

MORE THAN A MILLION NEW AMERICAN INDIANS IN 2000: WHO ARE THEY?

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Abstract

Over a million people reported their race as American Indian in the 2000 U.S. Census but did not report that race in the 1990 Census. We investigate three questions related to this extraordinary population change: (1) Which subgroups of American Indians had the greatest numerical growth? (2) Which subgroups had the greatest proportional increase? And (3) is it plausible that all “new” American Indians reported multiple races in 2000? We use full-count and high-density decennial U.S. census data; adjust for birth, death, and immigration; decompose on age, gender, Latino origin, education, and birth state; and compare the observed American Indian subgroup sizes in 2000 to the sizes expected based on 1990 counts. The largest numerical increases were among non-Latino youth (ages 10-19), non-Latino adult women, and adults with no college degree. Latinos, highly-educated adults, and women have the largest proportionate gains, perhaps indicating that “American Indian” has special appeal in these groups. We also find evidence that a substantial number of new American Indians reported only American Indian race in 2000, rather than a multiple-race response. This research is relevant to social theorists, race scholars, community members, program evaluators, and the Census Bureau.

Keywords: Race, American Indian, U.S. Census, Research Data Center, racial identification

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Introduction

Between 1990 and 2000, there was a remarkable demographic event: the size of the American Indian/Alaska Native population doubled. In 1990, there were about 2 million people who marked the “American Indian or Alaska Native” box in the U.S. Census race question.¹ Ten years later, that number jumped to over 4 million. Once births, deaths, and immigration are taken into account, there remain about a million *new* American Indians/Alaska Natives (hereafter American Indian or AIAN) in the data from Census 2000. These million individuals reported² a non-American Indian race (e.g., white) in 1990 when single race responses were required, and in 2000 either added American Indian as an additional race (e.g., white and American Indian) or simply reported American Indian single race in the latter census. In this research, we explore the characteristics of the new American Indians and discuss implications of this large-scale inter-census racial reclassification.

Group sizes have been shown to change due to *new identity decisions* by new immigrants or for mixed-race newborns (c.f. Waters 1999) or *shifts in established identity* among those with longer tenure in the society (c.f. Loveman and Muniz 2007). Either type of identity change may be a permanent change (Nagel 1996) or be constantly negotiated (Khanna and Johnson 2010).

¹ Anyone may mark the “American Indian or Alaska Native” box on the census form, but official enrollment in a federally recognized tribe is required for a person to receive benefits from a tribe or the federal government. Tribal enrollment numbers are much lower than census counts of American Indians – 900,000 versus 1.37 million in 1980, for example (Thornton 1997:37).

² Census answers may be reasonably interpreted as indicators of identification or attachment because they are either self reports or reports by someone in the home. For ease of exposition, we write as though they are self-reports.

Each of these types of movement in personal identity is an important source of change in the meanings of socially defined categories of race or ethnicity.

We focus here on shifts in established identity leading to changes in net group size, as measured in adjacent censuses. Noticeable net changes in group size due to changing racial or ethnic identification have been documented in several groups in the US and elsewhere. Some people drop their minority status labels, including later-generation Mexican Americans who have achieved socioeconomic parity with whites (Alba and Islam 2009; Duncan and Trejo 2011) and Puerto Ricans in the early twentieth century (Loveman and Muniz 2007). Some smaller minority groups in the former Soviet Union experienced dramatic population declines as young adults increasingly identified with the majority group (Anderson and Silver 1983). White Americans are known for selectively highlighting ethnicity or ancestral origins and thus changing the measured size of each ethnicity (e.g., Hout and Goldstein 1994; Waters 1990). And there has been a more general “small drift from the non-Hispanic white population into race/ethnic minority groups” (Perez and Hirschman 2009:32).

The one million person surge in the American Indian population in 2000 continues a long-standing pattern in this group. In each U.S. census since 1960, there have been hundreds of thousands of new American Indians – people who joined the American Indian population through identity change rather than birth or immigration. Passel (1997) calculates the total increase in the American Indian population between 1960 and 1990 to include 762,000 people from natural increase and 645,000 from changing identification.³ Given the millions of

³ Thornton (1987, Ch. 8) discusses census under-enumeration issues that may be a small part of this increase.

Americans who report American Indian ancestry but not race in each census,⁴ there is substantial potential for even more population growth.⁵ In other words, the jump between 1990 and 2000 was especially large, but it was not completely unexpected.⁶

In this research, we ask: who are these new American Indians in 2000? We address three research questions. First, we ask about numerical increase: which sub-populations experienced the most growth? This helps us understand the extent to which the new American Indian population is compositionally similar to the 1990 population; these results are especially useful for policy and governance purposes. Second, we ask about proportionate increase: which sub-groups showed the greatest propensity to identify as American Indian for the first time in 2000? These results are particularly relevant for race scholars interested in social locations favorable for racial identity change. Third, we ask whether it is safe to assume that the new American Indian population is one and the same as the multiple-race American Indian population. This question is

⁴ “Americans of Indian Descent” report an “ancestry or ethnic origin” which includes American Indian but who do not report American Indian race (Snipp 1989). There were 8.9 million Americans of Indian Descent in 1990, 9.1 million in 2000, and 19.8 million in 2010 (1990 and 2000 Censuses and 2010 ACS from IPUMS.org, Ruggles et al. 2010).

⁵ Early reports from the 2010 Census indicate that 5.2 million people marked the American Indian box in the race question (Humes, Jones, and Ramirez 2011). The 2010 Census microdata have not yet been released.

⁶ The 1990 to 2000 jump in American Indian population size was not anticipated by Census Bureau employees doing population projections in the 1990s. They expected that this population would reach 4.3 million in 2050 rather than in 2000 (McKenney and Bennett 1994).

relevant to analysts hoping for a simple way to make cross-time comparisons between American Indians in 1990 and 2000.

In prior research, as in the present work, net changes in population size are identified using comparisons of two cross-sectional data sets; longitudinal data are not presently available. To identify the components of the American Indian population which experienced the largest increases, we calculate the expected population in 2000 for hundreds of sub-populations (decomposing by age, gender, Latino status, education, and birth state), and compare each number to the observed size of that subgroup in 2000. Through the Research Data Center (RDC) network, we utilize the full-count short form data (~100% of the US) and the complete long form data (a 17% sample) from the 1990 and 2000 censuses. In sum, our work extends prior studies to a new census year using better data and in previously unexplored directions.

Importance

Our study of new American Indians in 2000 is important both theoretically and practically. Theories of social boundaries apply to this case; the group boundaries of “American Indian” are stretched by an overwhelming influx of newcomers. The popular concept of “racial formation” – the social construction of what each race group *is* – can also be brought to bear on this remarkable situation. In practical terms, the 50% increase in the American Indian population over only one decade creates tremendous data discontinuity issues for policies and programs aimed at reducing health, education, and other disparities between American Indians and others.

Race scholars – and social theorists more broadly – have given attention to how group boundaries are constructed, negotiated, maintained, and moved (Alba and Nee 2003; Barth 1969; Loveman and Muniz 2007; Wimmer 2008). Group boundaries are seen as actively constructed

by people and institutions both inside and outside of the group (Nagel 1994; Omi and Winant 1994) in a process called “racial formation.” Alba and Nee (2003:60-61) suggest that there are three dynamics: *boundary crossing* (changes in individuals that make them newly qualified for membership in a different group), *boundary blurring* (in which “the social profile of a boundary becomes less distinct”), and *boundary shifting* (“the relocation of a boundary so that populations once situated on one side are now included on the other”). Racial formation theory (Omi and Winant 1994) suggests that the transformation of racial categories (as in the blurring or shifting of boundaries) has powerful implications, including the potential to reorganize racial dynamics and redistribute resources along racial lines. We suspect that these are not individuals crossing boundaries; rather there have been shifts or blurs in the meaning of “American Indian.” In the American Indian case, a person who changes identification through boundary crossing might learn an American Indian language or move to an American Indian homeland. Empirically, this is not the case; in fact, both of these characteristics are less common in 2000 than they were in 1990.⁷

Research on the population dynamics of American Indians has practical relevance for policy makers, program evaluators, the Census Bureau, and social scientists. All of these constituencies would find their work substantially easier if people would not change their race response from year to year. Large-scale population shifts undermine efforts to evaluate the effects of programs and to develop policies relevant to the needs of tribes and communities. They

⁷ About 16% of American Indians in 1990 spoke an American Indian language; only 11% of single race and 0.5 % of multiple race American Indians did so in 2000. In 1990, 74% of American Indians lived near a homeland; 73% of single race and 51% of multiple race American Indians did so in 2000 (IPUMS.org, Ruggles et al. 2010).

complicate estimates of undercounts, population projections, and population characteristics. And they render invalid the assumption that a person's race response at one time can be assumed to have been their race response for all time.

This problem cannot be sidestepped. A person's racial identity is consequential for most aspects of life, including where they live, who they marry, their education and occupation, and their health and longevity. When this identity changes, the consequences may also change. Nor can we ignore American Indians as a group; they must continue to be included in policies, programs, Census estimates and social research. A researcher who takes into account which American Indian sub-populations grew the most, or the most quickly, is less likely to draw inaccurate conclusions about the group as a whole. Similarly, someone who understands that the single-race population in 2000 is not the same group of people as the 1990 population will not make misleading comparisons between the two.

Prior Knowledge

The American Indian Population Boom

There was a steep, steady decline in the American Indian population from first contact with Europeans to the turn of the twentieth century (Thornton 1987), with a population nadir in 1900 at about 240,000. The slow but fairly steady population increase between 1900 and 1950 reflects competing forces of high fertility and reduced mortality on the one hand, and powerful federally-backed assimilation programs on the other (Thornton 1987). In 1950, there were about 350,000 American Indians enumerated in the U.S. Census (Beale 1958).

An accurate count of the American Indian population has consistently been a struggle. Over 60 years ago, Census Bureau employee Calvin Beale (1958:537) wrote "Although there is

little Indian immigration or emigration, no notion of the biological natural increase of Indians can be gained from the data for successive censuses. At a given census the size of the Indian population count appears to depend largely upon whether or not a special Indian schedule is used....” For example, when enumerators would visit each home and discern each person’s race through observation or assumption (before 1960), American Indians living in non-stereotypical places were rather unlikely to be coded correctly.

In 1960, the census began the transition to a mail format and the American Indian population boom began. Self-identified American Indians came forward and, along with new births, caused a 46.5% population jump between 1950 and 1960 (Thornton 1987:160). If enumerator error were the only issue, the corrective jump would have appeared only in 1960. This was not the case. In each census since, the population has increased by hundreds of thousands. Nagel (1995, 1996) and Quinn (1990) documented personal identity resurgence through their qualitative investigations; they found many people experienced substantive and enduring identity changes. Demographers highlighted and decomposed each successive census, showing that much of the growth in the American Indian population cannot be explained by births or immigration (Eschbach 1993; Eschbach, Supple, and Snipp 1998; Harris 1994; Passel 1976, 1997; Passel and Berman 1986).

Substantive reasons for the large net increase in the number of people racially identifying as American Indian remain unclear and include at least four possibilities supported by prior research. One: Negative stereotypes and cultural repression that worked to reduce American Indian identification in the early twentieth century have waned, and therefore culturally-American Indian people may be more willing to embrace their identity publicly (Nagel 1995, 1996). Two: The growth may be mostly due to small changes among American whites who see

American Indian ancestry as parallel to a European ancestry (Hout and Goldstein 1994; Snipp 1989; Waters 1990); for them, American Indian may be part of an “optional” or “symbolic” ethnicity which has become increasingly appealing (Alba 1990; Waters 1990). Three: It might be related to marriage. People change their ancestry and race reports to highlight similarities with their spouses (Lieberson and Waters 1986; Loveman and Muniz 2007) and perhaps new spouses of American Indians similarly highlight their own American Indian background after the marriage. And four: individuals may be acting instrumentally, aiming to establish themselves as suitable beneficiaries of any political or financial benefits of being American Indian (Nagel 1994; Quinn 1990). We cannot adjudicate between these reasons, but we note that the latter three possibilities imply a weak connection to culture, language, communities, and even to the American Indian race response itself, among the newly identified American Indians.

Areas of Uneven Growth

Growth in a population due to changes in race responses is likely to be uneven across the group. Prior research has begun to illustrate some of the dimensions of change. In this section, we review results of previous research about population size change among race or ethnic groups, as related to age, gender, Latino status, education, and birth state. We end by discussing patterns of multiple-race identification, though this cannot be considered a pattern of change because the 1990 Census instructed respondents to mark only one race.

Age: Life course scholars and developmental psychologists would argue that changing a race or ethnic response is more likely at some ages (e.g., adolescence) or some life course stages (e.g., leaving home for college). Most prior research on large scale identification change has included age as a primary line of investigation, with two consistent results. First, young adults are the most likely to change their response from one census to another (Anderson and Silver

1983; Lieberman and Waters 1986; Loveman and Muniz 2007). Second, substantial numbers of people in *all* age groups change their identification (Alba and Islam 2009; Anderson and Silver 1983).

Gender: Identity, socialization, and cultural scripts differ for men and women, so gender variation in patterns of race response can be expected. Unfortunately, the data analyzed in prior work has not always allowed decomposition by gender. The data for early twentieth century Puerto Rico allowed Loveman and Muniz (2007) to study how race boundaries shift differently by age and gender. They found an especially large increase in the population of young white women (ages 20 to 24) and suggest that spousal reclassification is a likely explanation. Homogamy created by post-marriage white ethnic reidentification has been observed in other populations (Alba 1990; Waters 1990).

Latino: The U.S. Latino population has grown remarkably in the past several decades. The Latino American Indian population has also been increasing, purportedly because more Latinos are marking the American Indian race response (Decker 2011). To our knowledge, we are the first social scientists to explore this dynamic. Analyzing identity change among Latino American Indians is complex because Latino identification has been shown to change; as his or her education and income increase, the likelihood that a Mexican origin person will report Latino status decreases (Alba and Islam 2009; Duncan and Trejo 2011). This countervailing trend away from Latino identification may dampen the observed net increase in Latino American Indians.

Education: Racial self-perception and perception by others can be influenced by a person's achieved education, and can also affect the person's educational attainment. For example, racial self-perception is complicated for more educated people: they give more complex responses to ancestry questions (Lieberman and Waters 1993) and those of Mexican

heritage are less likely to report Hispanic origin (Duncan and Trejo 2011). Loveman and Muniz (2007) concluded that Puerto Ricans in 1920 were perceived and categorized by enumerators differently after increasing their education. Unfortunately, our cross-sectional comparison cannot disaggregate these dynamics. Instead, we can simply disaggregate the American Indian population by education level to identify net patterns, as Eschbach, Supple, and Snipp (1998) did for newly identified American Indians in 1980 and 1990. They found that new American Indians in 1980 were more educated, on average, than previously identified American Indians. They did not find a difference in the education of newly identified American Indians in 1990.

Birth State: Few characteristics of an individual are likely to be reported identically ten years later. Birth state is one of these rare characteristics. Because characteristics of a person's location are related to the development and maintenance of their racial identity (Eschbach 1992; Harris and Sim 2002; Kanaiaupuni and Liebler 2005), features of their birth state may affect each person's childhood racial identity development. Prior research has not included birth place as a focal variable, though state of residence has occasionally been included.⁸ Eschbach (1993) reports that the American Indian population increase between 1970 and 1980 was mostly located outside of the "old Indian region,"⁹ probably because those in the old Indian region who could potentially identify as American Indian would have done so since birth, thus reducing identification shifts in those states.

Identification as Multiple-Race

⁸ About 70% of Americans currently live in their birth state.

⁹ The "old Indian region," as defined by Eschbach (1993) includes 10 states: AK, AZ, MN, MT, NC, ND, NM, OK, SD, and WI. In 1930, 77% of American Indians lived in one of these states.

The third portion of our analysis asks whether some new American Indians moved directly to single-race American Indian, rather than reporting multiple races. This possibility is sometimes overlooked by casual observers, perhaps because the single-race American Indian population in 2000 is about the same size as the 1990 American Indian population. This oversight is analytically convenient because it supports the assumption that the multiple-race American Indian population can be ignored in cross-time comparisons.

We question this assumption based on both quantitative and qualitative evidence. All previous quantitative research on population increases among American Indians has been documenting single race response changes; each census for over half a century has had hundreds of thousands of single race new American Indians. We see no reason for the 1990 to 2000 period to be different. Also, qualitative evidence shows that single race responses are common among people who have become American Indian through an identity awakening (e.g., Liebler 2001).

Data and Methods

Data

For our primary analyses, we utilized the full count non-public versions of the 1990 and 2000 decennial census microdata available through the Census Research Data Center network. These data contain all census respondents, as opposed to the public use files which are samples. Full-count data provide maximally accurate estimates of the sizes of each sub-population under study.¹⁰

¹⁰ The non-public data also list detailed race codes, including write-in responses and two-race responses. Some of these are American Indian responses which are probably coded as “other race” in the public data.

In 1990 and 2000, the census long form was given to 1 in 6 households. For analyses involving measures of education or birth state, we use the non-public versions of the long form data which contain records for all long form respondents. The Census Bureau creates weights that can be applied to make the long form data nationally representative, but the population estimates in the weighted long form data do not exactly match the full count data (Hefter and Gbur 2002; Schindler, Griffin and Swan 1992). A difference of 1-3% is common. In both 1990 and 2000, the weighted long form data give slightly larger estimates of the American Indian population than does the full count data. To account for this different base population size, we first deflate all numerical estimates that are derived from the long form data. Only after deflation do we apply use weighted long form counts in the sample selection adjustments of the full count data described below.¹¹

To protect respondent confidentiality, the non-public data can be used only with explicit permission from the Census Bureau by researchers with federal security clearance. All results are reviewed and approved by the Census Bureau before dissemination. To further protect against disclosure risk, we present our results in rounded numbers.

Calculation of Expected Population Size using 1990 Full Count Data

To calculate the expected number of American Indian responses in the full count data from 2000, we began with the full count microdata from the 1990 census and adjusted for

¹¹ The deflation quotient for 1990 was 0.971 and for 2000 was 0.958.

mortality, immigration, and other factors as described below. These data include cases for all people¹² in the U.S. at the time, including 1,967,000 American Indians.

Before calculating mortality estimates, we excluded cases in the 1990 data based on three criteria. First, to eliminate population differences due to varying imputation practices, we excluded cases in which the race response was imputed (n=69,000). Second, to account for immigration as a source of population increase, we exclude an estimated number of foreign born individuals. We estimate the number of foreign born individuals by age, gender, and Latino status using the information from the long form questionnaire, deflated as described above. Then, for each age/gender/Latino category in the full count data, we subtracted the estimated number of foreign born American Indians. This resulted in a reduction of 57,000 expected American Indians. Third, some West Indians and Asian Indians mistakenly mark the American Indian category on the census form (Liebler 2004). We used long form information on language and ancestry to identify “American Indians” whose answers strongly imply that they are actually Asian Indian or West Indian. We subtracted the deflated estimated number from each age/gender/Latino status category, reducing the total by 700. These steps reduced the cases to a total of 1,840,300 American Indians in the 1990 base population.

We estimated the mortality of the base population between 1990 and 2000 by applying single decrement life tables with race-, gender-, and single year of age-specific mortality rates

¹² The Census Bureau estimates an undercount rate of 4.5% among American Indians (92,681 people) in the 1990 Census and a slight net overcount of American Indians (1.16% overcount off reservations and 0.3% undercount on reservations) in Census 2000.

(National Center for Health Statistics 2003).¹³ The result was 1,748,000 people; in other words, if no one had changed their race response we would expect 1,748,000 U.S.-born American Indians, ages 10 and older, in Census 2000.

Calculation of Expected Population Size using 1990 Long Form Data

For changes in education and in birth state characteristics, we used the weighted long form data to calculate both the observed and the expected population sizes. We calculated the expected population size in a manner parallel to that described above – we removed cases whose race was imputed by the Census Bureau, foreign born individuals, and those who appear to be West Indian or Asian Indian, then applied the same mortality adjustment. The weighted long form data leads us to estimate that if no one had changed their race response we would expect 1,841,700 U.S.-born American Indians, ages 10 and older, in Census 2000.

Case Selection for Observed Population Size using 2000 Data

There were 4,010,000 American Indians enumerated in the Census 2000 full count data. We excluded cases in order to make a clean comparison to the expected population size. We first excluded 746,000 children born between the censuses. Then we removed 168,000 cases in which the race response was imputed. We used the Census 2000 long form data to estimate the number of foreign born American Indians in 2000 and subtracted the deflated estimated number (totaling 221,000) from each age/gender/Latino category; using a parallel strategy, we removed 3,400

¹³ We use American Indian mortality rates. Because American Indian race is underreported on death certificates (Epstein, Moreno, and Bacchetti 1997), leading to artificially low mortality rate estimates for American Indians, we may be overestimating the number of 1990 American Indians surviving to 2000. Eschbach, Supple, and Snipp (1998) conducted a sensitivity test on this issue and found that it did not affect their results.

cases whose responses strongly imply that they are West Indian or Asian Indian. This leaves 2,871,600 American Indians observed in the Census 2000 full count data – 1,031,300 million more than expected.

For the birth state and education comparison with 1990 long form data, we applied parallel calculations to the 2000 long form data to get 3,090,800 observed American Indians in 2000; this is 1,249,100 more American Indians than were expected based on the 1990 long form data.

Sub-Population Characteristics

We compared the observed and expected populations by specific age, though we present age categorically below. Individuals were assumed to have not changed their gender or birth state response across the decade. However, a small number of changes would not affect our results. We categorized a person as Latino if he or she reported being of Hispanic, Spanish, or Latino origin (this question is separate from the race question). We restrict the study of education to adults who were at least 25 in 1990, but some increases in the population's education are due to personal increases in educational attainment.

Analytic Strategy and Multiple-Race Responses

In addressing the first two research questions, we compare the expected sizes of each sub-population to the total observed size of that sub-population without regard to the number of races a person reported. For the third research question, we delve into the question of who marked multiple races. Multiple-race responses are common among American Indians; about 40% of the observed American Indian population reported more than one race in 2000.¹⁴

¹⁴ Estimates of the size of the multiple race population differ substantially between the long form and full count data due to weights accounting for estimated non-response (Hefter and Gbur

Unfortunately, these data give cross-sectional information about the same population at two points in time; they are not longitudinal and do not allow us to know about individuals' previous race responses. Nevertheless, we make fruitful comparisons of the aggregate population sizes.

Results

Numerical Increase

Our first research question asks which subpopulations had the largest net increases between 1990 and 2000. In Figure 1, we present two overlaid population pyramids. The darker and smaller of these represents the expected population distribution of American Indians by age and gender; this pyramid shows a stationary form, with signs of the baby boom, baby boom echo, and higher life expectancy of women. The lighter and larger population pyramid, showing the observed population in 2000, illustrates the bulky changes in the population structure; young baby boomers and teens, especially women and girls, dominate the newer American Indian population. See Table 1 for case counts underlying Figures 1, 2, 5, and 6.

To better understand age and gender variation in numerical increase, we focus in Figure 2 on the area of Figure 1 in the visible portion of the lighter bars. In other words, Figure 2 shows the net gain in population for each age and gender sub-population of American Indians between 1990 and 2000. We have further disaggregated the net gain by Latino status. This figure shows that the new American Indians are of all age groups, in both genders, and include both Latinos and non-Latinos. The bulk of new American Indians in 2000, however, were women in their mid

2002). In the long form data, 1,347,500 of 3,090,800 are multiple race American Indians (43.6%). In the full count data, 1,147,000 of 2,871,600 are multiple race (39.9%).

Figure 1
Expected and Observed AIAN Population in 2000,
by Age and Sex



Figure 2
Net Gain in the AIAN Population between 1990 and 2000, by Latino Origin

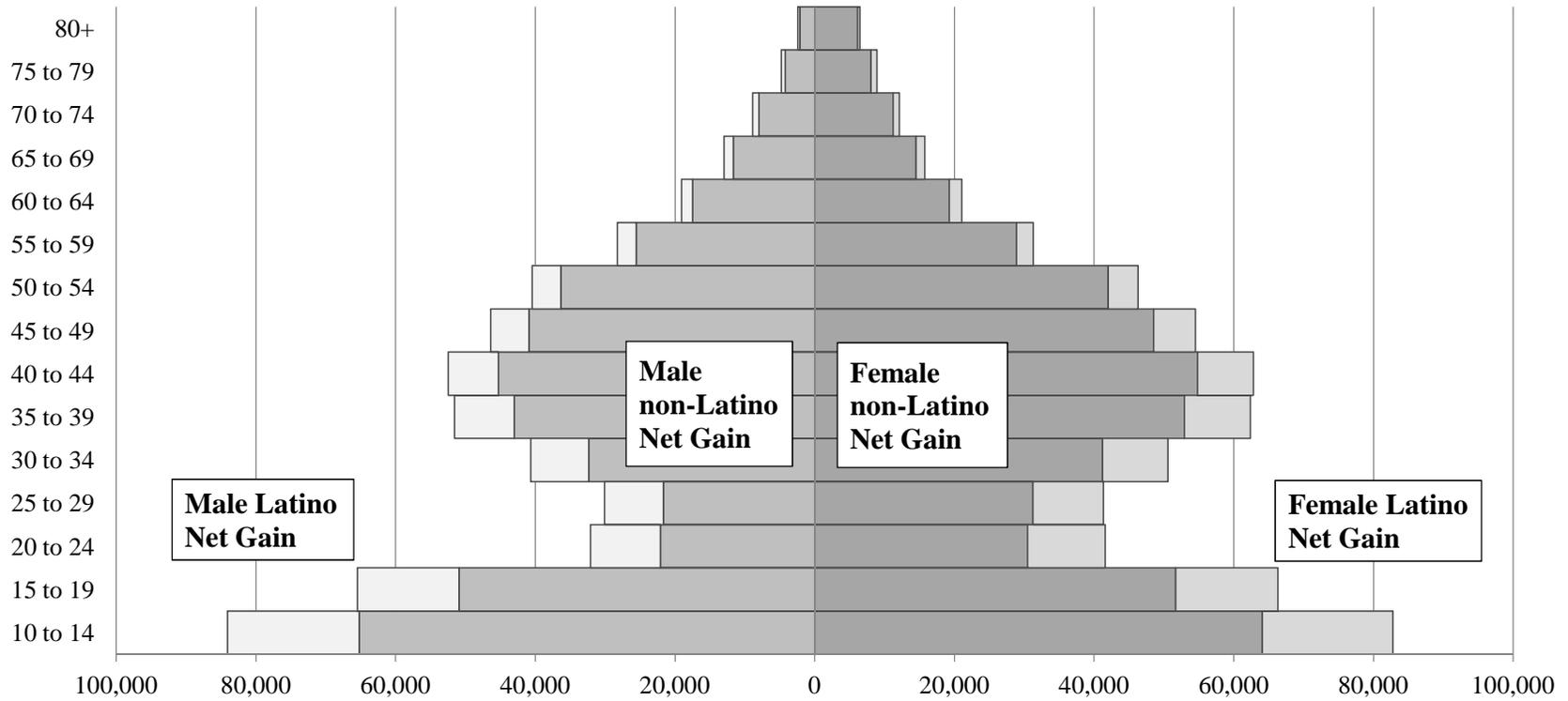


Table 1: Expected and Observed Sub-Population Sizes for AIANs in 2000, by Age, Sex, and Latino Status

Expected and observed <i>non-Latino male</i> AIANs in 2000						
Age	(1)	(2)	(3)	(4)	(5)	(6)
	expected number	observed number			(2) - (1) new AIANs	(5) - (4)
		total	1 race	2+ races		
10 to 14	88,050	153,300	94,950	58,350	65,250	6,900
15 to 19	87,200	138,150	85,100	53,050	50,950	-2,100
20 to 24	82,400	104,500	66,700	37,800	22,100	-15,700
25 to 29	79,100	100,800	65,200	35,600	21,700	-13,900
30 to 34	70,650	103,050	65,850	37,200	32,400	-4,800
35 to 39	73,050	116,100	72,000	44,100	43,050	-1,050
40 to 44	69,150	114,450	68,550	45,900	45,300	-600
45 to 49	61,300	102,250	59,850	42,400	40,950	-1,450
50 to 54	51,450	87,800	50,150	37,650	36,350	-1,300
55 to 59	39,000	64,600	36,200	28,400	25,600	-2,800
60 to 64	29,900	47,400	26,750	20,650	17,500	-3,150
65 to 69	22,300	34,000	18,800	15,200	11,700	-3,500
70 to 74	17,100	25,100	13,300	11,800	8,000	-3,800
75 to 79	12,250	16,500	8,550	7,950	4,250	-3,700
80+	12,250	14,400	7,150	7,250	2,150	-5,100

Expected and observed <i>Latino male</i> AIANs in 2000						
Age	(1)	(2)	(3)	(4)	(5)	(6)
	expected number	observed number			(2) - (1) new AIANs	(5) - (4)
		total	1 race	2+ races		
10 to 14	9,450	28,300	15,850	12,450	18,850	6,400
15 to 19	8,400	22,950	13,050	9,900	14,550	4,650
20 to 24	7,100	17,150	10,750	6,400	10,050	3,650
25 to 29	6,350	14,750	9,850	4,900	8,400	3,500
30 to 34	5,650	13,950	9,350	4,600	8,300	3,700
35 to 39	5,050	13,600	9,100	4,500	8,550	4,050
40 to 44	4,300	11,500	7,600	3,900	7,200	3,300
45 to 49	3,800	9,250	6,100	3,150	5,450	2,300
50 to 54	2,900	7,000	4,500	2,500	4,100	1,600
55 to 59	1,700	4,400	2,900	1,500	2,700	1,200
60 to 64	1,400	3,000	1,900	1,100	1,600	500
65 to 69	950	2,250	1,400	850	1,300	450
70 to 74	750	1,650	1,000	650	900	250
75 to 79	500	1,050	700	350	550	200
80+	450	750	500	250	300	50

Expected and observed *non-Latino female* AIANs in 2000

Age	(1)	(2) observed number			(5)	(6)
	expected number	total	1 race	2+ races	(2) - (1) new AIANs	(5) - (4)
10 to 14	85,250	149,300	91,750	57,550	64,050	6,500
15 to 19	84,900	136,550	83,600	52,950	51,650	-1,300
20 to 24	80,050	110,500	70,250	40,250	30,450	-9,800
25 to 29	76,000	107,200	69,150	38,050	31,200	-6,850
30 to 34	69,550	110,750	70,100	40,650	41,200	550
35 to 39	76,350	129,250	79,950	49,300	52,900	3,600
40 to 44	76,100	130,900	77,550	53,350	54,800	1,450
45 to 49	67,550	116,050	66,700	49,350	48,500	-850
50 to 54	56,450	98,450	54,300	44,150	42,000	-2,150
55 to 59	42,600	71,450	39,100	32,350	28,850	-3,500
60 to 64	33,250	52,500	29,350	23,150	19,250	-3,900
65 to 69	26,000	40,500	22,300	18,200	14,500	-3,700
70 to 74	20,650	31,850	16,500	15,350	11,200	-4,150
75 to 79	16,450	24,500	12,150	12,350	8,050	-4,300
80+	22,250	28,350	13,050	15,300	6,100	-9,200

Expected and observed *Latino female* AIANs in 2000

Age	(1)	(2) observed number			(5)	(6)
	expected number	total	1 race	2+ races	(2) - (1) new AIANs	(5) - (4)
10 to 14	9,300	28,000	15,350	12,650	18,700	6,050
15 to 19	8,600	23,250	13,000	10,250	14,650	4,400
20 to 24	7,100	18,200	10,600	7,600	11,100	3,500
25 to 29	5,800	15,900	9,750	6,150	10,100	3,950
30 to 34	5,200	14,550	9,200	5,350	9,350	4,000
35 to 39	5,250	14,700	9,350	5,350	9,450	4,100
40 to 44	5,000	13,000	8,200	4,800	8,000	3,200
45 to 49	4,300	10,300	6,500	3,800	6,000	2,200
50 to 54	3,150	7,400	4,600	2,800	4,250	1,450
55 to 59	2,150	4,550	2,800	1,750	2,400	650
60 to 64	1,400	3,200	2,000	1,200	1,800	600
65 to 69	1,100	2,350	1,450	900	1,250	350
70 to 74	900	1,800	1,150	650	900	250
75 to 79	600	1,450	950	500	850	350
80+	850	1,200	650	550	350	-200

Data: 1990 and 2000 Census full count data, accessed through the Research Data Center Network.

30s to mid 50s and teenage girls. People in their 20s in 2000 and elders are not a numerically large part of the new American Indian population.

In Figure 3, we compare the expected and observed educational attainment among American Indian adults ages 35 and older in 2000. In both the expected and observed populations, the bulk of American Indian adults have no college degree. The largest numerical increases were among people with a high school diploma, GED, or some college but no degree.

To provide some geographic context to these population increases, we compare the observed and expected population sizes by birth state. Figure 4 illustrates the net gain in American Indians with each birth state; related numbers are listed in Table 2. For example, compared to the expected number, there were about 23,550 non-Latinos who newly listed their race as including American Indian and their birth state as Alabama; in other words, more than 23,000 of the new American Indians were born in Alabama. Over half of Latino new American Indians were born in either Texas or California. With the exception of Oklahoma, the largest net gains are not in the old Indian region (Eschbach 1993); the most common birth states for non-Latino new American Indians were CA, OK, TX, NY, MI, and OH. There was little unexplained net gain in the American Indian population born in traditionally American Indian states.

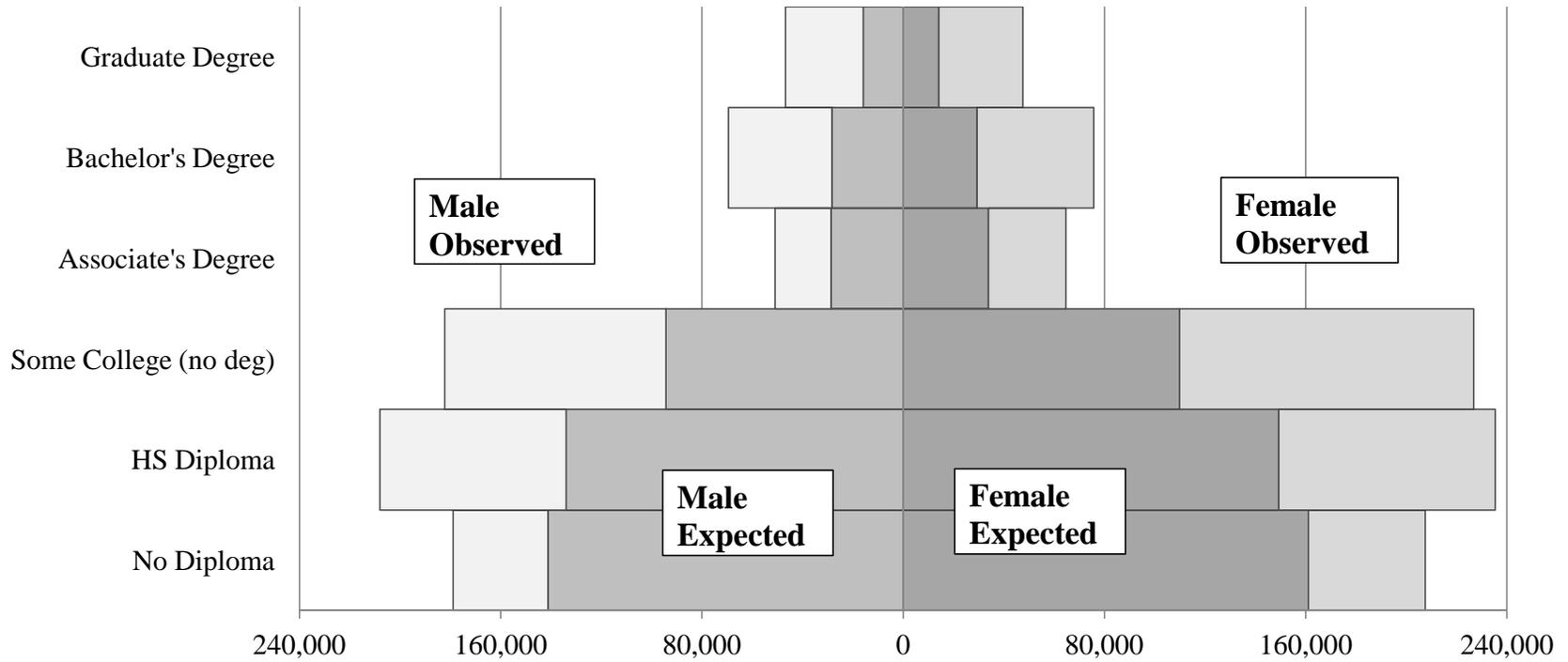
Disproportionate Growth

Our second research question requires us to identify sub-populations with large *proportionate* increases. These groups may have particularly compelling reasons for marking American Indian for the first time in 2000.¹⁵

In Figure 5, we express the observed population size as a percentage of the expected population size. For example, the observed number of non-Latino men ages 30 to 34 in 2000 is

¹⁵ We do not interpret results when a sub-group had a very small expected population.

Figure 3
Expected and Observed AIAN Population in 2000,
by Educational Attainment



Note: Includes only respondents age 35 and older in 2000. Expected value does not take into account personal gains in education.

Figure 4
Numerical difference between the observed number of American Indians in 2000
and the expected population size in 2000, by state of birth

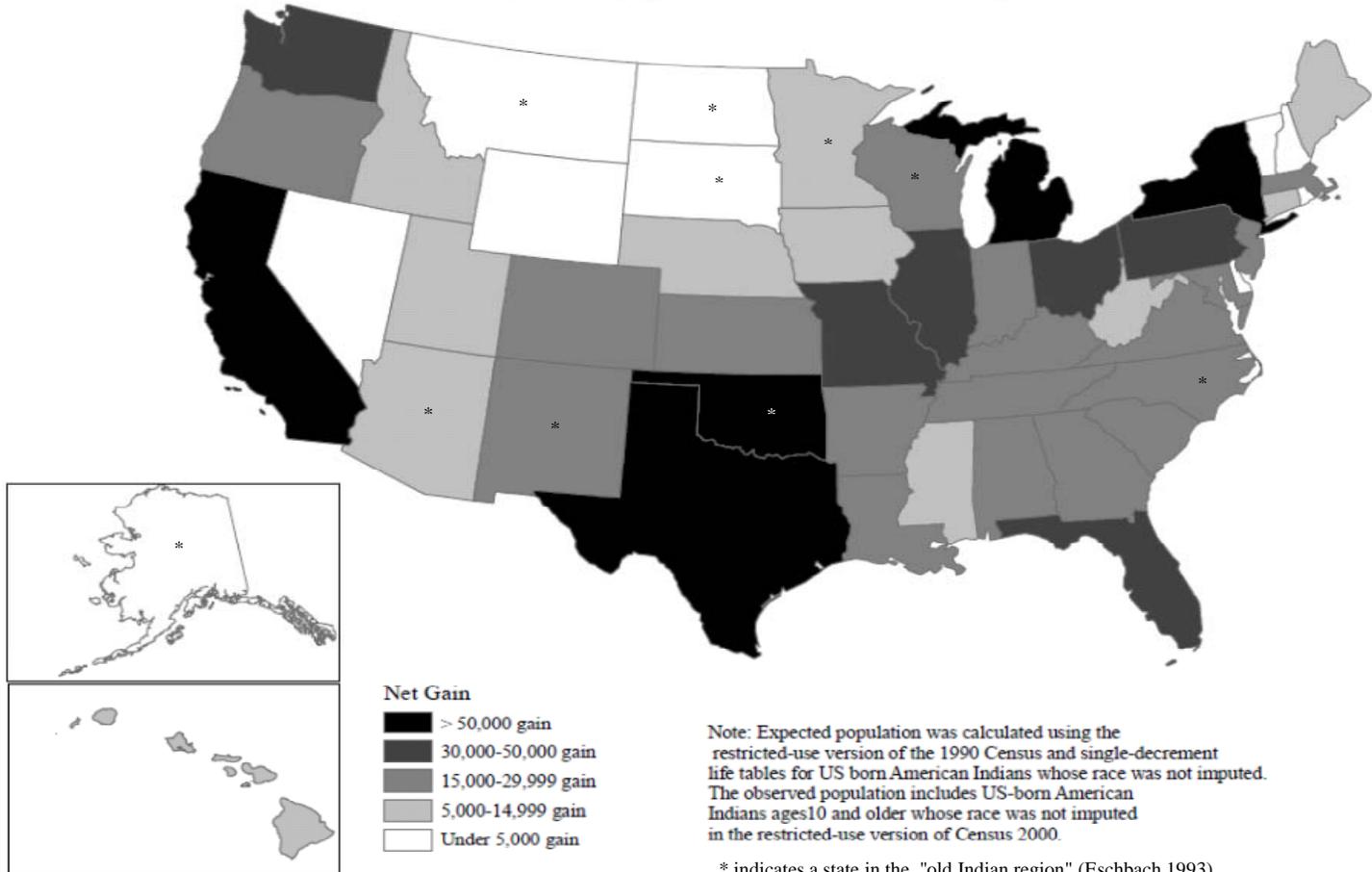


Table 2: Expected and Observed Sub-Population Sizes for AIANs in 2000, by Birth State, Education, and Latino Status

Expected and observed <i>non-Latino</i> AIANs in 2000, by birth state						
Birth State	(1)	(2)	(3)	(4)	(5)	(6)
	expected number	observed number			(2) - (1)	(5) - (4)
		total	1 race	2+ races	new AIANs	
Alabama	19,000	42,550	18,150	24,400	23,550	-850
Alaska	83,800	87,000	73,600	13,400	3,200	-10,200
Arizona	180,150	187,400	171,650	15,750	7,250	-8,500
Arkansas	19,500	41,450	16,800	24,650	21,950	-2,700
California	154,900	304,000	143,500	160,500	149,100	-11,400
Colorado	17,000	32,850	16,950	15,900	15,850	-50
Connecticut	5,150	16,800	5,650	11,150	11,650	500
Delaware	1,700	3,700	1,750	1,950	2,000	50
DC	3,850	10,200	2,950	7,250	6,350	-900
Florida	20,600	50,650	19,950	30,700	30,050	-650
Georgia	11,050	34,900	11,650	23,250	23,850	600
Hawaii	3,950	12,450	3,200	9,250	8,500	-750
Idaho	11,200	16,150	10,350	5,800	4,950	-850
Illinois	23,850	61,700	19,650	42,050	37,850	-4,200
Indiana	13,600	36,850	12,050	24,800	23,250	-1,550
Iowa	7,750	16,200	7,200	9,000	8,450	-550
Kansas	20,850	41,000	18,500	22,500	20,150	-2,350
Kentucky	9,650	29,950	8,500	21,450	20,300	-1,150
Louisiana	19,100	41,850	21,150	20,700	22,750	2,050
Maine	6,050	11,850	5,850	6,000	5,800	-200
Maryland	8,850	23,600	9,050	14,550	14,750	200
Massachusetts	10,600	29,150	9,950	19,200	18,550	-650
Michigan	52,400	100,600	45,500	55,100	48,200	-6,900
Minnesota	42,000	53,900	36,200	17,700	11,900	-5,800
Mississippi	10,200	21,300	9,550	11,750	11,100	-650
Missouri	21,250	53,700	18,700	35,000	32,450	-2,550
Montana	48,000	51,700	42,750	8,950	3,700	-5,250
Nebraska	11,950	17,400	10,550	6,850	5,450	-1,400
Nevada	12,600	15,800	11,550	4,250	3,200	-1,050
New Hampshire	1,600	5,350	1,650	3,700	3,750	50
New Jersey	9,750	27,700	8,400	19,300	17,950	-1,350
New Mexico	124,550	137,700	128,150	9,550	13,150	3,600
New York	43,150	97,850	40,100	57,750	54,700	-3,050

North Carolina	79,050	104,600	76,550	28,050	25,550	-2,500
North Dakota	30,400	32,100	27,650	4,450	1,700	-2,750
Ohio	21,300	69,350	19,800	49,550	48,050	-1,500
Oklahoma	247,500	322,450	213,600	108,850	74,950	-33,900
Oregon	28,150	48,600	24,750	23,850	20,450	-3,400
Pennsylvania	13,950	45,700	13,100	32,600	31,750	-850
Rhode Island	3,600	8,350	3,850	4,500	4,750	250
South Carolina	8,900	23,750	11,100	12,650	14,850	2,200
South Dakota	54,100	53,950	47,750	6,200	-150	-6,350
Tennessee	13,150	35,200	10,850	24,350	22,050	-2,300
Texas	47,750	118,500	51,000	67,500	70,750	3,250
Utah	17,400	23,000	17,100	5,900	5,600	-300
Vermont	1,850	5,750	2,150	3,600	3,900	300
Virginia	12,250	37,200	13,400	23,800	24,950	1,150
Washington	59,000	87,150	51,650	35,500	28,150	-7,350
West Virginia	6,300	19,350	5,600	13,750	13,050	-700
Wisconsin	36,400	50,250	34,300	15,950	13,850	-2,100
Wyoming	8,950	11,700	8,550	3,150	2,750	-400

Expected and observed *Latino* AIANs in 2000, by birthstate

Birth State	(1)	(2)		(3)	(4)	(5)	(6)
	expected number	observed number		1 race	2+ races	(2) - (1)	(5) - (4)
Alabama	200	450	150	300	250	-50	
Alaska	900	1,250	700	550	350	-200	
Arizona	10,950	17,400	11,600	5,800	6,450	650	
Arkansas	250	650	250	400	400	0	
California	39,400	101,450	54,050	47,400	62,050	14,650	
Colorado	5,450	15,500	8,600	6,900	10,050	3,150	
Connecticut	250	900	400	500	650	150	
DC	50	600	150	450	550	100	
Florida	850	3,250	1,300	1,950	2,400	450	
Georgia	250	900	400	500	650	150	
Hawaii	900	3,550	350	3,200	2,650	-550	
Idaho	850	1,050	600	450	200	-250	
Illinois	2,400	7,650	4,050	3,600	5,250	1,650	
Indiana	500	1,400	700	700	900	200	
Iowa	550	700	350	350	150	-200	
Kansas	1,350	2,350	1,100	1,250	1,000	-250	
Kentucky	200	500	200	300	300	0	
Louisiana	750	1,900	700	1,200	1,150	-50	

Maryland	250	900	300	600	650	50
Massachusetts	600	1,300	550	750	700	-50
Michigan	2,600	5,000	2,250	2,750	2,400	-350
Minnesota	1,100	1,950	950	1,000	850	-150
Mississippi	150	450	200	250	300	50
Missouri	650	1,250	450	800	600	-200
Montana	1,150	1,350	850	500	200	-300
Nebraska	650	1,300	900	400	650	250
Nevada	1,250	1,700	900	800	450	-350
New Jersey	650	2,750	1,200	1,550	2,100	550
New Mexico	6,700	14,650	9,050	5,600	7,950	2,350
New York	4,100	16,400	7,250	9,150	12,300	3,150
North Carolina	650	1,050	400	650	400	-250
North Dakota	250	450	300	150	200	50
Ohio	800	2,550	1,200	1,350	1,750	400
Oklahoma	4,700	5,700	3,450	2,250	1,000	-1,250
Oregon	1,600	2,450	1,100	1,350	850	-500
Pennsylvania	750	2,300	700	1,600	1,550	-50
Rhode Island	150	350	150	200	200	0
South Carolina	150	450	100	350	300	-50
South Dakota	1,100	900	700	200	-200	-400
Tennessee	300	400	150	250	100	-150
Texas	10,700	38,100	23,900	14,200	27,400	13,200
Utah	1,000	2,200	1,300	900	1,200	300
Virginia	350	1,250	350	900	900	0
Washington	3,000	5,250	2,600	2,650	2,250	-400
West Virginia	100	300	100	200	200	0
Wisconsin	1,200	2,600	1,550	1,050	1,400	350
Wyoming	750	1,300	850	450	550	100

Expected and observed *non-Latino* AIANs, by educational attainment

	(1)	(2)	(3)	(4)	(5)	(6)
Completed Education	expected number	observed number			(2) - (1)	(5) - (4)
		total	1 race	2+ races	new AIANs	
Less than HS	288,100	359,200	226,800	132,400	71,100	-61,300
HS or GED	271,200	416,650	234,800	181,850	145,450	-36,400
Some col. (no deg)	193,150	381,750	189,450	192,300	188,600	-3,700
Associate's degree	59,250	107,900	55,650	52,250	48,650	-3,600
Bachelor's degree	55,450	136,700	62,850	73,850	81,250	7,400
Graduate degree	28,650	89,150	38,100	51,050	60,500	9,450

Expected and observed *Latino* AIANs , by educational attainment

	(1)	(2)	(3)	(4)	(5)	(6)
Completed Education	expected number	observed number			(2) - (1)	(5) - (4)
		total	1 race	2+ races	new AIANs	
Less than HS	14,200	27,150	18,250	8,900	12,950	4,050
HS or GED	12,050	26,750	15,550	11,200	14,700	3,500
Some col. (no deg)	10,950	27,300	14,750	12,550	16,350	3,800
Associate's degree	3,400	7,700	4,100	3,600	4,300	700
Bachelor's degree	2,350	8,450	3,800	4,650	6,100	1,450
Graduate degree	1,450	5,300	2,200	3,100	3,850	750

Notes: DE, ME, NH, and VT were extremely rare birth states for Latino AIANs so numbers are not shown. Education data include only people ages 25+ in 1990 and 35+ in 2000.

Data: 1990 and 2000 Census long form data (17% samples), accessed through the Research Data Center Network

about 150% of the number to be expected. Among non-Latino American Indians of both genders, most observed age categories are about 150% to 175% of the size they were expected to be. Although women and girls are *numerically* dominant among new non-Latino American Indians, their *proportionate* increase is very similar to men's.

The proportionate increase among Latino American Indians, shown in Figure 6, is remarkably larger than that among non-Latinos. About twice as many Latino males of all ages reported American Indian in 2000, compared to what was expected. The number of American Indian Latino girls and women under 50 grew by more than 250%.

Adults with higher educational attainment are disproportionately over-represented among people who newly marked American Indian race in 2000, as shown in Figure 7. There are about three times as many American Indians with graduate degrees in the observed population as in the expected population, and about 2.5 times as many with bachelor's degrees. The observed size of the American Indian population with less than a high school education, in contrast, is very near the expected size.

The birth state map shown in Figure 8 reveals that people born in Atlantic states, the lower Midwest, Texas, and Hawaii were particularly likely to newly select American Indian race in 2000. Birth states with long-standing American Indian populations (i.e., the old Indian region) did not see substantial proportionate increases.

Multiple Race Responses

Our third research question inquires whether it is plausible that all of the new American Indians gave a multiple race response in 2000. We find that this is not a safe assumption. Instead, we find evidence that a substantial number of the new American Indians reported it as their only race and that this was especially common among Latino American Indians.

Figure 5
2000 Non-Latino AIAN Population as a Percent of
the 1990 Non-Latino AIAN Population

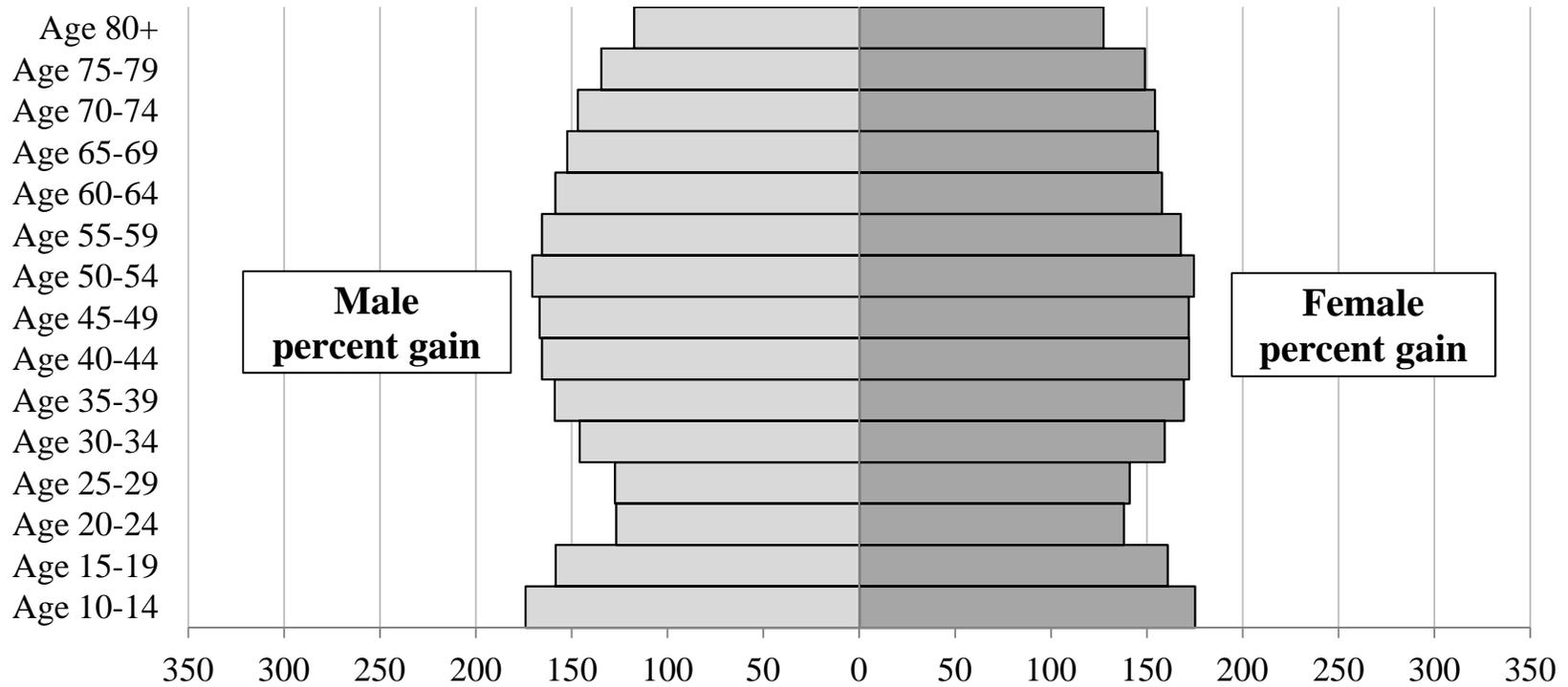


Figure 6
2000 Latino American AIAN Population as a Percent of
the 1990 Latino AIAN Population

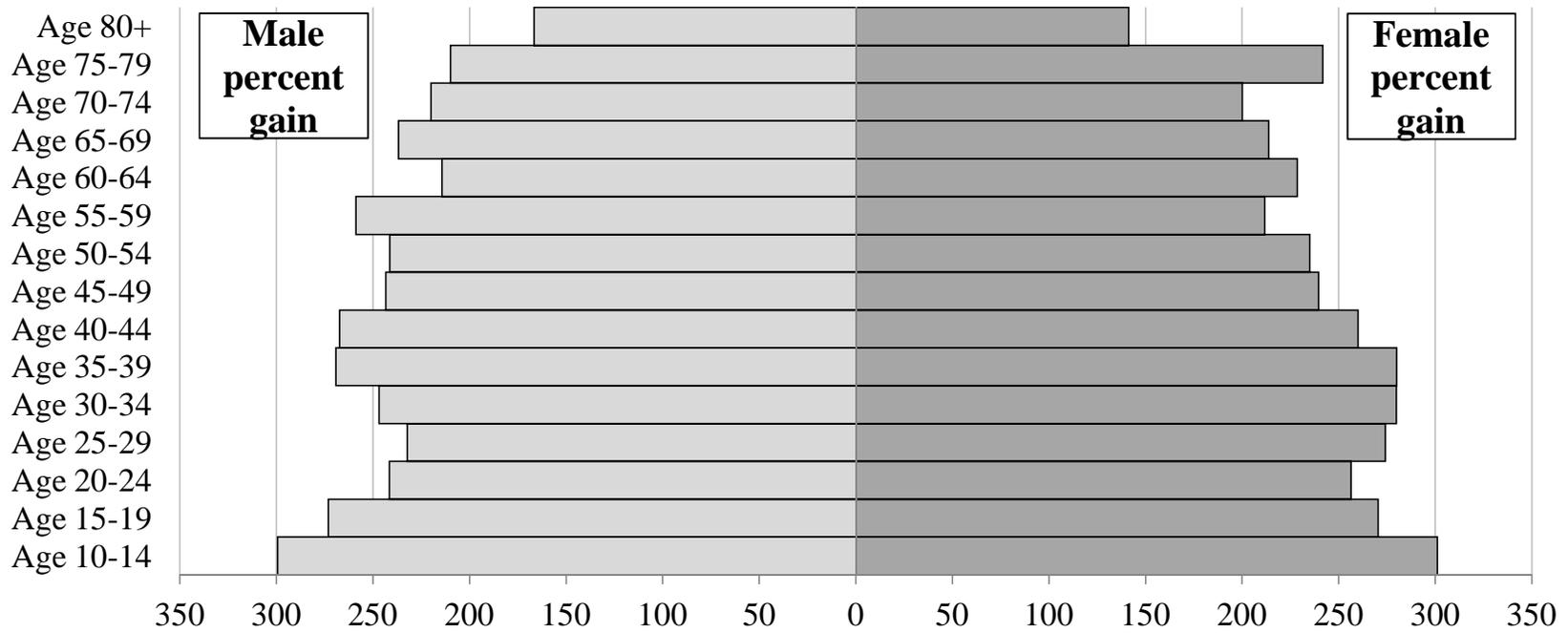


Figure 7
2000 AIAN Population as a Percent of the 1990 AIAN
Population, by Educational Attainment (age 35+ in 2000)

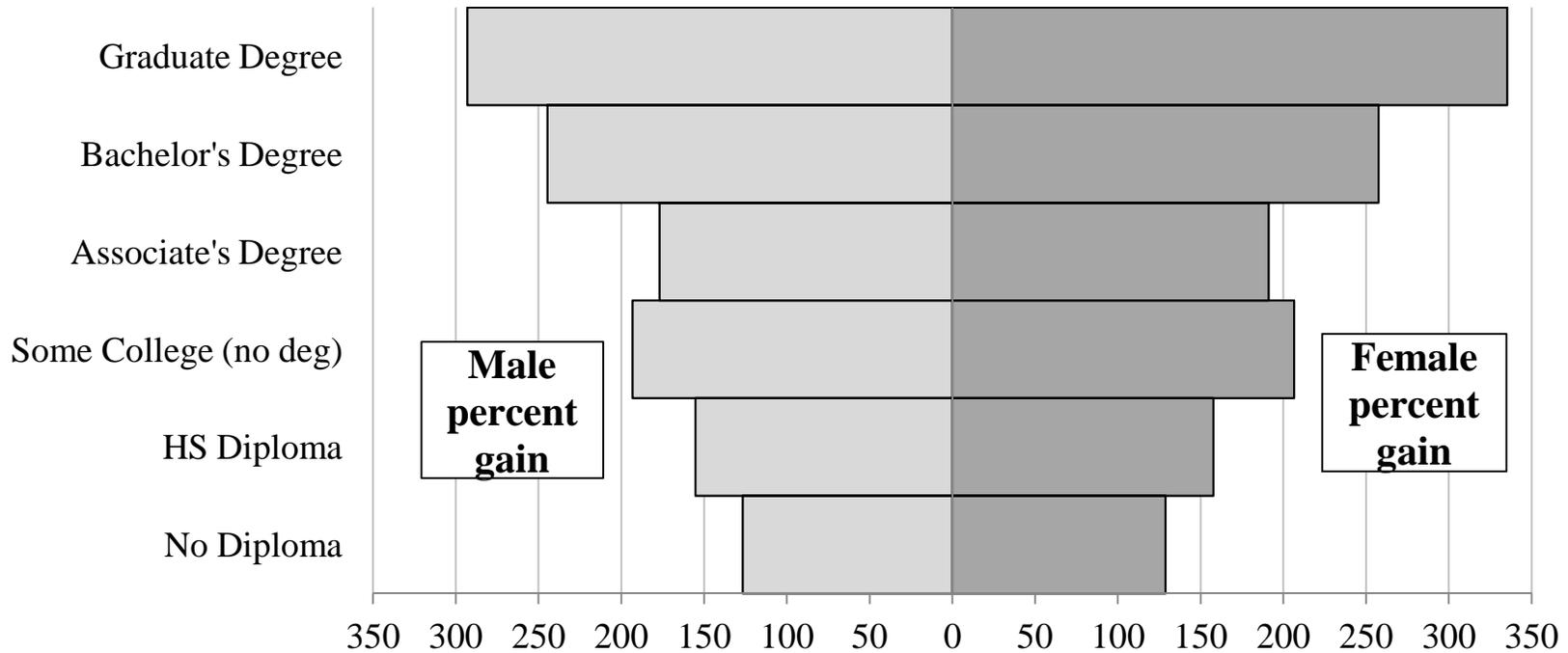
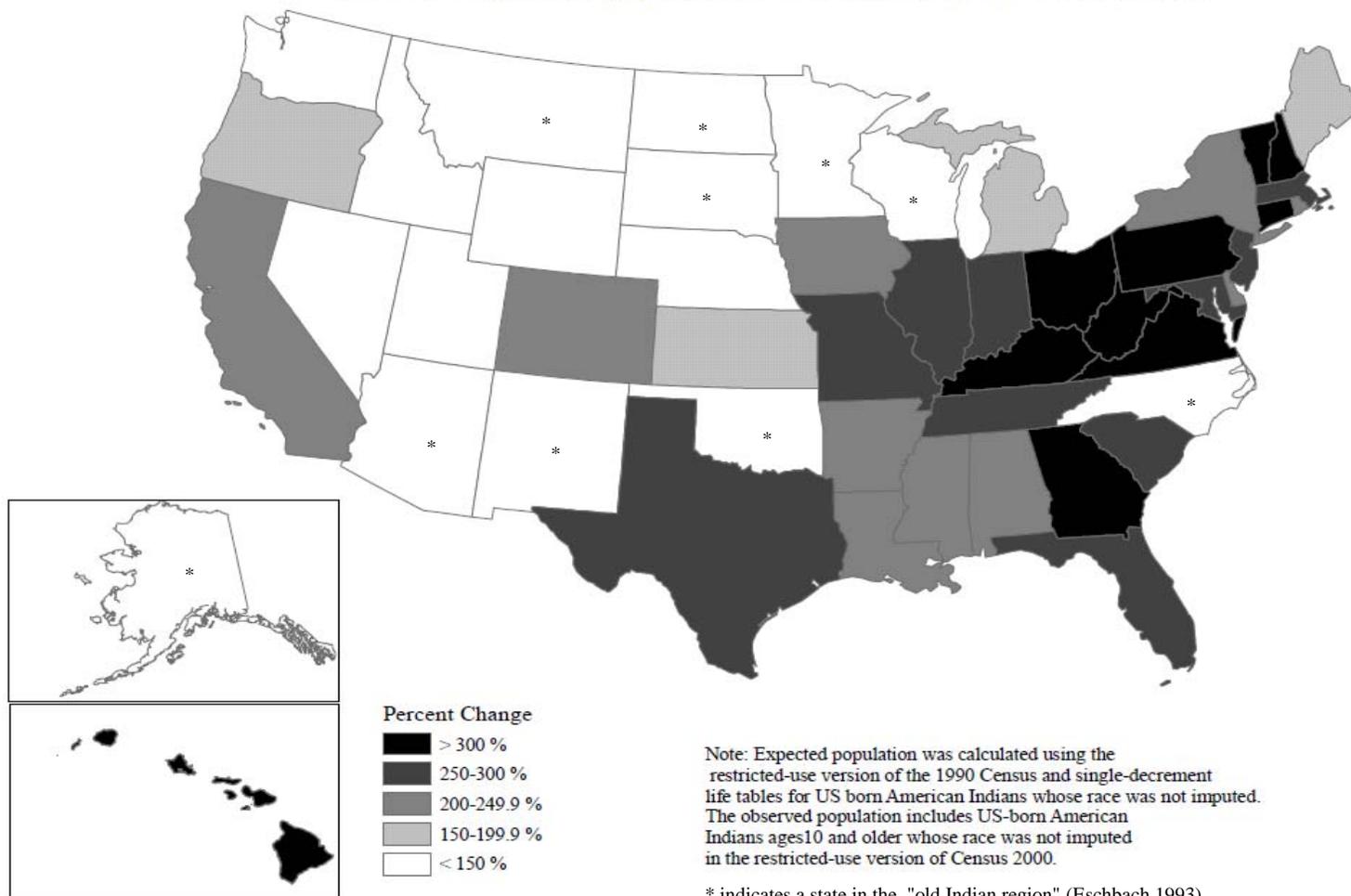


Figure 8
Percent difference between the observed number of American Indians in 2000
and the expected population size in 2000, by state of birth



Our evidence is in Tables 1 and 2, above. In column 6 of each table, we present the category-specific difference between the number of new American Indians and the number of multiple race responses. When the number is positive, it indicates that there were more new American Indians than there were multiple-race responses in that sub-population.

For example, in Table 1, we see that there were expected to be 88,050 non-Latino boys ages 10 to 14 in 2000 (column 1), but the observed number was 153,300 (column 2), of whom 58,350 were reported as multiple race (column 4). The difference between the observed and expected number of boys is 65,250 (column 5). Column 6 shows that there are 6,900 more new non-Latino American Indian boys in the data than there are multiple-race responses in this same sub-category. Thus we have evidence that approximately 6,900 boys were reported as non-American Indian in 1990 (when they were ages 0-4) and as single-race American Indian in 2000. The positive numbers in Column 6 sum into the tens of thousands,¹⁶ especially among Latino American Indians and non-Latino teens and middle-aged women. In sum, the single-race American Indian population in Census 2000 is *not* the same group of people as the American Indian population enumerated in the 1990 Census.

Discussion

The American Indian population increased remarkably between 1990 and 2000. Casual observers might attribute this increase to the change in the race question wording between 1990 and 2000, but net growth in the American Indian population has been 400,000 to 800,000 in each

¹⁶ The positive numbers in Table 1 Column 6 add to about 90,000 while the positive numbers in Table 2 column 6 add to about 56,000. This disparity is primarily due to large weights assigned to multiple race Latinos in the long form data (Table 2).

census since 1970. Our research uses detailed, non-public data to investigate the largest net increase yet – over a million new American Indians in 2000. We decompose the numerical and proportional net increase along five dimensions, and provide evidence that many people reported a non-American Indian race in 1990 and single-race American Indian in 2000.

Who are the million new American Indians? Our analyses show two patterns. First, the population increase occurred across the board. Men as well as women, adults as well as children, the highly educated and less educated, and both Latinos and non-Latinos all joined the racially American Indian population between 1990 and 2000. Generally, the points of largest numerical increase in the American Indian population were in sub-populations that were already large: teens and middle aged people, those with high school or some college education, non-Latinos, and people born in Oklahoma or populous states. The distribution of the 2000 American Indian population was fairly similar to the distribution of the 1990 population.

Second, the new population was more female and more educated. New American Indian women outnumber men by almost 85,000. Perhaps this gender imbalance is due to uneven interest in genealogical research, or perhaps women experience the American Indian race boundary in a way that is different from men. Interestingly, in the youngest group, boys were as likely as girls to become new American Indians; perhaps there is relatively little gender difference in teen identity development, coresidence with interracially married parents, and relevant youth popular culture. The education levels attained by new American Indians are not remarkable because they are consistent with the education profile of whites – probably the population from which most new American Indians are drawn. Previously identified American Indians were rather unlikely to complete high school, so their education profile could only be

matched by new American Indians if there were a tremendous draw toward American Indian identity among the least educated.

What types of people were disproportionately drawn into the American Indian population? The number of young female Latino American Indians more than doubled between 1990 and 2000, as did the number of American Indians with some college education. There was more than a 250% increase in the number of American Indians with a bachelor's degree or graduate degree. And the number of American Indians born in southeastern and Mid-Atlantic states doubled or tripled in most cases. Further research might reveal that Latinos, especially those born in Texas or California, were encouraged (formally or informally) to report American Indian race because they could not report Latino as a race. It is possible that more highly educated people were influenced to report their American Indian heritage as a race by their college experiences, knowledge of history and social life, or interest in scholarships. Further research into reasons behind all of these areas of uneven growth will improve knowledge about how race groups and boundaries are understood and constructed in the United States.

Did all of the new American Indians report multiple races? No. Among Latinos, especially, we have strong evidence that thousands of individuals reported a non-American Indian race in 1990 and reported American Indian single race in 2000. Single race responses were also relatively common among new non-Latino American Indians with at least a college degree. Researchers who make cross-time comparisons between the 1990 American Indian population and the single-race American Indians in 2000 are not observing the same individuals in the two years.

Conclusion

This research has important implications for studies of race boundaries and socioeconomic inequality. Uneven increases in some groups (e.g., women, Latinos, and more educated people) point to these groups as fertile locations for future research on the shifting and/or blurring of the American Indian race boundary. To the extent that this boundary is changing over time in irregular ways, statistics on education, poverty, intermarriage, and health status for American Indians will also show uneven patterns of change.

Importantly, these results give information about *net* changes in race responses, rather than gross changes. The large net increase in the number of American Indians could be masking substantial churning in racial identification. We cannot know from these data whether 0 or 50,000 or 500,000 people changed their race response *away from* American Indian in this decade. The history of American Indian assimilation (Thornton 1987) and evidence from Latinos (Duncan and Trejo 2011) imply that this number is larger than zero.

Speculation abounds about the meaning of these race response changes for the individuals involved. One group of researchers, including Anderson and Silver (1983:482), claim that “change in ethnic self-labels is generally not made lightly and that it typically implies a serious change in ethnic attachments.” In this scenario, the boundary changes have real implications for the redistribution of resources through organized race projects (Omi and Winant 1994) and ethnic mobilization (Nagel 1994; Quinn 1990). New American Indians would become similar to previously identified American Indians in terms of life experience and policy needs. Low levels of churning would point to this interpretation. Future research using qualitative or longitudinal data could provide evidence.

Another group of scholars sees this change in race response as less personally meaningful and thus as less likely to affect the future actions of individuals. In this scenario, the new

American Indians will not adopt the segregation, education, marriage, and health patterns of previously identified American Indians. Instead, as Eschbach (1995:103) suggests: “Some people with a very low degree of Indian descent may continue to identify as Indians as long as the symbol is available and socially meaningful Ethnic identification for most will be ‘costless’ and voluntary.” A high level of churning in racial identification would lend support to this understanding of new American Indians.

Regardless of the meanings of the changes, the changes themselves fundamentally affect how these data can be used. Analysts using race-specific data must keep in mind that races are socially constructed, not a fixed biological feature of an individual. Conceptualization, measurement, and modeling strategies must take this into account. An assumption that race is permanent ignores theory, research, and reality.

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