolitan stayers, disrupt their lives by moving into an area where they may have limited access to the local networks essential for job seeking, especially for premium wage employment (Greenwood, 1975). Gaining access to such networks may require extended time periods, placing recent urban immigrants at a significant disadvantage relative to long-term urban residents. A second explanation, equally if not more plausible, is that simple metropolitan-nonmetropolitan differences in earnings have misled analysts and policymakers into believing that economic gains could be realized

simply by placing Indians in urban environments. Emphasizing migration as an economic strategy wrongly presumes, for example, that persons with few skills and few opportunities in rural areas can increase their opportunities in urban areas, independently of their lack of skills, schooling, and other relevant characteristics.

Until the 1980 PUMS data, demographic and related kinds of information have been so sparse that it was not possible to closely look at issues as we have in this research. With a relatively large sample, we have been able to examine rigorously the actual impact of rural-to-urban migration and investigate the sources of rural-urban differences in American Indian earnings. Our findings do not fully discredit existing ideas about the benefits of urban residence but they challenge them with a substantially more complex interpretation of how these benefits are derived.

Notes

[1]Studies of minority populations often involve comparisons with whites, and sometimes white males as a reference group. This analysis does not make such comparisons because in many respects they are tangential to the theoretical issues we wish to address--namely the impact of residence and migration on American Indian and Alaskan Native earnings. Furthermore, such comparisons would be unnecessarily cumbersome given the aims of this work.

[2]The Bureau of the Census reported that 54 percent of Indian householders lived in metropolitan areas. The difference between the official estimate and the estimate based on our sample is a result of the way in which residence is coded in the PUMS-A sample. We include individuals who live in county groups containing metropolitan and nonmetropolitan counties in the metropolitan group.

[3]There are a number of alternative ways of using age in the analyses. Our approach was to use a single measure of age. Another alternative is to use the information on education and age to create an experience variable. This variable is generally defined as AGE-YRSED-6. This gives the amount of time that an individual could have been in the labor force. A second alternative involves including age or experience squared in the model. A third, and clearly the best alternative, is to use the actual amount of time that an individual has spent in the labor force as a variable. This information is available in some recent longitudinal surveys, but it is not available in the 1980 PUMS. We did estimate some equations that included a squared term for experience, but the results of these analyses did not alter our conclusions.

[4]Among the other variables that could be included in the analysis are job characteristics such as occupation and industry. These variables are available only for those individuals who have worked since 1975, whereas the variables in Table 1 are available for all householders. "Weeks worked" is, of course, zero for those who did not work in 1979. Previous research indicates that job characteristics are related to earnings among Indians (Sandefur and Scott, 1986). It is not, however, clear that job characteristics should be included in earnings equations. The major argument for not including them is that they are endogenous rather than exogenous variables in the earnings determination process (Killingsworth, 1983). An additional problem with the 1980 Census data is that the recorded occupation and industry may not be the occupation and industry in which an individual worked in 1979. Individuals are asked to record the occupation and industry in which they most recently worked since 1975. Consequently it is not methodologically correct simply to include the recorded job characteristics in the earnings equation. The solution to the endogeneity of job characteristics is not simple. Since we were not interested in the effects of job characteristics, we were primarily concerned about whether our conclusions were sensitive to the inclusion of these variables in the analysis. We did estimate equations that included a white-collar/blue-collar dichotomous variable and discovered that our conclusions were not altered.

[5]We did perform the decomposition. Labor force characteristics as reflected in the composition of the population account for 45.3 percent or $249. However, the largest part of the difference in earnings received by metropolitan immigrants and nonmetropolitan stayers is due