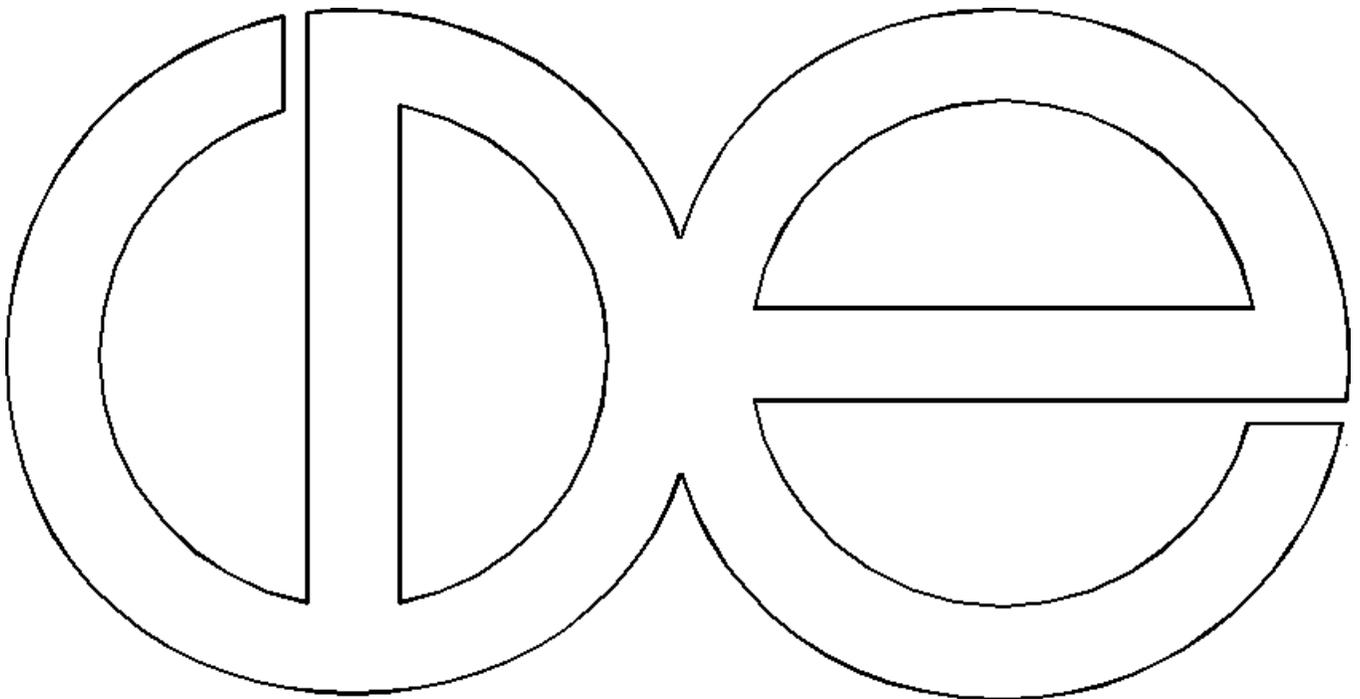


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**American Indian Ethnic Identity:
An Analysis of Tribal Specification in the 1990 Census**

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CDE Working Paper No. 96-20



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ABSTRACT

About two million people identified their race as American Indian by checking the box labeled “Indian (Amer.)” on the racial self-identification question on the 1990 U.S. Census, but only about 90 percent of these people filled in the adjacent space in which they were asked to name their tribe. Why did over 200,000 American Indians not respond to this question? In this paper, four reasons that an American Indian would not identify their tribal affiliation are examined: instrumentation errors, symbolic ethnic identity, situational ethnic identity, and unhyphenated/pan-Indian racial identity. Each explanation suggests one or more variables which may predict a respondent’s likelihood of reporting his or her tribe on the Census.

Explanations for tribal non-response which focus on the socio-historical context and the logistics of the questionnaire are very convincing. Over three-quarters of those who did not specify their tribe are likely to have done so because of instrumentation errors: either they did not answer the question themselves or they did not find the question appropriate for their racial or ancestral heritage. The principal finding of this paper is that American Indians who do not specify their tribe are usually not people customarily regarded as American Indians. They have non-Indian ancestries, speak non-Indian non-English languages, live in cities in non-Indian states and no one else in their household is a tribally identified Indian either. Analysts wishing to delineate “real” American Indians from others should consider restricting their samples to American Indians who report their tribal affiliation. Also, researchers working to explain the puzzling increase of self-identified American Indians in recent censuses should consider instrumentation errors as a possible cause of this expansion of the American Indian population.

In the 1990 U.S. Census, about two million people identified their race as American Indian by checking the box labeled “Indian (Amer.)” on the racial self-identification question, but only about 90 percent of these people filled in the adjacent blank space in which they were asked to name their tribe.¹ Why did more than 10 percent of American Indians not respond to this question?

Why people identify themselves with one group and not another, especially when multiple options are open to them, is an important question. A person’s racial and ethnic group membership has particularly powerful social, economic, and political consequences. The disadvantages of being a member of a minority group are well documented in the United States (Snipp 1989; Marger 1994), yet millions of people of mixed ethnic or racial background continue to identify themselves as minorities.

The experiences of American Indians provide a distinct perspective on the formation of ethnic identity. American Indians are the only specific racial group to be mentioned in the Constitution, and sections of the U.S. government (i.e., the Bureau of Indian Affairs and the Indian Health Service) are dedicated solely to the legally defined rights and needs of American Indians and Alaska Natives. American Indians also have been the targets of federal programs aimed at assimilating them into White culture, such as the late nineteenth century policy of sending American Indian children to distant boarding schools (Hirschfelder and Montaño 1993) and the more recent program to move American Indians into cities.

Many social scientists contend that ethnic identities are not always absolute or permanent (Gans 1979; Lieberson and Waters 1988; Waters 1990), so that as forces of assimilation have weighed against American Indians, the racial and ethnic meaning of being an American Indian has

¹ Although Cornell (1988:107) defines American Indians as “those descendants of American aborigines who (occasionally) act self-consciously on the basis of Indianness”, this paper only addresses the actions of people who listed their race as American Indian on the 1990 U.S. Census.

been especially malleable. In particular, many American Indians in the United States have more than one racial identification option available to them (Eschbach et al. 1995). “Full-blooded” American Indians are relatively uncommon in America today, given that most American Indians are descendants of Whites or Blacks as well as American Indians (Lieberson and Waters 1988; Wilson 1992).² Many who identify their race as American Indian also could legitimately identify their race as White, Black, or something else. Also, the tribal or ethnic background of those who identify their race as American Indians is often mixed since tribal exogamy is common. Several demographers have documented a recent surge in the proportion of Americans who self-identify as American Indians. The enormous increase of the American Indian population in the past few decades is partially due to individuals changing their responses to questions about race over time (Passel 1976; Passel and Berman 1986; Snipp 1989; Harris 1994; Eschbach et al. 1995).

Ethnic identity is different from racial identity in the context of this paper. While the term “racial identity” refers to a person’s socio-psychological identification with a socially defined racial group (such as American Indian, White, or Black), the term “ethnic identity” refers to a similar identification with a group which has unique cultural traits, such as a language or religion. For American Indians, ethnic identification and tribal identification are essentially equivalent because cultural traits are determined by tribal background (Snipp 1989).

THEORETICAL PERSPECTIVES

Theoretical explanations for why a person will or will not identify themselves as a member of a particular ethnic group can be arranged into four sets, which are based on: (1) instrumentation errors, (2) situational ethnic identity, (3) symbolic ethnic identity, and (4) pan-Indian racial identity.

² In 1990, about 40 percent of married American Indian or Alaska Native people were married to other American Indians or Alaska Natives (Sandefur and Liebler 1996).

In this paper, non-response to the tribal identification question is considered an indicator of ethnic group identity (or the lack thereof). Presumably, those American Indians who do not list a tribe do not identify themselves as members of a particular tribal group.

Instrumentation Errors

A survey participant's non-response to a questionnaire item can be caused by a number of issues having to do with their knowledge about or understanding of the question instead of their true ethnic identities. Some respondents simply do not know with which tribe they are affiliated. For example, it is possible that people who are descendants of those indigenous to Central and South America will be less likely to specify their tribe than American Indians from the U.S. or Canada. Central and South American governments have not focused on tribal-level identity for treaties or reservations, which was a major cause of the development of this identity in the U.S. and Canada.

In all types of surveys, unwilling respondents may leave questions blank or refuse to participate entirely. Although the census participation rate is very high, people might be less willing to take part if they do not trust the government; this may be particularly common among American Indians and other minorities (Hirschfelder and Montaña 1993). Most people, as instructed, do not answer the census questionnaire for themselves—their household head³ does it for them. If instructions are unclear or ambiguous to the household head, then the responses of the entire household are adversely affected. Conversely if the head of the household reports a tribe for one person in the household, then he or she will probably write down the tribe of every American Indian in the household. Lack of ability to read, write, or follow directions may also contribute to low response rates, particularly on fill-in-the-blank questions. Respondent fatigue on long forms can be

³ In this paper, the term “household head” is used instead of “householder” because it is more common. The household head is the household member (or one of the members) in whose name the home is owned, being bought, or rented. If there is no such person, any adult household member is considered the householder (*Census Technical Documentation* 1992).

markedly problematic for those who are very old, are ill, or are filling out the form for many other people (as in large households and group quarters).

A person's likelihood of answering one survey question is closely related to their chance of responding to other, similar questions. For example, the tribal question and the ancestry question on the census are very similar because they both ask the respondent to fill a blank with the name of their ethnic group (see Figures 1 and 2), so one would expect that if a person does not indicate their ancestry then they will also be unlikely to report their tribe.

FIGURES 1 AND 2 ABOUT HERE

A person's likelihood of responding to individual survey questions is also related to their likelihood of participating in a survey. Researchers have consistently found that people with higher incomes are more likely to respond to surveys (Atchley 1969; Goudy 1976; O'Neil 1979). Better educated people are also more likely to participate in surveys than others (Reuss 1943; Donald 1960; Robins 1963; Kivlin 1965; Goudy 1976; O'Neil 1979; Norton et al. 1994). In addition, others have explained that individuals with less education are less likely to report an ethnic identity because these people are poorly equipped to transmit knowledge about their ethnic background (Lieberson 1985; Waters 1990). Some contend that men are more likely than women to participate in surveys (Goyder 1982). Others report that women are more likely than men to participate in surveys (Criqui et al. 1978; Davis and Smith 1992; Jay et al. 1993), or that men and women are equally likely to participate in surveys (Cobb et al. 1957; DeMaio 1980; Berk 1985; Adams et al. 1990). Age is negatively related to survey participation (Mercer and Butler 1967; Goudy 1976; O'Neil 1979; Fitzgerald and Fuller 1982; Forthoffer 1983; Herzog and Rodgers 1988; Jay et al. 1993; Francis and Lankshear 1994), with very elderly people especially unlikely to participate (Cobb et al. 1957; Dunkelberg and Day 1973). And city dwellers are less likely to participate in surveys than other people (Reuss 1943; Dunkelberg and Day 1973; DeMaio 1980; Fitzgerald and Fuller 1982; Smith 1983; Forthoffer 1983; Smith 1984;

Jay et al. 1993). On the whole, many factors besides feelings of ethnic identity may cause people to fail to respond to the tribal identification item.

Many researchers have found that people are more likely to participate in surveys if the topic of the survey is salient or personally significant to them (Edgerton et al. 1947; Atchley 1969; Filion 1975; Heberlein and Baumgartner 1978; Goyder 1982; Pearl and Fairley 1985). The salience of an American Indian's ethnic/tribal identity may be increased when members of his or her household are also American Indian because in the household they may discuss or act on their shared heritage. American Indians who live alone or with no other American Indians can be expected to be less likely to report their tribe than the American Indian population as a whole.

Use of an American Indian language in the household also may increase the salience of tribal affiliation (Thompson and Peterson 1975). An American Indian's ability to communicate in an American Indian language shows attachment to and investment in a tribal affiliation. However, the converse is not necessarily true: American Indians who speak only English vary widely in their attachment to their race or ethnicities (Thompson and Peterson 1975). Ability to speak a non-English non-Indian language may also indicate an attachment to another ethnicity besides American Indian. Respondents with this characteristic may have only a slight attachment to their American Indian tribe, making them less likely to report it on the census form.

Having only a few or distantly related American Indian ancestors who identify with a tribe may decrease knowledge about tribal affiliation since intergenerational transfer of knowledge is often incomplete (Waters 1990). Salience is also decreased by lack of interaction with relatives who identify with their tribe. American Indian assimilation into the larger American society is especially common for those whose tribally-identified ancestors are only distant relations. Characteristics such as high levels of income and education are markers of assimilation and thus may be correlated with a less salient tribal identity.

Higher education levels may make people more likely to identify their race or ethnicity because they have experienced the cultural diversity of a university campus and the attendant racialization process (Twine 1996). On the other hand, people who have experienced strong pressures to denounce their race (assimilate) may be less likely to report their tribe because their racial and ethnic identities are not supported by the society.

Situational Ethnic Identity

Another proposed explanation of why a person might not report their ethnic identity is that this form of identity is *situational*. Situational identity is described by Yancey et al. (1976) as an identity which varies across time and place, and according to the needs of the individual. For example, an American Indian with a situational ethnic identity is one whose tribal identity is not deep-seated, but instead can change depending on their social situation or physical proximity to other American Indians. To the extent that an American Indian's tribal identity is situational, that person may be relatively unlikely to report their tribe; responding to the census questionnaire may be a situation in which they do not closely identify with their tribe.

Situational identity is more powerful among some groups than others. For example, the strength of situational ethnicity is positively related to educational attainment, with more highly educated people "the most likely persons to change their racial background" (Eschbach et al. 1995:23). In cosmopolitan areas, situational ethnic identity has more influence on a person's identity (Yancey et al. 1976) than it does on people in residentially segregated areas such as reservations (Nelson and Tienda 1985).

Physical proximity to other American Indians also may decrease the effect of the situation on a person's sense of their American Indian identity. If so, non-metropolitan American Indians⁴ may

⁴ Snipp has found that non-metropolitan location is a reasonable proxy for reservation location in terms of the characteristics of the residents (1989). In this paper, characteristics of people in metropolitan areas are considered to be very similar to those of people in off-reservation regions,

be more likely to specify their tribe than those in cities because of their (inferred) proximity to a reservation. Similarly, people who live in an Indian state⁵ might be more likely to report their tribe because of the increased possibility of contact with other American Indians.⁶ These two ecological factors can have a combined effect: a metropolitan area in an Indian state (like Milwaukee or Oklahoma City) may have a higher concentration of American Indians than a metropolitan area in a non-Indian state, again making situational identity less important and stable forms of identity more consequential.

Symbolic Ethnic Identity

In recent decades, social science researchers have proposed that for some people, ethnic identity may be relatively unimportant and experienced instead in only a symbolic way. A *symbolic* ethnic identity is a form of identity that is relevant to the actor merely on a surface level and that does not affect the details of their daily life. Gans (1979:1) noted that “people are less and less interested in their ethnic cultures and organizations . . . and are instead more concerned with maintaining their ethnic identity.” Using this theory, one might expect that people whose ethnicity is primarily symbolic will be more likely than others to report their tribe on the census questionnaire because this is an easy and non-intrusive way for them to exhibit their identity. On the other hand, people with a relatively symbolic American Indian tribal identity may be less likely to report their tribe because their ethnicity is not a powerful part of their daily lives.

Several researchers have studied the ethnic identification of Whites, finding that symbolic

and people in non-metropolitan areas are assumed to be about the same as those who live in reservation locations.

⁵ An Indian State is one in which over 3,000 American Indians lived in 1950. See explanation of variables for a more complete definition.

⁶ Saragoza (1983) found that for Mexican-Americans, Mexican values are reinforced through circular migration between the U.S. and Mexico.

ethnic identity is stronger for people who are higher in the social hierarchy (Lieberson and Waters 1988; Alba 1990; Waters 1990). For example, Waters (1990) finds that the more educated middle-class families she studied were more likely to report an ethnic ancestry than less educated people. According to Waters, this difference was because the more educated families were more successful in passing information across generations. Alba (1990:74) interprets similar findings to mean that “the value of cultural goods in general is greater for those in more highly placed social strata; those with more diversified symbolic repertoires have a wider range of social contacts, and this encourages the use of ethnic identity.” Like Waters’, Alba’s interpretation implies that people with more education may also be more likely to specify their tribe. Along the same lines, Whites with high incomes may be more able to pay attention to and invest money in their cultural heritage (Alba 1990; Waters 1990). This may mean that American Indians with high incomes will be more likely to report their tribe.

Unhyphenated Racial Identity: Pan-Indianism

As American society continues to focus on race as a social marker, ethnicity has become less important for some groups. A number of people are developing what researchers call an *unhyphenated* racial identity (Alba 1990; Waters 1990), which is an identification with members of the same racial group regardless of ethnicity. When applied to American Indians, unhyphenated identity is generally called *pan-Indian* identity (Cornell 1988; Nagel 1996).

Pan-Indianism first developed about 500 years ago and has been increasingly common in recent decades. Almost immediately after the arrival of Europeans to America, pan-Indianism began with intertribal alliances. Later, when children from many different tribes were taken to the same boarding schools in the late nineteenth century, they found that their common American Indian race was sometimes more important than their tribal differences. Pan-Indian identity developed on a larger scale near the turn of the century with the Ghost Dance movement and Peyote religion (Mooney

1896; La Barre 1938). Identification with other American Indians regardless of tribe continues to be important, as American Indians of all tribes now work together in many areas. For example, at the annual meetings of the National Congress of American Indians (NCAI), American Indians from diverse tribal communities discuss their collective concerns and set their national agenda for litigation and lobbying (Nagel 1996).⁷ American Indians whose pan-Indian identity is strong may not be focusing on tribal issues or relationships, so one would assume that they would be relatively unlikely to identify their tribe on a survey. Metropolitan areas of Indian states may house many American Indians of various tribes who are relatively separated from reservation communities. The theory of pan-Indian racial identity suggests that people in these areas are less likely than others to identify their tribe.

These four theoretical perspectives describe ways in which a person would or would not identify with a particular ethnic group. Although these hypotheses cannot be tested directly with census data, they suggest demographic, ethnic, and ecological variables which might predict a person's identification with one ethnic group or another, specifically, which American Indians will or will not report their tribe.

DESCRIPTION OF THE DATA

Because American Indians are geographically dispersed and are a relatively small minority group, local surveys and ethnographic studies cannot observe a large proportion of the American Indian population effectively. The U.S. Census is most appropriate for examining large phenomena for this group, and so the 5 percent Public Use Microdata Sample (PUMS) of the 1990 U.S. Census

⁷ The Great Lakes Inter-Tribal Council (GLITC), the Native American Rights Fund (NARF), the American Indian Movement (AIM), and urban Indian Centers are other examples of organizations which address the needs and concerns of American Indians of more than one tribe.

is used for this research.

Unfortunately, survey data falls short as a measure of many things. Herbert Smith cited some of these deficiencies when he wrote that

The truly troubling criticisms [of survey research], however, pertain to the disjuncture between what survey questions are supposed to be measuring and what (if anything) they are actually picking up. Complex issues are tapped by single questions. Forced answers to questions do not permit reasoned responses. Questions have different meanings in different contexts. Answers to even the most basic questions on ‘objective’ socioeconomic and demographic characteristics are passed through dense interpretive filters (Smith, 1989:179).

As a decennial snapshot of the United States, the census does not provide good measures of the complex, personal, and varying aspects of ethnic identity. For example, an American Indian’s interest in, support of, or gain from tribal or pan-Indian issues is not conveyed in census data. And neither are the specific reasons that some people do not report their tribal affiliation. Although these problems are important, the census does provide demographic, ethnic, and ecological information about the American Indian population that is useful for addressing the theories outlined above.

Figure 1, above, shows the 1990 U.S. Census question about race, which instructs the respondent to mark the race that he or she considers himself/herself to be. A person who is “Indian (Amer.)” is asked to “print the name of the enrolled or principal tribe” in the supplied box. Those American Indians who did not write a tribal name in this box are the subjects of this analysis. Because this analysis focuses on whether people identify their tribe, the sample includes only respondents who reported that their race is American Indian (this excludes Eskimos and Aleuts). People living in institutions (2,358 respondents representing 59,461 people) are excluded from this analysis because they probably did not complete the census questionnaire themselves; the 49 respondents, potentially representing 3848 people, whose records consist entirely of imputed information are excluded as well. The non-institutional American Indian population comprises the “complete sample.” There are 106,267 people in the unweighted complete sample, representing the

entire non-institutionalized American Indian population of the United States—1,858,941 people.

A data subset for the purpose of estimating a logistic regression is displayed as the “restricted sample.” For reasons explained below, the restricted sample is further limited to household heads aged 25 and older whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. The restricted sample contains 29,498 people before weighting, representing 526,952 American Indians.

EXPLANATION OF VARIABLES

In the following discussion, variables are divided into five groups for ease of presentation. Personal-level variables are in two groups depending on whether they are measures of demographic or ethnic characteristics. Variables about the respondent’s household (household-level variables) are clustered similarly. Variables which describe the location of the household comprise the fifth group.

Personal-Level Demographic Variables

Income: The variable titled “personal wage and salary income” represents the wages and/or salary income of the respondent in 1989. There are many people who reported no personal wage or salary income (they may be unemployed, homemakers, disabled or old, for example) and many others earn very little, so personal wage and salary income does not have a normal distribution. Yet to fit the assumptions of the logistic regression model, continuous variables must be distributed normally. Therefore, personal wage and salary income cannot be a continuous variable, and is instead a categorical variable in this analysis. The variable has eight categories, each with a range of \$5,000 in wage or salary income, with three exceptions. The category “None” contains people with no income of this type, and the categories “\$1 to \$4,999” and “\$30,000 or more” have different ranges. The maximum allowable entry for this variable is \$140,000 (*Census Technical Documentation* 1992).

In this case, the most common category of personal wage and salary income is “none,”⁸ so this is the omitted reference category.⁹

Educational attainment: A person’s educational attainment is expressed as the highest level of schooling that they have completed. Respondents are partitioned into 5 categories: (1) zero to eight years of school completed, (2) nine to eleven years of school completed, (3) twelve years of school completed or high school graduate, (4) some college completed but no degree or associate degree in college, and (5) bachelor’s degree, master’s degree, professional degree, or doctorate degree. The most common level of education attained by members of the restricted sample is twelfth grade or high school graduate so this is the omitted category in the regression analysis.

Gender: The gender variable in this analysis is exactly equivalent to the Census variable labeled “sex.” Although there are more women than men in the complete sample, the restricted sample has a very high proportion of men.¹⁰ Thus, the omitted gender category is “male.”

Age: Age at last birthday, in years, is a continuous variable in this analysis, with people over age 90 considered to be 90 years old. Only adults aged 25 and older are included in the regression analysis because variables about educational attainment and personal earned income are not relevant for young adults and children; only some people under age 25 have completed their schooling or earned income in 1989.

⁸ These people are unusual not only in their lack of personal income, but also their low level of educational attainment (41 percent did not finish high school and only 22 percent continued beyond high school) and their skill in an American Indian language (25 percent speak one). However, they are similar to other members of the restricted sample on all other variables.

⁹ In regression models which include categorical variables, the reference group in this analysis is conventionally the group with the largest number of people in it.

¹⁰ This gender difference is not surprising, given that the restricted sample contains only heads of household.

Personal-Level Ethnicity Variables

Personal language: Census respondents were asked whether they speak a language other than English at home, and if so, what the language is. The Census Bureau reported 183 American Indian and Alaskan Native languages out of 400 non-English languages spoken by census respondents. For this analysis, respondents are grouped according to whether they speak one of these 183 American Indian languages. The three categories of personal language are: (1) English only, (2) a Non-English Non-American Indian language, and (3) an American Indian language. English is the most common language for American Indians in both the complete and restricted samples, and it is the omitted reference category.

Ancestry: The ancestry variable in this analysis is the first “ancestry or ethnic origin” listed by the respondent (see Figure 2 above). The Census Bureau divided answers to this write-in question into almost 1000 categories, but for this analysis they are aggregated into ten groups based loosely on geographic proximity: (1) American Indian, (2) European (including Spanish), (3) Central or South American (including Mexican), (4) West Indian, (5) African or Southwest Asian, (6) Asian Indian, (7) Other Asian or Pacific Islander, (8) African-American/Black, (9) North American, mixture, uncodable entries, and religious responses and (10) ancestry not reported. The ancestry variable’s reference category is American Indian.

Hispanic origin: The Census Bureau considers a person to be of Spanish/Hispanic origin if their ancestors are/were Chicano or from a Spanish-speaking country. Although there are over 100 types of Spanish/Hispanic origin, Hispanic is coded as a Hispanic—non-Hispanic dummy variable for this analysis. Non-Hispanic is the reference category.

Household-Level Demographic Variables

Per-capita household income: Total household income in dollars ranges from \$-999,999 to

\$9,999,999 with the value of \$0 representing people in group quarters and those with no income. The Census Bureau computed this value by summing all types of income for all household members who are age 15 or older. Per-capita household income is the household income divided by the number of people in the household. Per-capita household income is concentrated at the lower positive end of the income scale and thus is not distributed normally. To make this distribution normal so it is appropriate for logistic regression, the natural log of the variable was taken. Because the natural log of zero and negative numbers do not exist, negative income values were assigned the value "\$1" and then \$1,000 was added to each respondent's per-capita household income before performing the natural log transformation. Although it makes the estimated coefficient more difficult to interpret, this conversion does not effect the outcome of the relative odds that a person will not report their tribe.

Family type: The respondent's type of family was calculated by the Census Bureau according to the presence of "other persons living in the household who are related to the householder by birth, marriage, or adoption" (*Census Technical Documentation* 1992:B-15). If the householder lives with his or her spouse, it is called a married-couple household. If other relatives of the householder are present, but not a spouse of the householder's then it is an "other family" household. If no relatives of the householder live with him or her, then it is considered a non-family household. Married-couple families are the reference category for family type because they are most common.

Number of household members: The number of household members is the sum of the number of people who occupy a housing unit. Because empty households have been excluded from this analysis for lack of information, the number of people in the household is not distributed normally and must be a categorical variable. Nine categories each contain a single household size, with the exception that households of 9 or more people are aggregated into one category. The most common household size for people in the restricted sample is one, so people who live alone comprise the

reference group for number of household members.

Household-Level Ethnicity Variables

Household language: If any household member speaks a non-English language in the home, the Census Bureau considers everyone in the household to have that language as their household language. The same categories as were used in the personal language variable are used for the household language variable and again, English is the reference category.

Presence and response of other American Indians in the household: For the purpose of this analysis, respondents were grouped into three categories depending on the presence of other American Indians in the household and these people's response to the tribal affiliation item. If no other American Indians lived in the respondent's household, the respondent was placed in the first category. The second category includes those who share a household with other American Indians where none of the others reported their tribal affiliation. The third category (which is the reference category) contains people who live with other American Indians where *at least one* of these other American Indians specified their tribe.

Location Variables

Metropolitan or non-metropolitan area: Respondents who do not live in a Census-defined metropolitan area¹¹ are labeled "non-metropolitan" in this analysis. Respondents who live in any other area, whether it is partially or completely metropolitan by the Census Bureau's definition, are considered metropolitan for the purpose of this analysis. American Indians in the restricted sample

¹¹ See *Census Technical Documentation* 1992: A-8 to A-9 for the exact definition of a metropolitan area.

are more likely to live in metropolitan areas than non-metropolitan areas, so metropolitan is the reference category.

Indian State: Nineteen states have been designated as “Indian states” because of the relatively high number of American Indians in them.¹² These states are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman, 1986). For this analysis, the Indian state variable is dummy-coded according to whether the respondent lives in an Indian state or a non-Indian state. Residence in an Indian state serves as the reference category.

Interaction term between metropolitan area and Indian state: This term is the product of the code for a respondent’s residence in a metropolitan area and that for their residence in an Indian state. It is only active (i.e. non-zero) when both variables have a value of one, which is when a person lives in a non-metropolitan area of a non-Indian state. The Indian State variable is heavily biased toward rural American Indian populations; the interaction term addresses this bias by testing whether the effect of metropolitan area differs when the respondent lives in an Indian state versus a non-Indian state, and vice versa. For example, this interaction term measures how the effect of living in a non-metropolitan area is different for people in Indian states compared to people in non-Indian states.

TABULAR RESULTS

Tables 1 through 14 report the percentage of members of the complete and restricted samples of American Indians who did not specify their tribe. Although the complete sample is not used in the

¹² Again, an Indian State is one in which over 3,000 American Indians lived in 1950.

regression analysis, it is included for comparison because the restricted sample¹³ is highly constrained. Of people in the complete sample, 10.3 percent did not indicate their tribe on the census form. People in the restricted sample are more likely to specify their tribe, with only 8.6 percent not reporting a tribe.

The relationships between tribal non-response and personal-level demographic variables is very weak. Table 1 shows little variation in response rate by personal wage and salary income among American Indian adults, with non-response rates ranging from 8.5 percent for people who earn \$1 to \$4,999 to 11.6 percent for those who earn \$15,000 to \$19,999 in wages and/or salaries. As Table 2 shows, the adult response level varies only slightly by educational attainment as well. Adult American Indians with the lowest level of educational attainment (none to eighth grade) are least likely to report their tribe, 3.2 percent less so than average. The respondent's gender has only a negligible effect on their likelihood of indicating their tribe; as Table 3 reports, women are less than one percent more likely to report their tribe than men.

Table 4 shows that for the complete sample, the effect of age is not strong until the respondent is 90 or older, when it may be that lower response rates are caused by respondent fatigue from the long census questionnaire or that they are not filling out the form themselves. In the restricted sample, adults over age 70 were less likely to write down their tribe than younger American Indians. The higher response rate of adults under 70 may also be an effect of the ethnic pride movements of the 1960s inasmuch as younger American Indian adults (who are still under age 70) were especially involved in these movements.

TABLES 1, 2, 3, AND 4 ABOUT HERE

¹³ Again, the complete sample is constrained to non-institutionalized American Indians, and the restricted sample is additionally constrained to household heads who are age 25 or older and whose primary ancestry is not West Indian, Asian Indian, Central American, South American, or African-American.

In contrast to the personal-level demographic variables, the personal-level ethnicity variables offer insight into who identifies their tribe and who does not. In Table 5, it is clear that people whose personal language is English have a non-response rate that is very close to the mean of 10.8 percent, but that those who speak a Non-English Non-American Indian language are three times less likely to report their tribe. Perhaps these members of the complete sample are especially prone to leaving their tribal affiliation unidentified because their tribal identity is not salient. Conversely, people who speak an American Indian language are extremely likely to specify their tribe, with only 3.2 percent leaving the space blank. Clearly, a respondent's language is an excellent predictor of whether or not they will report their tribe.

TABLE 5 ABOUT HERE

Table 6 shows response levels by ancestral group. Several ancestral groups stand out. People with American Indian ancestry are most likely to identify their tribe; only 6.8 percent did not. Understandably, people with other (non-American Indian) ancestries report their tribe less often, but some results appear suspicious. For example, of those who said their race was "Indian (Amer.)" and their ancestry was West Indian, 52.8 percent did not name their tribe, and more than two-thirds of American Indians of Asian Indian ancestry did not name their tribe. It is very likely that many of these respondents misunderstood the race question and thought "Indian (Amer.)" was referring to Americans of West Indian or Asian Indian origin. This is an understandable mistake, given that many other countries are represented individually on the race question (China, The Philippines, and Korea, for example). It is almost certain that many people of West Indian and Asian Indian ancestry mistakenly marked their race as American Indian and simply do not *have* a principal tribe.

Only 60.5 percent of American Indians of Central or South American ancestry listed their tribe on the census form, compared to 89.2 percent of all American Indians. The tendency of Central and South American governments to ignore differences among their Indigenous populations may mean

that Central and South American Indian identity has not developed or persisted at the tribal level, remaining at the family, clan, or regional level instead. This could explain the lower response rate for this ancestral group.

The African-American ancestral group also had a low response rate, 58.4 percent. In American society, persons with African ancestors are traditionally considered Black, no matter what other ancestries they may possess. American Indians who also have African-American ancestry may know little of their American Indian predecessors because their African heritage is the most salient element of their identity. Perhaps many American Indians of African-American ancestry do not know from which tribe they are descended.

TABLE 6 ABOUT HERE

Hispanic origin, shown on Table 7, is another strong predictor of tribal specification. Almost 30 percent of American Indians of Hispanic origin did not list their tribe. When the sample is constrained to only those who are in the regression analysis, that number drops to 16.8 percent. This shift in response rate when the sample group is altered is because the approximately 87 percent of people of Hispanic origin who are excluded from the analysis are of Central or South American ancestry and are disproportionately unlikely to report their tribes.

TABLE 7 ABOUT HERE

Differences in the non-response rate to the tribal identification question are slight for the household-level demographic variables, as they were at the personal level. In Table 8, the percent of American Indians who do not report their tribe has little relation to per-capita household income, ranging between 7.6 and 12.7 percent. Table 9 shows that people in non-family households are slightly less likely to identify their tribe than those in family households; 13.9 percent of American Indians in non-family households did not report their tribe compared to an overall mean of 10.8 percent. And finally, Table 10 illustrates that for the complete sample, people in households of nine

or more are the least likely to specify their tribe (14.8 percent do not report their tribe), but that 96.2 percent of American Indians in the restricted sample identify their tribe if they are the head of a very large household; perhaps household heads become fatigued by the long census form and so do not report the tribal affiliation of some members of their household. Otherwise, the relationship between response rate and household size is curvilinear, with 12.9 percent of people who live alone not specifying their tribe, and 9.2 percent of people in households of six failing to report their tribe.

TABLES 8, 9, AND 10 ABOUT HERE

Household-level measures of ethnicity, on the other hand, are clearly related to group member's tendency to specify a tribe. For example, as Table 11 shows, less than 4 percent of people living in a home where an American Indian language is spoken failed to report a tribe. On the other hand, one-quarter of those whose household language is not English or an American Indian language did not specify their tribe.

TABLE 11 ABOUT HERE

Table 12 displays the results for the most powerful variable in these tables: the presence and response of other American Indians in the household. In households with more than one American Indian, if one member of the household identified his or her tribe, there is a 96.8 percent chance that another American Indian member of the household identified their tribe as well. Conversely, if no other American Indians in the household reported their tribe, then in 88 out of 100 cases, the other American Indians in the household also did not report their tribe. People who lived with no other American Indians had a response rate 3 percent lower than the mean (with non-response rates of 13.8 percent and 10.8 percent respectively). The probable cause for this very high response correlation among co-resident American Indians is that the answers of everyone in the household are written down by the household head.

TABLE 12 ABOUT HERE

The geographic location of the household also affects an American Indian's propensity to report his or her tribe. About 7 percent of those who live in non-metropolitan areas do not identify their tribe, as compared to 13.5 percent of those who live in metropolitan areas (Table 13). Also, with 16.5 percent not indicating their tribe, people who live in non-Indian states are more than twice as likely as those in Indian states to not report their tribe (Table 14).

TABLES 13 AND 14 ABOUT HERE

To summarize, about 10 percent of American Indians did not write down their tribes regardless of their income, education, gender, age, household type or household size. Non-English non-American Indian language speakers, Hispanics, city dwellers, and residents of non-Indian states were less likely to report their tribe than others.

Very few people of West Indian, Asian Indian, Central American, South American or African-American ancestries specified their tribe. Ancestrally West Indian and Asian Indian respondents presumably misunderstood the question; a tribal-level identity probably did not evolve for people of Central or South American ancestry; and for American Indians of African-American descent, tribal affiliation may be hindered by the social importance of being Black.

In the complete sample there are 93,455 members of these ancestral groups, of whom 38,387 did not report their tribe. In all, 19 percent of all American Indians who did not identify their tribe are of West Indian, Asian Indian, Central American, South American, or African-American descent.

As a consequence of the Census Bureau's instructions, which request that the household head complete the questionnaire for everyone in the household, the responses of household members are highly correlated with one another. There are 1,259,144 non-household heads in the complete sample, and 137,365 of them did not specify their tribe. About 68.1 percent of all American Indians whose tribe was not reported are not household heads and so are not personally responsible for the omission.

In the complete sample, 201,509 non-institutionalized American Indians did not identify their tribes. Removing non-household heads, people under age 25, and those of West Indian, Asian Indian, Central American, South American, or African-American ancestry from the sample leaves only 47,057 people who did not report their tribe. **Thus instrumentation errors explain over three-quarters (76.6 percent) of the non-responses of non-institutionalized American Indians.**

REGRESSION RESULTS

A series of logistic regression analyses using the 526,952 members of the restricted sample isolates the importance of each variable for predicting who will not report their tribal affiliation, holding the other variables constant. Regression analysis can answer questions that simple tables cannot. For example, does education matter, all else constant, as symbolic ethnicity theory predicts? Is the state or place in which a person lives significantly important to people's identification, as the theory of situational ethnicity asserts? How much does the respondent's ancestry affect their likelihood of naming a tribe, when all else is held constant?

Table 15 shows twelve logistic regression models¹⁴ of the probability that an American Indian head of household did not specify their tribe on the 1990 U.S. Census questionnaire. Because the list of variables is lengthy, each model is shown on two pages. The variables are grouped by type so that the personal-level variables appear on the first page and the household-level and locational variables on the second page. Reference groups for each set of categorical variables are listed in parentheses.

The twelve models are titled according to which variables are used in the regression. For example, Model A tests the impact of each personal-level demographic variable. Model AB tests the

¹⁴ A sampling weight which allows a small sample to represent a much larger population has the property, in regression analysis, of dramatically decreasing the standard error. Adjusting the weights so that they are proportionate rather than inflationary biases the standard errors of the estimated coefficients. Therefore, the logistic regressions reported here are unweighted.

impact of each personal-level variable (both demographic and ethnic) before controlling for other measures and Model CD includes only household-level variables. Models AC and BD examine the effects of demographic and ethnicity variables, respectively. Model BE is included because it has the best fit among the two-group models, and Model BDE is reported for comparison with Models BD and BE. The full model, Model ABCDE, shows the individual effect of every variable when all others are held constant.

Symbolic ethnicity theory hypothesizes that people with higher incomes, ages, and educational attainments will be most likely to have ethnic identities which do not affect their daily lives, and will perhaps be more likely to identify their ethnic background than others. If Model A, Model C or Model AC has a good fit, then symbolic ethnic identity may explain why some American Indians report their tribal affiliation and others do not.

Ecological variables, metropolitan area and Indian state, are included in the regression analysis because the theory of situational ethnicity suggests that ethnic identity is affected by the respondent's surroundings. Model E includes only these variables, so if it fits the data well then perhaps many American Indians who do not report their tribe fail to do so for situational reasons. The role of pan-Indianism can be seen in the term measuring the interaction between non-metropolitan area and non-Indian state. It may be significant because of the number of American Indians from different tribes may be more likely to interact in a metropolitan area of an Indian state. This variable is also contained in Model E.

Table 15 shows that of the five single-group models, Model B has the best fit.¹⁵ This model

¹⁵ Models can be compared with one another only in a very specific manner. One model must be fully contained within the other (for example, Models A and AB could be compared). Then the “-2 Log Likelihood Chi-Squared for Covariates” score of the smaller model is subtracted from the score of the larger model and the degrees of freedom (df) are subtracted in the same manner. The resulting score and df are compared to tabled values of the chi-squared statistic. If this new score and df is significant (if the new score is large and the df is relatively small), then the larger model is a significant improvement over the smaller model. Comparisons of every model to the full

estimates the effect of personal-level ancestry group variables and is consistent with the findings shown in Tables 5, 6, and 7. Clearly, even within the restricted sample, a respondent's language, ancestry and Hispanic origin continue to be good predictors of whether they will report their tribe. For example, people who speak a non-English, non-American Indian language are almost two times as likely to not identify their tribe as those who speak English.¹⁶ Every variable in this regression is significant except for "African or Southwest Asian ancestry." African-Americans were excluded from the analysis but people of African descent were included, and similarly, Asian Indians were excluded but other people from the same region (Southwestern Asia) were not. Thus, this category's lack of significance may be caused by the way in which the sample was restricted.

Models D and E, household ethnicity and geographic location variables, respectively, also have a good fit. Every variable in these models also is significant. Thus the theories of situational identity and pan-Indian identity are fairly well supported by these regression results. Tables 11 through 14 suggested that these variables would produce a good fit, but the tables did not convey the magnitude of their predictive importance. Variables in Models A and C, demographic variables connected with the theory of symbolic ethnicity, are poor predictors of tribal non-response.

Of the two-group models, three models stand out: Model AB, with all personal-level variables, Model BD with all ethnicity variables, and Model BE with personal-level ethnicity variables as well as locational variables. These models fit the data, and the ethnicity variables are again the most effective predictors of an individual's failure to respond. In Model AB, odds ratios describing personal-level demographic variables hover around one, while odds ratios for personal-level ethnicity

model (Model ABCDE) allow comparative statements about unrelated models.

¹⁶ This is taken from the column titled "Odds Ratio." The odds ratio value for a variable refers to the odds that a person in that category will not name their tribe compared to a person in that variable's reference group, all else constant.

variables are usually above two; this means, for example, that people of European ancestry are more than twice as likely not to identify their tribe as people of American Indian ancestry.

Model BD tests the ethnicity variables at the personal and household levels. People who speak an American Indian language or live with someone who does are twice as likely to report their tribe as people in English-only households. Those who speak a non-English non-American Indian language are 77 percent more likely than English speakers to not name their tribe, although the presence of a non-English non-American Indian language speaker in the household is not a significant predictor of the tribal responses of other household members. This means that a person's own ethnic knowledge and experience is a much better predictor of their tribal affiliation than ethnic characteristics of other members of the household.

Model BE, with variables describing the personal-level ethnicity and the location of the respondent, fits the data better than any of the other two-group models. All of the variables in this model are significant, with the exception of "African or Southwest Asian Ancestry" and the locational interaction term. Pan-Indianism suggested the locational interaction term as a predictive variable, but according to this measure, a strong pan-Indian identity is not a good predictor of a person's likelihood of reporting their tribe. However, Model BE indicates that people who speak an American Indian language are 70 percent more likely than those who speak English to indicate their tribe, and those who speak neither English nor an American Indian language are 70 percent less likely to report their tribe.

People whose ancestry is "Other Asian or Pacific Islander" or "North American or Residual" are almost three times less likely than the reference group to specify their tribe in Model BE. Those who did not respond to the ancestry question were half as likely as people of American Indian ancestry to report their tribe, suggesting that some respondents, for whatever reason, do not choose to respond to fill-in-the-blank questions. It may also imply that a person with no salient ancestry may

also have no tribal affiliation, given that the ancestry and tribal affiliation items both measure a person's ethnicity.

Locational variables suggested by situational ethnicity theory also affect a person's probability of reporting his or her tribe according to Model BE; people in non-Indian states are about half as likely to specify their tribe as those in Indian states and people in non-metropolitan areas are 20 percent more likely to report their tribe than people in metropolitan areas. The interaction term between these two locational variables is not significant; this means that people who do not identify their tribe are neither more nor less likely than others to have a pan-Indian racial identity or perhaps this variable is a poor measure of pan-Indianism.

The remarkable fit of Model BE implies that American Indian household heads ages 25 and older who do not have a West Indian, Asian Indian, Central American, South American, or African-American ancestry can be predicted to report their tribal affiliation based on their language, ancestry, Hispanic origin, and physical location. Model BDE, which includes personal- and household-level ethnicity variables and location variables, does not have a significantly better fit than Model BE; after controlling for personal ethnicity and geographic location variables, a respondent's household language no longer makes a significant difference in their likelihood of reporting their tribe. Thus, almost all of what is measured by Model ABCDE is captured by Model BE.

Some demographic and household-level variables in Model ABCDE, the full model, are significant. People with the lowest level of educational attainment (none to eighth grade) are 36 percent less likely to report their tribe than those with a high school diploma. Compared to high school graduates, people who continued their education beyond high school are 17 percent more likely to identify their tribe. Women household heads are 16 percent more likely than their male counterparts to specify their tribe. Finally, people in non-family households are 23 percent less likely to report their tribe than those in married-couple households. When all other variables are controlled,

personal income, age, per-capita household income, and number of people in the household are never significant predictors of whether a person will specify their tribe, implying that the characteristics suggested by models of symbolic ethnicity are not useful in predicting tribal non-responses.

TABLE 15 ABOUT HERE

CONCLUSION

This analysis of the ethnic identity of American Indians as shown by their response to a question on the 1990 U.S. Census has revealed several things: (1) people who are not household heads may not be answering the question themselves, (2) the ambiguity of the question may have led many people of West Indian or Asian Indian ancestry to incorrectly say that their race is American Indian, (3) for socio-historical reasons, American Indians of Central American or South American descent may not have developed a tribal identity, (4) American Indians of African-American ancestry may not know their tribal affiliation because of the social insistence that they are Black, (5) demographic characteristics have minimal effect on the probability that an American Indian will identify their tribe, (6) ethnic characteristics of these respondents are good predictors of whether they will report their tribe, and (7) the ecological location of respondents is an effective predictor of their likelihood to report their tribe.

In this paper, four reasons an American Indian would not identify their tribal affiliation have been discussed: instrumentation errors, symbolic ethnic identity, situational ethnic identity, and unhyphenated/pan-Indian racial identity. Each explanation suggested one or more variables which may predict a respondent's likelihood of reporting their tribe. It is likely that over three-quarters of those who did not specify their tribe did so because of instrumentation errors: either they did not answer the question themselves or they did not find the question appropriate for their racial or ancestral heritage. Explanations for tribal non-response which focus on the socio-historical context

and the logistics of the questionnaire are very convincing.

The proposition that symbolic ethnic identity is an explanation for why some American Indians do not report their tribe is not supported by the results of regression analyses. This theory suggests that a person's demographic characteristics, high income and high level of educational attainment, will be very powerful predictors of whether they will identify their tribal affiliation. Although educational attainment variables are significant when all other variables are held constant, measures of income and educational attainment are not included in the best fitting models.

Situational ethnic identity was connected with variables which fit the data well. Locational variables are good predictors of whether a person will identify their tribe; people in areas with a relatively high proportion of American Indians are significantly more likely than others to report their tribe.

Pan-Indianism, an American Indian's identification with all other American Indians as opposed to only his or her own tribe, suggested one variable for the analysis: the interaction term between metropolitan location and Indian state. Although this locational interaction term is not significant in either of the best-fitting models, this may be a poor measure of pan-Indianism as it is a very general estimate of the density and diversity of American Indians in an area.

Misunderstanding the question and inability to participate in the survey are better explanations of why people do not name their tribe than elaborate theories about types of identity. While theories about emergent forms of ethnic identity may describe things that are really happening, they should be carefully tested. This analysis utilized the best data available to answer the broad question of why some American Indians report their tribe while others do not, but the conclusions would be stronger if additional data were available. If census respondents were asked to complete the questionnaire and then were immediately interviewed about their reasons for responding (or not responding) to the tribal affiliation item, then the resulting information would be much better suited

to answering this question. Based on the analysis in this paper, one can theorize that those who did not answer the question did so because of problems with the instrument or because of a non-Indian ethnic identity. But, without the open-ended input of the respondent him or herself, this analysis can only distinguish variables which predict an action rather than identify its causes.

As expected, this analysis has shown that the absence of a tribal response implies the absence of an American Indian ethnic identity. The principal finding of this paper is that American Indians who do not specify their tribe are usually not people customarily regarded as American Indians. They have non-Indian ancestries, speak non-Indian non-English languages, live in cities in non-Indian states and no one else in their household is a tribally identified Indian either.

Analysts wishing to delineate “real” American Indians from others should consider restricting their samples to American Indians who responded to the tribal affiliation item. Also, researchers working to explain the puzzling increase of self-identified American Indians in recent censuses should consider instrumentation errors as a possible cause of this expansion of the American Indian population.

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Figure 1

U.S. Census Race Question and Instructions

| | |
|--|---|
| <p>4. Race Fill ONE circle for the race that the person considers himself/herself to be.</p> <p>If Indian (Amer.), print the name of the enrolled or principal tribe. _____ →</p> <p>If Other Asian or Pacific Islander (API), print one group, for example: Hmong, Fijian, Laotian, Thai, Tongan, Pakistani, Cambodian, and so on. _____ →</p> <p>If Other race, print race. _____ →</p> | <ul style="list-style-type: none"> <input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Indian (Amer.) (Print the name of the enrolled or principal tribe.) ↗ _____ <input type="radio"/> Eskimo <input type="radio"/> Aleut <li style="text-align: center;">Asian or Pacific Islander (API) <input type="radio"/> Chinese <input type="radio"/> Japanese <input type="radio"/> Filipino <input type="radio"/> Asian Indian <input type="radio"/> Hawaiian <input type="radio"/> Samoan <input type="radio"/> Korean <input type="radio"/> Guamanian <input type="radio"/> Vietnamese <input type="radio"/> Other API ↗ _____ <input type="radio"/> Other race (Print race) ↗ _____ |
|--|---|

4. Fill ONE circle for the race each person considers himself/herself to be.

If you fill the **Indian (Amer.)** circle, print the name of the tribe or tribes in which the person is enrolled. If the person is not enrolled in a tribe, print the name of the principal tribe(s).

If you fill the **Other API** circle (under **Asian or Pacific Islander (API)**), **only** print the name of the group to which the person belongs. For example, the **Other API** category includes persons who identify as Burmese, Fijian, Hmong, Indonesian, Laotian, Bangladeshi, Pakistani, Tongan, Thai, Cambodian, Sri Lankan, and so on.

If you fill the **Other race** circle, be sure to print the name of the race.

If the person considers himself/herself to be **White, Black or Negro, Eskimo or Aleut**, fill one circle only. **Please do not print the race in the boxes.**

The **Black or Negro** category also includes persons who identify as African-American, Afro-American, Haitian, Jamaican, West Indian, Nigerian, and so on.

All persons, regardless of citizenship status, should answer this question.

*Source: Census of Population and Housing, 1990: Public Use Microdata Sample
U.S. Technical Documentation. Prepared by the Bureau of the Census.
Washington: The Bureau, 1992.*

Figure 2

U.S. Census Ancestry Question and Instructions

13. What is this person's ancestry or ethnic origin?
(See instruction guide for further information.)

(For example: German, Italian, Afro-Amer., Croatian, Cape Verdean, Dominican, Ecuadoran, Haitian, Cajun, French Canadian, Jamaican, Korean, Lebanese, Mexican, Nigerian, Irish, Polish, Slovak, Taiwanese, Thai, Ukrainian, etc.)

13. Print the ancestry group. Ancestry refers to the person's ethnic origin or descent, "roots," or heritage. Ancestry also may refer to the country of birth of the person or the person's parents or ancestors before their arrival in the United States. *All* persons, regardless of citizenship status, should answer this question.

Persons who have more than one origin and cannot identify with a single ancestry group may report two ancestry groups (for example, German-Irish).

Be specific. For example, print whether West Indian, Asian Indian, or American Indian. West Indian includes persons whose ancestors came from Jamaica, Trinidad, Haiti, etc. Distinguish Cape Verdean from Portuguese; French Canadian from Canadian; and Dominican Republic from Dominica Island.

A religious group should not be reported as a person's ancestry.

Source: Census of Population and Housing, 1990: Public Use Microdata Sample U.S. Technical Documentation. Prepared by the Bureau of the Census. Washington: The Bureau, 1992.

Table 1

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Level of Personal Wage and Salary Income

| Personal Wage and Salary Income | Complete Sample | | Restricted Sample | |
|---------------------------------|-----------------|---------|-------------------|---------|
| | Percentage | N | Percentage | N |
| None | 11.1% | 354,861 | 9.6% | 175,821 |
| \$1 to \$4,999 | 8.5% | 116,952 | 7.2% | 48,555 |
| \$5,000 to \$9,999 | 10.7% | 103,290 | 8.8% | 46,078 |
| \$10,000 to \$14,999 | 10.7% | 107,169 | 7.7% | 53,077 |
| \$15,000 to \$19,999 | 11.6% | 94,753 | 9.9% | 50,782 |
| \$20,000 to \$24,999 | 10.6% | 69,702 | 7.8% | 43,705 |
| \$25,000 to \$29,999 | 9.6% | 46,154 | 8.4% | 29,536 |
| \$30,000 or more | 11.3% | 105,122 | 9.5% | 79,398 |
| Total N | 10.7% | 998,003 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people ages 25 and over of American Indian race in 1990. The restricted sample is additionally constrained to household heads whose ancestry is not Central American, South American, West Indian, Asian Indian, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 2

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Level of Educational Attainment

| Educational Attainment | Complete Sample | | Restricted Sample | |
|----------------------------------|-----------------|---------|-------------------|---------|
| | Percentage | N | Percentage | N |
| None to 8th Grade | 13.9% | 132,954 | 10.1% | 76,218 |
| 9th to 11th Grade | 11.7% | 159,855 | 9.9% | 81,065 |
| 12th Grade/ High School Graduate | 10.3% | 334,720 | 8.6% | 165,779 |
| Some College or Assoc. Degree | 9.2% | 274,285 | 8.1% | 146,213 |
| Bachelor's Degree or Higher | 10.5% | 96,189 | 9.0% | 57,677 |
| Total N | 10.7% | 998,003 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people ages 25 and over of American Indian race in 1990. The restricted sample is additionally constrained to household heads whose ancestry is not Central American, South American, West Indian, Asian Indian, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 3

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Gender

| Gender | Complete Sample | | Restricted Sample | |
|---------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| Male | 11.3% | 902,424 | 9.2% | 332,783 |
| Female | 10.4% | 956,517 | 8.5% | 194,169 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 4

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Age

| Ages | Complete Sample | | Restricted Sample | |
|-------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| 0 to 9 | 11.1% | 369,748 | -- | 0 |
| 10 to 19 | 10.6% | 341,542 | -- | 0 |
| 20 to 29 | 11.5% | 319,726 | -- | 0 |
| 25 to 29 | 10.7% | 176,620 | 9.0% | 67,347 |
| 30 to 39 | 10.7% | 312,391 | 8.6% | 153,233 |
| 40 to 49 | 10.5% | 218,959 | 8.6% | 121,610 |
| 50 to 59 | 9.8% | 136,884 | 8.9% | 79,482 |
| 60 to 69 | 10.5% | 92,467 | 8.6% | 58,422 |
| 70 to 79 | 12.5% | 49,152 | 11.8% | 34,000 |
| 80 to 89 | 12.7% | 16,049 | 11.5% | 11,497 |
| 90 or older | 15.1% | 2,023 | 11.6% | 1,361 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 5

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Personal Language

| Personal Language | Complete Sample | | Restricted Sample | |
|-------------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| English | 10.6% | 1,294,729 | 9.8% | 403,267 |
| Non-English, Non-Indian | 33.1% | 102,525 | 20.5% | 255,561 |
| American Indian | 3.2% | 277,878 | 2.4% | 98,124 |
| N/A* | 11.5% | 183,809 | -- | 0 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

* People ages three and under were not asked this question.

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 6

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Ancestry

| Ancestry * | Complete Sample | | Restricted Sample | |
|---------------------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| American Indian | 6.8% | 1,386,635 | 7.0% | 417,558 |
| European (incl. Spanish) | 13.3% | 170,405 | 13.8% | 56,116 |
| Central or South American** | 39.5% | 67,814 | -- | 0 |
| West Indian | 52.8% | 2,971 | -- | 0 |
| African or Southwest Asian | 25.8% | 2,036 | 19.1% | 393 |
| Asian Indian | 66.5% | 2,343 | -- | 0 |
| Other Asian or Pacific Islander | 35.5% | 4,769 | 37.0% | 1,054 |
| African-American | 41.6% | 20,327 | -- | 0 |
| North American or Residual | 23.6% | 37,095 | 24.3% | 12,452 |
| No Response | 21.2% | 164,546 | 16.6% | 39,379 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

* First ancestry listed by the respondent.

** Hispanic and non-Hispanic countries including Mexico are in this category.

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 7

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Hispanic Origin

| Hispanic Origin | Complete Sample | | Restricted Sample | |
|-----------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| Hispanic | 28.4% | 138,053 | 16.8% | 17,283 |
| Non-Hispanic | 9.4% | 1,720,888 | 8.7% | 509,669 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 8

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Level of Per-Capita Household Income

| Per-Capita Household Income | Complete Sample | | Restricted Sample | |
|--------------------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| \$-1 or less | 10.1% | 1,467 | 13.8% | 580 |
| None | 12.0% | 26,114 | 9.6% | 9,219 |
| \$1 to \$4,999 | 9.8% | 757,740 | 7.5% | 171,405 |
| \$5,000 to \$9,999 | 12.1% | 533,360 | 10.0% | 145,603 |
| \$10,000 to \$14,999 | 11.2% | 258,813 | 9.2% | 80,620 |
| \$15,000 to \$19,999 | 10.8% | 127,362 | 9.6% | 46,945 |
| \$20,000 to \$24,999 | 10.9% | 65,780 | 9.1% | 27,781 |
| \$25,000 to \$29,999 | 11.2% | 35,070 | 10.6% | 16,667 |
| \$30,000 to \$34,999 | 11.8% | 20,211 | 8.1% | 10,034 |
| \$35,000 to \$39,999 | 11.1% | 11,195 | 11.7% | 5,906 |
| \$40,000 to \$44,999 | 7.6% | 7,430 | 7.5% | 4,158 |
| \$45,000 to \$49,999 | 11.2% | 4,307 | 5.4% | 2,293 |
| \$50,000 or more | 12.7% | 10,092 | 12.3% | 5,741 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people ages 25 and over of American Indian race in 1990. The restricted sample is additionally constrained to household heads whose ancestry is not Central American, South American, West Indian, Asian Indian, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 9

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Family Type

| Family Type | Complete Sample | | Restricted Sample | |
|-----------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| Married Couple Family | 10.3% | 1,111,828 | 8.5% | 266,217 |
| Other Family | 10.8% | 545,571 | 7.2% | 130,026 |
| Non-Family Household | 13.9% | 201,542 | 11.5% | 130,709 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 10

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Number of Household Members

| Number in Household | Complete Sample | | Restricted Sample | |
|---------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| 1 | 12.9% | 119,772 | 11.4% | 106,621 |
| 2 | 11.3% | 314,239 | 9.5% | 130,984 |
| 3 | 10.6% | 346,245 | 8.2% | 94,381 |
| 4 | 10.7% | 402,022 | 8.8% | 90,257 |
| 5 | 10.4% | 305,955 | 6.9% | 55,442 |
| 6 | 9.2% | 180,162 | 6.9% | 27,428 |
| 7 | 10.0% | 102,803 | 5.3% | 12,982 |
| 8 | 13.4% | 37,690 | 7.2% | 4,405 |
| 9 or more | 14.8% | 50,053 | 3.8% | 4,452 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 11

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Household Language

| Household Language | Complete Sample | | Restricted Sample | |
|-------------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| English | 10.9% | 1,224,428 | 9.9% | 377,439 |
| Non-English, Non-Indian | 25.2% | 206,282 | 16.3% | 43,443 |
| American Indian | 3.7% | 428,231 | 2.6% | 106,070 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 12

Percentage of American Indians Who Did Not Specify a Tribe on the 1990 Census,
by Presence and Response of Other American Indian Household Members

| Presence and Response of Others | Complete Sample | | Restricted Sample | |
|--|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| No Other Indians in Household | 13.8% | 511,737 | 11.0% | 387,577 |
| Other American Indians in Household None Named a Tribe | 87.5% | 104,868 | 73.1% | 17,235 |
| Other American Indians in Household One or More Named a Tribe | 3.2% | 1,242,336 | 2.1% | 147,836 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

* This variable is unusable in the regression analysis since the household head is the only household member who is included in the analysis sample. Percentages are supplied for reference only.

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 13

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Residence in a Metropolitan Area

| Area of Residence | Complete Sample | | Restricted Sample | |
|-------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| Metropolitan | 13.5% | 1,141,818 | 10.8% | 335,254 |
| Non-Metropolitan | 6.6% | 717,123 | 5.8% | 191,698 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 14

Percentage of American Indians Who Did Not Specify a Tribe
on the 1990 Census, by Residence in an "Indian State"*

| State of Residence | Complete Sample | | Restricted Sample | |
|--------------------|-----------------|-----------|-------------------|---------|
| | Percentage | N | Percentage | N |
| Indian State | 7.3% | 1,139,575 | 5.8% | 305,505 |
| Non-Indian State | 16.5% | 719,366 | 13.3% | 221,447 |
| Total N | 10.8% | 1,858,941 | 8.9% | 526,952 |

* "Indian states" are states that had 3,000 or more American Indians in the 1950 census. The 19 states that fit this criterion are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman 1986).

Note: The complete sample is constrained to non-institutionalized people of American Indian race in 1990. The restricted sample is additionally constrained to household heads over age 25 whose ancestry is not West Indian, Asian Indian, Central American, South American, or African-American. Percent of American Indians who did specify their tribe is not shown.

Table 15

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model A | | | Model B | | | Model C | | |
|---------------------------------------|---------------|---------|------------|---------------|---------|------------|---------------|---------|------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| Intercept | -2.44 | -24.23 | 0.09 | -2.18 | -21.21 | 0.11 | -2.72 | -9.82 | 0.07 |
| <i>Personal Demographic Variables</i> | | | | | | | | | |
| Personal Wage and Salary Income | | | | | | | | | |
| (None) | -- | -- | -- | | | | | | |
| \$1 to \$4,999 | -0.27 | -3.06 | 0.77 | | | | | | |
| \$5,000 to \$9,999 | -0.08 | -0.96 | 0.92 | | | | | | |
| \$10,000 to \$14,999 | -0.18 | -2.08 | 0.84 | | | | | | |
| \$15,000 to \$19,999 | 0.11 | 1.39 | 1.12 | | | | | | |
| \$20,000 to \$24,999 | -0.11 | -1.19 | 0.90 | | | | | | |
| \$25,000 to \$29,999 | -0.05 | -0.51 | 0.95 | | | | | | |
| \$30,000 or more | 0.13 | 1.83 | 1.14 | | | | | | |
| Educational Attainment | | | | | | | | | |
| None to 8th Grade | 0.17 | 2.37 | 1.18 | | | | | | |
| 9th to 11th Grade | 0.10 | 1.56 | 1.11 | | | | | | |
| (12th Grade/ High School Grad.) | -- | -- | -- | | | | | | |
| Some College or Assoc. Degree | -0.08 | -1.32 | 0.93 | | | | | | |
| Bachelor's Degree or Higher | -0.04 | -0.45 | 0.97 | | | | | | |
| Gender | | | | | | | | | |
| (Male) | -- | -- | -- | | | | | | |
| Female | -0.13 | -2.83 | 0.88 | | | | | | |
| Age | 0.00 | 1.12 | 1.00 | | | | | | |
| <i>Personal Ethnicity Variables</i> | | | | | | | | | |
| Personal Language | | | | | | | | | |
| (English) | | | | -- | -- | -- | | | |
| Non-English, Non-Indian | | | | 0.66 | 8.29 | 1.93 | | | |
| American Indian | | | | -1.48 | -15.36 | 0.23 | | | |
| Ancestry | | | | | | | | | |
| (American Indian) | | | | -- | -- | -- | | | |
| European (incl. Spanish) | | | | 0.70 | 11.67 | 2.01 | | | |
| African or Southwest Asian | | | | 0.91 | 1.61 | 2.49 | | | |
| Other Asian or Pacific Islander | | | | 1.44 | 4.73 | 4.21 | | | |
| North American or Residual | | | | 1.37 | 14.24 | 3.92 | | | |
| No Response | | | | 1.07 | 15.97 | 2.90 | | | |
| Hispanic | | | | | | | | | |
| (Non-Hispanic) | | | | -- | -- | -- | | | |
| Hispanic | | | | 0.38 | 3.72 | 1.46 | | | |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model A | | | Model B | | | Model C | | |
|--|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| <i>Household Demographic Variables</i> | | | | | | | | | |
| Ln (Per Capita HH Income + \$1,000) | | | | | | | 0.04 | 1.51 | 1.04 |
| Family Type | | | | | | | | | |
| (Married Couple Family) | | | | | | | -- | -- | -- |
| Other Family | | | | | | | -0.26 | -4.47 | 0.77 |
| Non-Family Household | | | | | | | 0.20 | 1.99 | 1.22 |
| Number in Household | | | | | | | | | |
| (1) | | | | | | | -- | -- | -- |
| 2 | | | | | | | 0.06 | 0.56 | 1.06 |
| 3 | | | | | | | -0.02 | -0.19 | 0.98 |
| 4 | | | | | | | -0.03 | -0.29 | 0.97 |
| 5 | | | | | | | -0.30 | -2.28 | 0.74 |
| 6 | | | | | | | -0.40 | -2.59 | 0.67 |
| 7 | | | | | | | -0.49 | -2.51 | 0.61 |
| 8 | | | | | | | -0.27 | -1.01 | 0.76 |
| 9 or more | | | | | | | -0.75 | -2.39 | 0.47 |
| <i>Household Ethnicity Variables</i> | | | | | | | | | |
| Household Language | | | | | | | | | |
| (English) | | | | | | | | | |
| Non-English, Non-Indian | | | | | | | | | |
| American Indian | | | | | | | | | |
| <i>Location Variables</i> | | | | | | | | | |
| Residence in an "Indian State"* | | | | | | | | | |
| (Indian State) | | | | | | | | | |
| Non-Indian State | | | | | | | | | |
| Residence in a Metropolitan Area | | | | | | | | | |
| (Metropolitan) | | | | | | | | | |
| Non-Metropolitan | | | | | | | | | |
| Interaction Term | | | | | | | | | |
| Non-Metro and Non-Indian State | | | | | | | | | |
| -2 Log Likelihood Chi-Squared for Cov. | | | 62.30 | | | 1008.94 | | | 138.91 |
| df | | | 13 | | | 8 | | | 11 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

* "Indian states" are states with 3,000 or more American Indians in the 1950 census. The 19 states that fit this criterion are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman 1986).

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model D | | | Model E | | | Model AB | | |
|---------------------------------------|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| Intercept | -2.28 | -96.00 | 0.10 | -2.66 | -59.18 | 0.07 | -2.10 | -14.78 | 0.12 |
| <i>Personal Demographic Variables</i> | | | | | | | | | |
| Personal Wage and Salary Income | | | | | | | | | |
| (None) | | | | | | | -- | -- | -- |
| \$1 to \$4,999 | | | | | | | -0.20 | -2.25 | 0.82 |
| \$5,000 to \$9,999 | | | | | | | -0.07 | -0.78 | 0.94 |
| \$10,000 to \$14,999 | | | | | | | -0.18 | -2.05 | 0.84 |
| \$15,000 to \$19,999 | | | | | | | 0.08 | 1.03 | 1.09 |
| \$20,000 to \$24,999 | | | | | | | -0.16 | -1.75 | 0.85 |
| \$25,000 to \$29,999 | | | | | | | -0.13 | -1.21 | 0.88 |
| \$30,000 or more | | | | | | | 0.07 | 0.95 | 1.07 |
| Educational Attainment | | | | | | | | | |
| None to 8th Grade | | | | | | | 0.30 | 4.12 | 1.35 |
| 9th to 11th Grade | | | | | | | 0.11 | 1.64 | 1.11 |
| (12th Grade/ High School Grad.) | | | | | | | -- | -- | -- |
| Some College or Assoc. Degree | | | | | | | -0.14 | -2.45 | 0.87 |
| Bachelor's Degree or Higher | | | | | | | -0.14 | -1.79 | 0.87 |
| Gender | | | | | | | | | |
| (Male) | | | | | | | -- | -- | -- |
| Female | | | | | | | -0.14 | -2.95 | 0.87 |
| Age | | | | | | | | | |
| | | | | | | | 0.00 | 0.31 | 1.00 |
| <i>Personal Ethnicity Variables</i> | | | | | | | | | |
| Personal Language | | | | | | | | | |
| (English) | | | | | | | -- | -- | -- |
| Non-English, Non-Indian | | | | | | | 0.63 | 7.93 | 1.89 |
| American Indian | | | | | | | -1.55 | -15.92 | 0.21 |
| Ancestry | | | | | | | | | |
| (American Indian) | | | | | | | -- | -- | -- |
| European (incl. Spanish) | | | | | | | 0.70 | 11.67 | 2.02 |
| African or Southwest Asian | | | | | | | 1.04 | 1.85 | 2.84 |
| Other Asian or Pacific Islander | | | | | | | 1.46 | 4.78 | 4.29 |
| North American or Residual | | | | | | | 1.34 | 13.84 | 3.80 |
| No Response | | | | | | | 1.04 | 15.46 | 2.83 |
| Hispanic | | | | | | | | | |
| (Non-Hispanic) | | | | | | | -- | -- | -- |
| Hispanic | | | | | | | 0.39 | 3.83 | 1.48 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model D | | | Model E | | | Model AB | | |
|--|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| <i>Household Demographic Variables</i> | | | | | | | | | |
| Ln (Per Capita HH Income + \$1,000) | | | | | | | | | |
| Family Type | | | | | | | | | |
| (Married Couple Family) | | | | | | | | | |
| Other Family | | | | | | | | | |
| Non-Family Household | | | | | | | | | |
| Number in Household | | | | | | | | | |
| (1) | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 or more | | | | | | | | | |
| <i>Household Ethnicity Variables</i> | | | | | | | | | |
| Household Language | | | | | | | | | |
| (English) | -- | -- | -- | | | | | | |
| Non-English, Non-Indian | 0.55 | 8.69 | 1.73 | | | | | | |
| American Indian | -1.46 | -16.56 | 0.23 | | | | | | |
| <i>Location Variables</i> | | | | | | | | | |
| Residence in an "Indian State"* | | | | | | | | | |
| (Indian State) | | | | -- | -- | -- | | | |
| Non-Indian State | | | | 0.79 | 14.57 | 2.21 | | | |
| Residence in a Metropolitan Area | | | | | | | | | |
| (Metropolitan) | | | | -- | -- | -- | | | |
| Non-Metropolitan | | | | -0.51 | -7.37 | 0.60 | | | |
| Interaction Term | | | | | | | | | |
| Non-Metro and Non-Indian State | | | | 0.22 | 2.28 | 1.25 | | | |
| -2 Log Likelihood Chi-Squared for Cov. | | | 530.56 | | | 587.39 | | | 1089.67 |
| df | | | 2 | | | 3 | | | 21 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

* "Indian states" are states with 3,000 or more American Indians in the 1950 census. The 19 states that fit this criterion are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman 1986).

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model CD | | | Model AC | | | Model BD | | |
|---------------------------------------|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| Intercept | -1.70 | -6.06 | 0.18 | -2.76 | -7.76 | 0.06 | -2.18 | -21.15 | 0.11 |
| <i>Personal Demographic Variables</i> | | | | | | | | | |
| Personal Wage and Salary Income | | | | | | | | | |
| (None) | | | | -- | -- | -- | | | |
| \$1 to \$4,999 | | | | -0.24 | -2.74 | 0.79 | | | |
| \$5,000 to \$9,999 | | | | -0.11 | -1.25 | 0.90 | | | |
| \$10,000 to \$14,999 | | | | -0.21 | -2.37 | 0.81 | | | |
| \$15,000 to \$19,999 | | | | 0.06 | 0.70 | 1.06 | | | |
| \$20,000 to \$24,999 | | | | -0.18 | -1.88 | 0.83 | | | |
| \$25,000 to \$29,999 | | | | -0.13 | -1.15 | 0.88 | | | |
| \$30,000 or more | | | | 0.05 | 0.58 | 1.05 | | | |
| Educational Attainment | | | | | | | | | |
| None to 8th Grade | | | | 0.21 | 3.00 | 1.24 | | | |
| 9th to 11th Grade | | | | 0.14 | 2.09 | 1.15 | | | |
| (12th Grade/ High School Grad.) | | | | -- | -- | -- | | | |
| Some College or Assoc. Degree | | | | -0.10 | 1.90 | 3.90 | | | |
| Bachelor's Degree or Higher | | | | 0.90 | 2.90 | 4.90 | | | |
| Gender | | | | | | | | | |
| (Male) | | | | -- | -- | -- | | | |
| Female | | | | -0.10 | -1.91 | 0.90 | | | |
| Age | | | | | | | | | |
| | | | | -0.00 | -1.73 | 1.00 | | | |
| <i>Personal Ethnicity Variables</i> | | | | | | | | | |
| Personal Language | | | | | | | | | |
| (English) | | | | | | | -- | -- | -- |
| Non-English, Non-Indian | | | | | | | 0.57 | 4.42 | 1.77 |
| American Indian | | | | | | | -0.83 | -3.59 | 0.44 |
| Ancestry | | | | | | | | | |
| (American Indian) | | | | | | | -- | -- | -- |
| European (incl. Spanish) | | | | | | | 0.69 | 11.51 | 1.99 |
| African or Southwest Asian | | | | | | | 1.01 | 1.78 | 2.73 |
| Other Asian or Pacific Islander | | | | | | | 1.43 | 4.71 | 4.19 |
| North American or Residual | | | | | | | 1.36 | 14.19 | 3.90 |
| No Response | | | | | | | 1.07 | 15.96 | 2.91 |
| Hispanic | | | | | | | | | |
| (Non-Hispanic) | | | | | | | -- | -- | -- |
| Hispanic | | | | | | | 0.37 | 3.59 | 1.45 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model CD | | | Model AC | | | Model BD | | |
|--|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| <i>Household Demographic Variables</i> | | | | | | | | | |
| Ln (Per Capita HH Income + \$1,000) | -0.05 | -1.88 | 0.95 | 0.07 | 1.75 | 1.07 | | | |
| Family Type | | | | | | | | | |
| (Married Couple Family) | -- | -- | -- | -- | -- | -- | | | |
| Other Family | -0.22 | -3.85 | 0.80 | -0.18 | -2.64 | 0.84 | | | |
| Non-Family Household | 0.15 | 1.51 | 1.16 | 0.25 | 2.41 | 1.28 | | | |
| Number in Household | | | | | | | | | |
| (1) | -- | -- | -- | -- | -- | -- | | | |
| 2 | -0.01 | -0.14 | 0.99 | 0.07 | 0.67 | 1.07 | | | |
| 3 | -0.10 | -0.87 | 0.90 | -0.01 | -0.06 | 0.99 | | | |
| 4 | -0.13 | -1.14 | 0.87 | -0.02 | -0.14 | 0.98 | | | |
| 5 | -0.34 | -2.61 | 0.71 | -0.28 | -2.06 | 0.76 | | | |
| 6 | -0.36 | -2.35 | 0.70 | -0.38 | -2.40 | 0.69 | | | |
| 7 | -0.39 | -1.99 | 0.68 | -0.49 | -2.45 | 0.62 | | | |
| 8 | -0.09 | -0.35 | 0.91 | -0.26 | -0.95 | 0.77 | | | |
| 9 or more | -0.50 | -1.58 | 0.60 | -0.78 | -2.46 | 0.46 | | | |
| <i>Household Ethnicity Variables</i> | | | | | | | | | |
| Household Language | | | | | | | | | |
| (English) | -- | -- | -- | | | | -- | -- | -- |
| Non-English, Non-Indian | 0.59 | 9.23 | 1.80 | | | | 0.09 | 0.82 | 1.09 |
| American Indian | -1.39 | -15.57 | 0.25 | | | | -0.66 | -3.11 | 0.52 |
| <i>Location Variables</i> | | | | | | | | | |
| Residence in an "Indian State"* | | | | | | | | | |
| (Indian State) | | | | | | | | | |
| Non-Indian State | | | | | | | | | |
| Residence in a Metropolitan Area | | | | | | | | | |
| (Metropolitan) | | | | | | | | | |
| Non-Metropolitan | | | | | | | | | |
| Interaction Term | | | | | | | | | |
| Non-Metro and Non-Indian State | | | | | | | | | |
| -2 Log Likelihood Chi-Squared for Cov. | | | 612.08 | | | 191.39 | | | 1021.77 |
| df | | | 13 | | | 24 | | | 10 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

* "Indian states" are states with 3,000 or more American Indians in the 1950 census. The 19 states that fit this criterion are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman 1986).

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model BE | | | Model BDE | | | Model ABCDE | | |
|---------------------------------------|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| Intercept | -2.83 | -57.97 | 0.06 | -2.54 | -22.80 | 0.08 | -1.77 | -4.64 | 0.17 |
| <i>Personal Demographic Variables</i> | | | | | | | | | |
| Personal Wage and Salary Income | | | | | | | | | |
| (None) | | | | | | | -- | -- | -- |
| \$1 to \$4,999 | | | | | | | -0.14 | -1.52 | 0.87 |
| \$5,000 to \$9,999 | | | | | | | -0.01 | -0.10 | 0.99 |
| \$10,000 to \$14,999 | | | | | | | -0.11 | -1.23 | 0.90 |
| \$15,000 to \$19,999 | | | | | | | 0.14 | 1.57 | 1.15 |
| \$20,000 to \$24,999 | | | | | | | -0.13 | -1.26 | 0.88 |
| \$25,000 to \$29,999 | | | | | | | -0.11 | -0.93 | 0.90 |
| \$30,000 or more | | | | | | | 0.09 | 0.96 | 1.09 |
| Educational Attainment | | | | | | | | | |
| None to 8th Grade | | | | | | | 0.31 | 4.21 | 1.36 |
| 9th to 11th Grade | | | | | | | 0.13 | 1.94 | 1.14 |
| (12th Grade/ High School Grad.) | | | | | | | -- | -- | -- |
| Some College or Assoc. Degree | | | | | | | -0.18 | -3.07 | 0.83 |
| Bachelor's Degree or Higher | | | | | | | -0.19 | -2.33 | 0.83 |
| Gender | | | | | | | | | |
| (Male) | | | | | | | -- | -- | -- |
| Female | | | | | | | -0.18 | -3.11 | 0.84 |
| Age | | | | | | | | | |
| | | | | | | | -0.00 | -0.45 | 1.00 |
| <i>Personal Ethnicity Variables</i> | | | | | | | | | |
| Personal Language | | | | | | | | | |
| (English) | | | | | | | -- | -- | -- |
| Non-English, Non-Indian | 0.53 | 6.68 | 1.70 | 0.54 | 4.15 | 1.71 | 0.43 | 3.24 | 1.53 |
| American Indian | -1.18 | -11.81 | 0.31 | -0.75 | -3.23 | 0.47 | -0.88 | -3.79 | 0.41 |
| Ancestry | | | | | | | | | |
| (American Indian) | | | | | | | -- | -- | -- |
| European (incl. Spanish) | 0.60 | 9.96 | 1.83 | 0.60 | 9.89 | 1.82 | 0.59 | 9.73 | 1.81 |
| African or Southwest Asian | 0.70 | 1.24 | 2.02 | 0.77 | 1.35 | 2.15 | 0.94 | 1.65 | 2.55 |
| Other Asian or Pacific Islander | 1.34 | 4.36 | 3.82 | 1.34 | 4.35 | 3.82 | 1.37 | 4.42 | 3.93 |
| North American or Residual | 1.31 | 13.49 | 3.70 | 1.31 | 13.47 | 3.69 | 1.26 | 12.91 | 3.54 |
| No Response | 1.10 | 16.26 | 2.99 | 1.10 | 16.26 | 2.99 | 1.04 | 15.31 | 2.84 |
| Hispanic | | | | | | | | | |
| (Non-Hispanic) | | | | | | | -- | -- | -- |
| Hispanic | 0.29 | 2.82 | 1.34 | 0.28 | 2.77 | 1.33 | 0.30 | 2.92 | 1.35 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

Table 15, cont.

Logistic Regressions of the Probability that an American Indian Head of Household
Did Not Specify His or Her Tribe on the 1990 U.S. Census Questionnaire

| Variable Name | Model BE | | | Model BDE | | | Model ABCDE | | |
|--|------------------|---------|---------------|------------------|---------|---------------|------------------|---------|---------------|
| | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio | Unstd. Coeff. | T-Stat. | Odds Ratio |
| <i>Household Demographic Variables</i> | | | | | | | | | |
| Ln (Per Capita HH Income + \$1,000) | | | | | | | -0.07 | -1.79 | 0.93 |
| Family Type | | | | | | | | | |
| (Married Couple Family) | | | | | | | -- | -- | -- |
| Other Family | | | | | | | -0.06 | -0.84 | 0.94 |
| Non-Family Household | | | | | | | 0.21 | 2.02 | 1.23 |
| Number in Household | | | | | | | | | |
| (1) | | | | | | | -- | -- | -- |
| 2 | | | | | | | 0.01 | 0.13 | 1.01 |
| 3 | | | | | | | -0.00 | -0.04 | 1.00 |
| 4 | | | | | | | -0.00 | -0.03 | 1.00 |
| 5 | | | | | | | -0.19 | -1.35 | 0.83 |
| 6 | | | | | | | -0.22 | -1.33 | 0.81 |
| 7 | | | | | | | -0.24 | -1.17 | 0.79 |
| 8 | | | | | | | 0.10 | 0.38 | 1.11 |
| 9 or more | | | | | | | -0.34 | -1.06 | 0.71 |
| <i>Household Ethnicity Variables</i> | | | | | | | | | |
| Household Language | | | | | | | | | |
| (English) | | | | -- | -- | -- | -- | -- | -- |
| Non-English, Non-Indian | | | | -0.00 | -0.03 | 1.00 | 0.09 | 0.78 | 1.09 |
| American Indian | | | | -0.44 | -2.04 | 0.65 | -0.34 | -1.57 | 0.71 |
| <i>Location Variables</i> | | | | | | | | | |
| Residence in an "Indian State"* | | | | | | | | | |
| (Indian State) | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Non-Indian State | 0.66 | 11.81 | 1.93 | 0.65 | 11.71 | 1.92 | 0.66 | 11.67 | 1.93 |
| Residence in a Metropolitan Area | | | | | | | | | |
| (Metropolitan) | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Non-Metropolitan | -0.24 | -3.35 | 0.79 | -0.23 | -3.24 | 0.80 | -0.26 | -3.69 | 0.77 |
| Interaction Term | | | | | | | | | |
| Non-Metro and Non-Indian State | 0.06 | 0.59 | 1.06 | 0.05 | 0.53 | 1.05 | 0.04 | 0.41 | 1.04 |
| -2 Log Likelihood Chi-Squared for Cov. | | | 1282.45 | | | 1287.16 | | | 1413.19 |
| df | | | 11 | | | 13 | | | 37 |

Note: Sample is constrained to non-institutionalized people ages 25 and older who listed their race as American Indian. American Indians who listed their first ancestry as Central or South American, West Indian, Asian Indian, or African-American are also excluded from this analysis. For more accurate t-statistics, the sample is not weighted by the respondent's likelihood of being included in the sample. Reference groups of categorical variables are in parentheses.

* "Indian states" are states with 3,000 or more American Indians in the 1950 census. The 19 states that fit this criterion are: Alaska, Arizona, Idaho, Michigan, Minnesota, Montana, Nebraska, Nevada, New York, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming (Passel and Berman 1986).