Back in the Box:

The Dilemma of Using Multiple-Race Data for Single-Race Laws

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Abstract

In March 2000, the Office of Management and Budget (OMB) announced that mixed-race people who mark both "White" and a nonwhite race will be counted as members of the nonwhite group for purposes of civil rights monitoring and enforcement. Although the rule is easy to understand and to implement, it is also controversial. In effect, the OMB allocation procedure is a modern application to all minority groups of the historical "one-drop rule" under which a person with any black ancestry was considered legally black. In this paper, we discuss some of the challenges that OMB's allocation procedure may face in civil and voting rights cases. We then use results from the 1990 U.S. census and from the 1998 census dress rehearsal to estimate how many people will be subject to racial reallocation and how this could change the aggregate socioeconomic characteristics of racial groups.

We find that while multiple-race responses make up only a small fraction (about 3.7 percent) of the national population, reallocation could influence the racial classification of up to 10 percent of some state populations. Local level variation means that in some small areas the proportions of multiple-race respondents subject to reallocation will be even higher. In general, multiple-race respondents tend to have socioeconomic characteristics in between those of white and nonwhite groups. Allocation of mixed white-nonwhite individuals to the minority group tends to raise the socioeconomic profiles of the black and American Indian population, but to lower the socioeconomic profile of Asian Americans.

The allocation rule, while protecting the overall minority count, will reassign a substantial number of people who have traditionally identified with the white population. This extension of protection may prove controversial and pose an additional challenge to civil rights, voting rights and other race-based policies, which already face heavy criticism.

I. Introduction

In 1997, the Office of Management and Budget (OMB) issued revised standards for racial and ethnic statistics that allowed respondents for the first time to mark multiple races on federal forms including the census. At that time, it was not known how multiple-race data would be processed, tabulated, or used. Just weeks before the 2000 census, however, OMB issued guidelines for the use of multiple-race data. For civil and voting rights purposes, OMB decided that people who marked "White" and a nonwhite race should be counted as members of the nonwhite group (Office of Management and Budget 2000).

The OMB guidelines, known as Bulletin 00-02, are limited in scope to "data on race for use in civil rights monitoring and enforcement" and do not, for example, apply directly to the reporting of the many social, economic, and demographic indicators involving racial statistics. Nor are they meant to preclude the development of alternative allocation methods for preserving the continuity of time series data collected under the old and new systems (i.e. "bridging" methods). Still, they are the first explicit guidelines covering the use of multiple-race data, and as such have set a precedent for the systematic reallocation of multiple responses back to single-race categories.[1]

The need for allocation rules results from the disconnect between statistical policy governing the collection of racial data and the laws and precedents for using racial data. The implementation of current civil rights laws calls for single-race categories that unequivocally distinguish between those who are members of minority groups and those who are not. The guidelines provide a way to do this: first, by specifying that any person who marks both "White" and a nonwhite race will be allocated to the nonwhite race; and second, by specifying that allocation of multiple nonwhite responses will depend on the circumstances of the complaint at issue.

OMB's Bulletin 00-02 has the advantage of being easy to understand and relatively easy to implement. Most importantly, it does not reduce the overall size of the minority population. OMB also points out that it avoids dividing whole people into fractions, a procedure open to criticism because of the history of voting rights in the pre-civil war constitution where slaves were given only 3/5ths of the weight of free whites.

However, despite the practical merits of this strategy, the allocation to nonwhite groups may nonetheless prove controversial for both the mixed-race community and the general population. First, the OMB approach re-implements, albeit in a civil rights context, the traditional American "one-drop rule" associated with slavery, segregation, and the history of racial discrimination. In the past, the one-drop rule was used to classify a person with any degree of black ancestry as black and thus to enforce a rigid color line between blacks and whites (Davis 1991). The use of a modern one-drop rule clearly has a different purpose than in the past; it is aimed at redressing discrimination rather than enforcing segregation. But despite its intentions, the rule is still open to the criticism that it repeats the mistakes of the past, further institutionalizing the divide between the white and non-white populations.

A second difficulty in the reallocation plan is that it appears to violate the principle of self-identification. Now that multiple-race individuals are finally permitted to "mark one or more" race(s), many expect to be treated as such without being put back in a single checkbox. Even government reports acknowledge that "congruence with respondent's choice" is an important feature of any tabulation system. As the Tabulation Working Group (1999) wrote, "… the underlying logic of the tabulation procedures *must reflect to the greatest extent possible the full detail of race reporting*" (our italics, p. 13).

A third challenge for the guidance is the risk of making race-based public policies even more controversial than they already are. The system of racial classification may come to be seen

as being too unwieldy and arbitrary to support civil rights legal decisions. There is probably no escape from this problem. Any reallocation procedure is uncertain and ultimately arbitrary, since there is no way to know what single race multiple-race respondents would most strongly identify with, if given the opportunity.

A final challenge that OMB's reallocation may face is that it errs on the side of extending the coverage of race-based policies, which are already under political attack, to a segment of the population—namely, mixed-race individuals with some white ancestry–who may not have qualified for such protection in the past. Some 60 to 80 percent of those likely to mark more than one race choose "White" when asked to mark only a single race (Goldstein and Morning 2000). Xie and Goyette's (1997) finding that biracial white-Asian children were nearly equally likely to be reported (presumably by their parents) as "White" or "Asian" on the 1990 census may suggest whites' acceptance of biracial white-Asian people to a considerable degree, rather than stigmatization as a minority group. Gans (1999) and Lind (1998) further suggest that mixed-race Americans with white ancestry are so well-integrated in the white community that in time they too will come to be considered white.

In this paper our goal is to provide a preliminary assessment of the OMB reallocation guidelines contained in Bulletin 00-02. We explore the potential impact of the OMB rules on both the counts and socioeconomic profiles of the racial groups enumerated. Because the actual 2000 census results were released too late for inclusion in this paper, we have relied on estimates of the multiple-race population from the 1990 census (Goldstein and Morning 2000). Estimates from the 1990 census are slightly out-of-date, and are based on inferences from the combined responses to the race and ancestry questions, but still provide a sense of the size, geography, and socioeconomic characteristics of multiple-race respondents. An advantage of working with the 1990 data is that it allows us to see which single-race category was chosen by respondents with multiple racial

ancestry, thus permitting us to observe whether the OMB allocation rules correspond to what people would have chosen themselves. We also discuss selected results from the 1998 census dress rehearsal to show how multiple-race respondents might be geographically concentrated.

We begin our inquiry in Section II by providing the details of the OMB guidance. In Section III, we review the use of racial statistics in civil rights and voting rights protection, and explore hypothetical scenarios in which the statistical treatment of multiple-race responses might make a difference. In Section IV we present estimates of the effects of allocating according to the OMB guidelines using 1990 census data and 1998 dress rehearsal data. Finally, we conclude the paper with a review of our results and a discussion of their implications.

II. The Guidelines

The federal government's 1997 introduction of the multiple-race format raised the question of how multiple-race statistics would be tabulated and used to monitor and enforce civil rights laws that had previously depended on a single-race classification system. In the past, classification systems had been formalized in response to legislation (Edmonston, Goldstein and Lott 1996), but this time the enforcement and monitoring of laws had to respond to a change in the statistical system. The approach taken by OMB was to develop a procedure for reallocating multiple-race respondents back to single-race categories.

The OMB guidelines read in part as follows:

"Federal agencies will use the following rules to allocate multiple race responses for use in civil rights monitoring and enforcement.

- Responses in the five single race categories are not allocated.
- Responses that combine one minority race and white are allocated to the minority race.

- Responses that include two or more minority races are allocated as follows:

  -- If the enforcement action is in response to a complaint, allocate to the race that the complainant alleges the discrimination was based on.

  -- If the enforcement action requires assessing disparate impact or discriminatory patterns, analyze the patterns based on alternative allocations to each of the minority groups."

A precedent for the treatment of multiple identification can be found in the combined treatment of race and Hispanic origin statistics. The most common joint treatment of race and origin statistics has been to give Hispanic origin priority over race. Five categories emerge from this approach: "White, non-Hispanic," "Black, non-Hispanic," "American Indian, non-Hispanic," "Asian, non-Hispanic," and "Hispanic."[2] This system, in which Hispanic origin trumped all other racial categories, is analogous to the allocation rules where any "minority" racial identity trumps white identity. Both procedures have a similar aim, namely to protect those who have historically experienced discrimination.

This decision to allocate in favor of nonwhite populations was greeted with relief by representatives of traditional minority groups, who had been concerned that they might lose numbers due to the "one or more" format (Holmes 2000). On the other hand, it was harshly criticized by some in the multiracial community as a return to the "one-drop rule" (e.g. Byrd 2000).

III. What's at Stake? The Uses of Racial Statistics in Civil Rights and Voting Rights Act Enforcement

How people are counted--i.e. in which racial category--does not involve the same issues as whether people are counted at all. With the census undercount, the area in which a "missed"

person lives is credited with one less person, and the congressional representation, federal funds, and other benefits that would have gone to that person go elsewhere. But if a person is allocated to one race instead of another, a state's congressional apportionment is not affected. Similarly, population-based funding will not in general be affected by the racial counts. What *is* at stake in racial reallocation is:

(1) the nominal size of groups, of interest to organizations that claim to represent them;

(2) the feelings–and perceived right to self-identification–of multiple-race respondents;

(3) enforcement of the Voting Rights Act; and

(4) enforcement of civil rights legislation, notably anti-discrimination laws in employment, housing and education.

In this section, we focus on the effect of the allocation rule on the use of racial statistics in redistricting and civil rights. However, the first two issues should not be taken lightly. The possibility that some, or even many, multiple-race respondents may feel betrayed is a real one. As Susan Graham of Project RACE and James A. Landrith, Jr. of The Multiracial Activist have written, "The federal government is going to decide what single race you or your children would pick if you had to pick just one. They not only want people to make a choice of one race, they want to make the choice for us."

Racial statistics are used for the monitoring and enforcement of both civil rights laws and the Voting Rights Act (Edmonston and Schultze 1995). In civil rights cases, a statistical demonstration of disparate impact is a first step toward proving a discrimination case. Yet statistics are not everything, for depending on the law, the intent to discriminate must also be shown. In contrast, statistical evidence is sufficient for the Department of Justice to find a redistricting plan in violation of the Voting Rights Act, even without evidence of discriminatory intent. Below we

provide a brief overview of the legal use of racial statistics and identify some challenges that multiple-race data and allocation decisions may pose.

A. Voting Rights

The Voting Rights Act of 1965, as amended, requires that states and political subdivisions demonstrate that their redistricting plans do not reduce the voting strength of minority citizens. Plans that split minority voters into multiple districts, for example, can be held to violate the voting rights of minorities by diluting their vote. In the 1970s and 1980s, the courts developed numerical standards to judge whether minority groups were given a fair chance of electing a candidate from their districts. One such rule was the so-called "65-percent rule," according to which a minority concentration of 65 percent was necessary to ensure representation for minority groups. However, in 1993 the Supreme Court decided in *Shaw v. Reno* that race could not be "the predominant factor" in the drawing of districts (Persily 2001). The definition of how to determine whether race is "the predominant factor" remains controversial and unresolved.

The effect of this ruling and others is that redistricting plans are subject to competing, and potentially contradictory, criteria. On the one hand, the voting rights statutes forbid the dilution of minority voting power, and statistics on racial composition are employed in judging compliance with the Voting Rights Act. On the other hand, the Supreme Court's recent rulings appear to forbid the drawing of district lines on the basis of race alone. Thus race must be taken into consideration to assure the protection of voting rights, but not so much into consideration that the redistricting plan is rejected in court.

If numerical thresholds are used, even a slight reallocation of multiracial responses could alter minority counts enough to make a difference in the approval of a redistricting plan. In a hypothetical district where 60 percent of the voting-age population marked "Black" as their only race and in which an additional 10 percent marked "Black" as one of their races, the method used

for allocating the multiple-race respondents would determine whether or not the district was in compliance with the 65-percent rule. Moreover, the racial reallocation method used would likely be hotly contested.

Although the 65-percent rule will probably no longer be applied following the Supreme Court's ruling in Shaw, other numerical criteria may persist. For example, according to the so-called "Gingles criteria" (Persily 2001) a minority group filing a complaint of vote dilution must show that it is large enough to form a numerical majority in a re-drawn district.

With numerical thresholds apparently having fallen out of favor with the courts, the allocation of multiple-race responses is likely to be less controversial than in the hypothetical scenario presented here. However, the vast number of voting districts to be redrawn following the 2000 census suggests that even if allocation methods for the multiple-race population matter very rarely, at least a few contentious cases may still surface.

B. Civil Rights

Federal civil rights law prohibits discrimination in employment, housing, and education based on race and color (as well as sex, religion, and national origin). In employment cases, statistical comparisons of a firm's employees with the local labor force are used as the first piece of evidence that an employer may be discriminating against a particular group. Although there is no commonly accepted numerical threshold for determining if there is evidence of discrimination, statistical tests of significance are typically performed in order to determine whether the composition of the labor force of a firm and of a local area differ. Statistics are not usually used alone, as in the voting rights cases, but rather are just one piece of evidence used in such cases. Thus small, and perhaps even relatively large, changes in population composition will probably not be sufficient to change the determination of cases.

The current guidelines leave unresolved several potentially contentious issues. One example is how program eligibility will be determined: will someone who marks "White" and a minority race on a form will be eligible for the same programs as someone who marks a minority group alone? Such targeted programs include the Small Business Administration's 8-A loans for minority businesses, government contracting programs that reserve a portion of government contracts for minority businesses, and affirmative action programs in hiring. It is hard to imagine that a court case will not arise in which the eligibility of a mixed-race person will be challenged, particularly if it can be shown that that person had in the past identified only as white. In the present climate in which race-targeted programs are under political attack (e.g. Proposition 209 in California), the potential for controversy is great.

A second unresolved issue concerns what will happen in cases where the method of allocation applied to multiple nonwhite responses (e.g. "Black" and "American Indian") ends up making a substantial difference. As noted earlier, the OMB allocation guidelines allow data users some discretion in this area. Although the amount of such allocation is likely to be small in proportional terms, as we will show below (at least in the short run), it is not at all clear that the current guidelines can withstand application if they actually make a substantive difference in a particular civil rights case.

Finally, the OMB allocation procedure effectively obscures potential differences in the treatment of mixed-race people and single-race people, because they are both lumped together. Employers or landlords might well discriminate against (or in favor of) people with mixed backgrounds relative to those with single-race backgrounds, but it will not be possible to determine if such a pattern exists if only allocated racial data is available.

IV. Estimates of Reallocation

We begin by providing national estimates of the multiple-race population and the effects that its statistical reallocation would have on the counts of single-race groups. The national estimates provide an indication of what will happen "on average" in small local areas, where civil and voting rights cases are decided. This average, however, hides the great variability in multiple-race reporting that is expected at the local level. To provide a sense of this variability we then present estimates by state, and, finally, estimates from the dress rehearsal census conducted in 1998 in Sacramento, California.

The racial composition of the nation overall, although not usually of importance in specific civil and voting rights cases, does provide a sense of the magnitude of the multiracial population that may prove symbolically important. Moreover, the total sizes of minority groups that result after multiple-race individuals have been added could be used by minority political organizations interested in the nominal size of the groups they claim to represent.

Since the detailed results of the 2000 census are not available at the time of this writing, we employ our 1990 census-based estimates of the multiracial population to gauge the impact that OMB's reallocation directive could have on the nation's racial breakdown (Goldstein and Morning 2000). We derived these figures by comparing respondents' choice of race to their choice(s) of ancestry, identifying as multiracial those whose ancestry appeared to indicate a race different from the one they marked on the race question.[3] This method led us to estimate that 3.7 percent of the total U.S. population was of mixed race.

There are advantages and disadvantages to this approach. One drawback is that by using data that is a decade old, we may tend to undercount the multiple-race population, particularly given the rapid rate of growth in racially mixed marriages and mixed-race births. A second disadvantage is that our method over-estimates the number of multiple race responses involving

American Indians, particularly the White-American Indian combination, because it assumes that everyone who wrote-in an American Indian ancestry would choose to mark American Indian as one of their races. On the other hand, the 1990 census data offers one particular advantage over the 2000 census: in the older data we are able to see which single-race category multiple-race respondents chose when they were given the option of choosing only one race. An additional advantage of using the 1990 data is that it allows us to get a preview of socio-economic data not yet released from the 2000 census.

A. Allocation at the National Level

Using the 1990 census data, we can infer what impact the OMB reallocation of multiracial responses would have had, had multiple-race reporting been an option. Table 1 shows: (a) the single-race composition of the U.S. population as tabulated by the 1990 census; (b) our estimates of the same population according to single- and multiple-race categories; and c) the effect of reallocating multiple-race respondents back to single-race categories using OMB's new guidelines.[4] Note that in the last column, we group all double-minority responses in a "To Be Determined" row, since Bulletin 00-02 does not offer a single fixed rule for allocating these responses.

Table 1 indicates that allocation by the OMB rules reduces the total number of whites by 3.7 percent, but it increases the count of American Indians more than threefold and that of Asians/Pacific Islanders by about 6 percent. The number of blacks drops somewhat because the 1990 census "Black" count included some dual-minority black-Indian and black-Asian people who shift to the "To Be Determined" category of our allocated classification. The "Other" race category remains essentially the same.[5] This category is not typically included in federal statistics other than the census, but may figure prominently in the tabulation of 2000 census data because it is likely to

form a component of many multiple-race responses, as results from the Census Bureau's 1999 American Community Survey suggest (del Pinal et al 2000).

TABLE 1 HERE

If we consider the scenarios in which each nonwhite racial group in turn has all possible dual-minority responses allocated to it, we find the following changes in group sizes, as compared to the single-race estimates. The American Indian/Alaska Native category would grow by 345 percent if all responses combining Indian with black or Asian responses were added; the Asian/Pacific Islander group would grow by nearly 10 percent if all multiple-race responses involving "Asian/Pacific Islander" were allocated to it; and finally, the count of blacks would increase slightly by 1.3 percent under the OMB rules if the responses combining black with Asian or American Indian were added to it.

Most of the impact of racial reallocation that is shown in Table 1 can be attributed to the reclassification of people who reported both white and American Indian ancestry. As shown in Figure 1, some 6.9 million people fell into this category, or 2.8 percent of the entire U.S. population and three-quarters of the entire multiracial subpopulation. Since the vast majority—95 percent—of them described their race as "White" on the 1990 census, their reallocation to the "American Indian" category in accordance with the new OMB rules constitutes a significant classification shift. The second largest combination is the "White" and "Asian/Pacific Islander" group, which includes 850,000 people because they marked either "White" on the race question and wrote in an Asian ancestry or vice-versa. As in the white/American Indian case, most of these mixed-race respondents described themselves as "White" on the race question; 73 percent identified as white and 27 percent as Asian.

In general, the multiple-race responses identified here tended to come from people who identified as "White" on the race question; they constitute over 80 percent of the multiracial

population as we enumerate it (see Figure 1). The exception to this pattern is among people who were both "White" and "Black." In this group, the number of "Black"-race respondents who listed white ancestry (427,000) was greater than the number of "White"-race respondents who listed black ancestry (296,000). The overall pattern of mixed-race respondents with some black ancestry -- in all three black/white, black/Indian, and black/Asian groups – was that respondents were more likely to identify as "Black" as their single race than with the other race they reported.

FIGURE 1 HERE

These results suggest that the first OMB allocation rule, which covers multiple-race responses that include "White," will apply to most mixed-race respondents at the national level, but that its "one-drop" approach runs against the identification patterns of most of them. Of the approximately 8.5 million people we identify as multiracial with some white ancestry, 7.5 million described their race as "White" on the 1990 census—yet the OMB's guidelines would allocate all of them to nonwhite racial categories. Even among those reporting white and black ancestry—the group most likely to choose a nonwhite race for themselves—over 40 percent identified as "White."

Our analysis so far provides two measures with which to gauge the potential impact of OMB's racial reallocation rules. One approach is simply to compare the single-race counts from the 1990 census to those that would have been estimated had multiracial responses been allocated according to the OMB instructions. The second is to compare the racial identifications selected by those mixed-race respondents to those that would be imposed by reallocation. While the change captured by the first measure may seem insignificant, the second measure suggests a stronger impact as it appears that the allocation rules will most often be inconsistent with the single-race choices historically made by those with mixed ancestry. Even though the allocation involves only a small fraction of the total U.S. population, this small fraction still amounts to millions of people.

B. Allocation at the State Level

While racial group proportions at the national level are noteworthy and likely to be cited in the media and policy discussions, the monitoring and enforcement of civil and voting rights will depend on racial breakdowns at much lower levels of geography. The areas involved in redistricting, for example, range in size from school board districts of several thousand to congressional districts of several hundred thousand. Moreover, residential segregation can be extremely concentrated at the local level. Although we do not present estimates here for smaller areas, below we attempt to suggest how regional variability in the proportions of multiracial individuals is masked by national-level results, and thus how the reallocation of multiple-race responses might affect racial counts at the state level.

1. All States. Figure 2 presents the estimated multiracial share of each state's population in 1990, which ranges from a minimum of about 1 percent to a maximum of more than 10 percent. According to our calculations (not shown), multiracial Americans reside in greatest absolute number in the states of California, Texas, Florida, Ohio, and New York. However, they attain their highest share of the population in the states of Oklahoma (which has one of the largest concentrations of American Indians in the country), neighboring Arkansas, Hawaii, and Alaska.

FIGURE 2 HERE

As we observed at the national level, in most states the greatest effect of the OMB allocation rules will be to shift people from the "White" category to the "American Indian" one. This re-balancing is particularly striking in the case of Arkansas, whose American Indian population makes up less than one percent of the total according to 1990 census results, but expands to nearly 10 percent of the total when the OMB allocation guidelines are applied.

2. Focus on Selected States. Next we take a closer look at shifting racial compositions in the states of California, Hawaii, and Oklahoma, as well as the District of Columbia (see Table 2). We focus on these areas either because they had large shares of multiracial residents (8.06 percent and 10.78 percent of the total populations of Hawaii and Oklahoma, respectively), or because their multiracial populations prominently featured "new" combinations other than the longstanding white-American Indian combination. The black and white combination is common in Washington, D.C., compared to other states, while in California, multiple-race respondents come from a variety of backgrounds.

TABLE 2 HERE

Of the four, Hawaii exhibits the greatest drop in the white population due to the implementation of the OMB guidance. Its white population decreases by nearly 13 percent, while Oklahoma's declines by almost 11 percent. California's white population shrinks but by less than four percent, and the District of Columbia's is virtually untouched. The shrinkage in Hawaii's white population is due primarily to the reassignment under the OMB guidance of white-Asian individuals (3.3 percent of the state's population) to the "Asian/Pacific Islander" category. In contrast, Oklahoma's decrease in whites stems from its large white-Indian population (7.8 percent of that state's total), which is reallocated to the "American Indian" category under the OMB guidelines. Accordingly, the estimate of Oklahoma's American Indian population increases from 8.5 percent to 16.2 percent of the state total when the classification standards are changed from the 1990 census system to the new OMB rules.

Of the four areas considered here, estimates of the District of Columbia's white population are the least affected by implementation of the OMB guidance for two reasons. One, it has the smallest multiracial presence (only 2.04 percent of its total population). Second, its multiracial

community has the largest share of double-minority combinations, which do not affect the white population total under the OMB rules. If all the double combinations that included black ancestry were aggregated with the black single-race group, the black population would grow slightly, from 66.31 percent of the D.C. population under the 1990 census classification to 66.6 under an OMB count. If, on the other hand, double-minority black-ancestry combinations were assigned to the American Indian and Asian categories instead of the black category, the black population would drop from its 1990 census count to 65.76. In the District of Columbia (as in California and Hawaii), the black community loses more if it is detached from its black-American Indian component than it gains by adding the white-black permutation.

California differs from the preceding areas in that its racial breakdown varies significantly between the two classification systems (unlike the District of Columbia's), but this change is not due overwhelmingly to a single multiracial group (like Hawaii's white-Asian and Oklahoma's white-Indian groups). Instead, the decrease in California's white population is spread more evenly between the reallocation of white-black respondents (4 percent of the transfer), white-Asian respondents (21 percent), and white-American Indian respondents (74 percent).

C. Allocation at the Local Level

The 1998 census dress rehearsal provides an early opportunity to assess the effect of multiple-race reporting on small area estimates.[6] The dress rehearsal covered all of the housing units in three areas: Sacramento, CA; Columbia, SC; and Menominee, WI. In Sacramento, the proportion reporting more than one race was 5.4 percent, while in Columbia it was 0.8 percent and in Menominee it was 1.2 percent. These areas were not chosen to be representative of the nation, and so we cannot say from the dress rehearsal whether most districts will be more like Menominee or more like Sacramento. However, Sacramento provides us with an example—and probably not

the most extreme one—of substantial multiple-race reporting and is thus worthy of additional attention.

Sacramento has a diverse population on several counts (see Table 3). First, it is majority-minority, with whites comprising only 48.4 percent of the population according to the dress rehearsal count. Second, it features a large share of multiracial residents, regardless of whether multiple-race responses including "Some other race" are counted. If we include those multiple-race responses including "Some other race," then 21,965 of the 403,312 people enumerated, or some 5.4 percent, can be considered multiracial, but even if we remove all of the dual-race responses that included "Some other race," the multiracial share remains substantial at 3.9 percent. This is roughly in line with our national estimate, but in contrast to the nation, the multiple-race population of Sacramento is not dominated by people reporting white and American Indian race. Instead, considerable diversity is found even within Sacramento's mixed-race community, as it appears about evenly split between the combinations white-American Indian, white-black, and white-Asian. Interestingly, the American Indian-Native Hawaiian and Pacific Islander group is substantial, even larger than the black-American Indian group.

TABLE 3 HERE

In order to illustrate the effects of racial reallocation under OMB's new guidance, Table 3 shows both the published dress rehearsal tabulation of the racial composition of Sacramento, and several columns demonstrating the effect of allocating multiple-race responses back to single-race categories under different scenarios. The column marked "Black," for example, shows the result of allocating all of the two-race combinations that included "Black" to the "Black" single-race row. This would be the allocated result if, say, a complaint were made of discrimination against blacks. (The actual number of people allocated to the black category would be slightly higher because some fraction of those who report three or more races would also be allocated as "Black." We

could not allocate responses of three or more races because they were not described in sufficient detail in the data available, and instead include them in the row labeled "To be decided." We also add to that row the dual-minority responses not including "Black"—in this example—because we make no assumption about the priority assigned to them.) The columns marked "American Indian," "Asian," and "Native Hawaiian and Pacific Islander" are allocated with priority given to the respective race in the same manner that the columns labeled "Black" gave priority to blacks.[7]

As we observed at the national level, the reallocation of multiple-race responses in Sacramento affects only a small proportion of the total population, but has a large effect on the size of the smaller racial groups. For example, allocation of multiple-race responses with priority to the Native Hawaiian and Pacific Islander category more than doubles the size of the population in that category. Similarly, but less dramatically, the number of blacks increases by 8.6 percent (from 6,382 to 6,930), the number of Asians increases by 9.5 percent, and the number of American Indians increases by 50.5 percent.

The tabulations in Table 3 indicate how much of a difference it makes to give allocation priority to different nonwhite groups. All of the allocated figures incorporate the allocation of all white-nonwhite responses to nonwhite categories, in line with the first allocation rule in OMB's guidance. By comparing the allocated total of a minority race when it is not given priority to the

We can also use the data in Table 3 to assess how much each allocation rule—either the first governing white-nonwhite combinations and the second concerning nonwhite-nonwhite ones—contributes to each category's size. In this respect, we find a consistent pattern across the groups in the Sacramento population in that each rule appears to contribute roughly equally to the total allocation. For example, of the 548 people reallocated to the black single-race category, 279 were people who marked "Black" and "White" on their forms (and thus allocated under the first rule), and 269 were people who marked either "Black" and "American Indian," "Black" and "Asian," "Black" and "Native Hawaiian," or "Black" and "Some other race" (therefore allocated under the second rule). Allocation to a nonwhite group is almost as common from other nonwhite groups as it is from the white population.

V. Socioeconomic Characteristics of the Allocated Population

The impact of the new OMB guidance on racial data will be felt not just in terms of the relative sizes of racial groups, but also in terms of the characteristics—socioeconomic, demographic, and other—that these newly-constructed racial groupings will exhibit. Such statistical profiles may influence the analysis of data for the purpose of detecting discriminatory patterns. For example, in an employment discrimination case, comparisons may focus on the population with a particular level of educational attainment. They may also influence how researchers understand trends over time in the social status of minorities in the United States, if the "bridging" technique selected resembles the OMB allocation guidelines.

We explore how shifts in classification affect racial groups' mean outcomes on four basic socioeconomic characteristics: family income, home value (a proxy for wealth), Duncan's socioeconomic index (an occupation-based prestige scale), and educational level. Returning to our 1990 census data, we use only the adults 18 years of age and older in the sample (N = 1,838,508),

to control somewhat for differing age structures across racial groups. Results for the national population are shown in Table 4.

TABLE 4 HERE

At the national level, we see that racial reallocation tends to raise the socioeconomic profile of both the white and American Indian populations. The Asian population is affected slightly, with a slight decline in its socioeconomic profile, and the characteristics of the black population remain nearly unchanged. It is important to note, however, that our analysis here does not include the potential effects of reallocating the double-minority population, which we leave instead in the "To be determined" row.

The direction of these effects can best be understood in terms of the population that is being shifted during allocation. Those with American Indian *and* white ancestry tend to have characteristics in between the two groups, and thus allocation from the white category to the American Indian one raises the socioeconomic levels of both groups. A similar type of selection—but in the reverse direction—is lowering slightly the characteristics of the Asian population.

Table 5 reports the mean values of our four socioeconomic indicators for a subset of the multiple-race groups we identify in the 1990 census.[8] The rows marked "ordered permutation" distinguish between those who marked "White" on the race question and reported some nonwhite ancestry (e.g., "White-Black") from those who reported a nonwhite race but white ancestry (e.g., "Black-White"). We see that the "White-Black" category has higher socioeconomic characteristics than the "Black-White" category. A similar pattern holds for the American Indian and white permutations. For people of mixed Asian and white background, the reverse pattern holds, with the "Asian-White" group having higher average socioeconomic characteristics than the "White-Asian" one. The section of the table marked "aggregated into combinations" shows the effect of

combining multiple responses without regard to order of identification. This is essentially what the "mark one or more" format in the 2000 census does.

TABLE 5 HERE

We can also use Table 5 in order to assess whether the allocation guidelines put people in the socioeconomic group they most resemble. This appears to be the case for those with mixed "Black" and "White" or "American Indian" and "White" backgrounds. For example, the average family income of people with mixed black and white backgrounds is $31,000, which is closer to the mean income of single-race blacks ($28,800) than it is to single-race whites ($42,300). On the other hand, for those with Asian and white backgrounds, allocation to the "Asian" group actually puts them in a category with people with whom they differ more on average in their socioeconomic characteristics than they would if they were placed in the "White" group. Such differences suggest that the "one-drop" minority allocation rule is less appropriate for those of mixed Asian and white background than it is for those of mixed black and white and mixed American Indian and white background.

Finally we note that although the effects of allocation on the socioeconomic characteristics of racial categories tend to be small at the national level, this does not mean they will be uniformly small at all levels of geography. There may be cases in some localities where the socioeconomic composition of a racial category could change substantially as a result of allocation decisions.

VI. Concluding Discussion

The Office of Management and Budget's proposed allocation method is easy to understand and to implement. Our message here is not that OMB made a mistake in its guidelines. Rather we have tried to point out some of the issues that the allocation method may raise and some of the difficulties it may encounter.

The fundamental challenge of using multiple race data is that perhaps the first time, the law and the courts will be playing catch-up to the data, rather than the other way around. The use of racial statistics in past decades has been guided by legislation. The separation of the Hispanic origin and race question, for example, was been in response to legal and administrative requirements (Edmonston et al. 1996). This time, however, the change to multiple-race reporting was made in order to adapt to the changing demography of the United States and to accommodate the mixed-race respondents who expressed intense dissatisfaction with single-race reporting. Reallocation of multiple race respondents then becomes a way of bringing the data back into line with pre-existing legal requirements.

Any allocation system is controversial because it involves altering the designations that people chose for themselves. What makes such a system even more controversial is that there exist simultaneously many conceivable alternative allocation schemes. Thus not only are responses being changed from what people originally intended, but also the changes are being made in an arbitrary, if systematic, manner. Arbitrariness is not a characteristic of the OMB allocation scheme in particular, but rather is a feature of any single set of rules.

The one-drop aspect of the OMB allocation rule is aimed at preserving the rights and size of minority populations. In doing so, the effect is to overshoot somewhat and to include in minority groups some people who formerly identified as white. Thus, there would be some degree of "false positive" allocation of individuals to minority groups, similar to the allocation of people who do not belong to distinct official racial groups to the "multiracial" category that has been tested in the past (McKay 1996).

A potential technical difficulty with the allocation rules is that they can be impossible to fully implement without full reporting of the 63 categories. It is not possible to allocate only from the aggregated categories, which include only the most common dual-race categories and other

groups that number more than 1 percent of the total population, because the remaining categories consisting of smaller dual-race combinations and combinations also need to be allocated. In the Sacramento case, for example, the remaining categories make up only small portions of the total population but a large fraction of some of the smaller groups.

Although the scope of the allocation and aggregation rules are explicitly limited to "civil rights," in the absence of alternative rules they may well end up being applied elsewhere. For example, the original guidelines did not specifically apply to voting rights but have since been extended. We believe a particularly sensitive area will appear in terms of program eligibility, which the guidelines clearly are not meant to cover -- in fact the old racial classification standard (Directive 15) explicitly excluded eligibility -- but for which they will nonetheless serve as a precedent.

How large will the effect of allocation be? Our tabulations are illustrative and do not include tabulations of small areas, where most civil and voting rights cases are decided. However, even at the state level we see a potentially large number of multiple-race responses. The racial composition of small geographic areas can be very different from the nation as a whole. The national proportion of multiple-race respondents is like an average of the small area estimates, but does not include any variation. As we have seen, while about 3.7 percent of the country is expected to mark multiple races, state levels varied from a low of about 1 percent to a high of more than 10 percent. Similarly, the Dress Rehearsal results, although not chosen as a representative sample of small areas, also showed tremendous variability, with multiple-race responses totaling 1 percent or less in two of the three sites, but reaching 5.4 percent in Sacramento. The Sacramento site surely is not the most extreme. We should expect multiple-race reporting in small areas to be at least as high as the most multiracial states, or at least in the 8 to 10 percent range.

In terms of the Voting Rights Act, the climate against numerical quotas probably means that numerical thresholds will play a less important role in redistricting litigation and enforcement following the 2000 census than they did following the 1990 census, when the "65- percent rule" was fairly firmly in place. Still, it will only take a few extreme cases where the allocation rule for deciding how to count multiple-race responses ends up really making a difference for this issue to end up in the courts. This does not mean that the whole system of Voting Rights Act enforcement is in peril, for in most cases the allocation of multiple-race reports will not make a significant difference (Persily 2000). But only one court case in one district is needed to call into question the principles underlying the OMB racial allocation rules.

Civil rights enforcement has traditionally been less subject to strict numerical thresholds. Nonetheless, statistical significance has been used as a standard in the courts and the method of allocation might end up making a difference here. In particular, we find that the allocation of mixed white/non-white people to minority groups can increase some of the socioeconomic characteristics of minority groups. We found using 1990 census data that allocation of mixed white-nonwhite individuals to the minority group tends to raise the socioeconomic profiles of the black and American Indian populations, but to lower slightly the socioeconomic profile of Asian Americans. This could have consequences for employment discrimination cases, in which comparisons are being made not just by race but also by education level and other characteristics.

For now the controversy about allocation is likely to center on only a few cases. In future, as the multiracial population grows, the courts will presumably issue rulings and lawmakers may modify existing legislation. A possible outcome of uncertainty and controversy about tabulation may be to weaken the statistical basis for enforcing existing civil and voting rights laws. In a climate of increasing opposition to racial classification and the use of racial statistics, it is hard to

see how multiple race responses and the problems associated with allocating back to single races will strengthen the case for race-based laws and public policies.

As a final comment, we note that there is the danger that the OMB reallocation rules will automatically become the default method for treating multiple-race responses. As many have noted, official statistical classifications are not only a reflection of the broader society but also have a tendency to take on a life of their own. As the multiple-race population of the United States grows, it would seem unwise for the government to encourage the wholesale reclassification of the mixed-race population toward traditional minority populations. It is not that this particular result is necessarily undesirable, but rather that it or some other result should be set into motion after sufficient democratic discussion, not as an unintended consequence of a single administrative action. Ideally, the principle of self-identification should give mixed-race people the ability to identify with minority, majority, or mixed groups. Allocation may be necessary for the enforcement of existing civil rights law, and the OMB guidelines explicitly limit allocation to such enforcement issues. Yet any application of the rules sets a precedent for the legal and statistical treatment of the multiple-race population, one that may be difficult to undo in the years ahead.

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Table 1. U.S. Racial Composition in 1990 According to Three Classification Schemes: (A) 1990 Census Single-Race Format; (B) Single-Race Groups and Dual-Race Permutations; (C) OMB Allocation Guidelines

Race	(A)		(B)		(C)	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
White	199,262,000	80.35	191,822,000	77.36	191,822,000	77.36
Black	29,783,000	12.01	29,006,000	11.70	29,729,000	11.99
Am. Indian/AN [a]	2,030,000	0.82	1,608,000	0.65	8,528,000	3.44
Asian/PI [b]	7,150,000	2.88	6,727,000	2.71	7,577,000	3.06
Other	9,732,000	3.92	9,684,000	3.91	9,684,000	3.91
White-Black [c]			296,000	0.12		
White-Indian			6,545,000	2.64		
White-Asian			621,000	0.25		
Black-White			427,000	0.17		
Black-Indian			314,000	0.13		
Black-Asian			55,000	0.02		
Indian-White			375,000	0.15		
Indian-Black			36,000	0.01		
Indian-Asian			16,000	0.01		
Asian-White			230,000	0.09		
Asian-Black			48,000	0.02		
Asian-Indian			148,000	0.06		
To Be Determined [d]					617,000	0.25
TOTAL	***247,957,000***	***100.00***	***247,957,000***	***100.00***	***247,957,000***	***100.00***

[a] AN = Alaska Native.

[b] The OMB guidance includes the 1997 decision to create two categories, "Asian" and "Native Hawaiians and Other Pacific Islanders." Here we aggregate the two for comparison to the 1990 census count.

[c] The order in which dual-race responses are listed correspond to the responses to the 1990 census race question and the ancestry question, respectively. For example, someone who responded "Asian" to the race question and then wrote in "Chinese" and "Cherokee" ancestry on the ancestry question is counted here as "Asian-Indian". It will not be possible to distinguish between primary and secondary racial identities in the 2000 census, but we do so here in order to provide additional detail.

[d] We assign responses including two nonwhite races to the "To Be Determined" row because the OMB guidelines do not set a single fixed rule for these cases.

Source: Unweighted 1-in-100 1990 IPUMS sample. See Goldstein and Morning (2000) for additional details at methodology.

Table 2. Racial Composition of Selected States According to (A) 1990 Single-Race Format and (B) OMB Allocation Guidelines

	California			District of Columbia		
	A. Reported	B. Allocated	*% Change*	A. Reported	B. Allocated	*% Change*
White	20,482,100	19,727,200	*-3.7*	179,500	176,900	*-1.4*
	(69.1)	(66.5)		(29.2)	(28.8)	
Black	2,171,800	2,189,450	*0.8*	407,100	406,350	*-0.2*
	(7.3)	(7.4)		(66.3)	(66.2)	
Amer. Indian/Alaskan	262,500	858,750	*227.1*	1,700	4,750	*179.4*
	(0.9)	(2.9)		(0.3)	(0.8)	
Asian/Pacific Islander	2,832,000	2,981,000	*5.3*	10,900	11,600	*6.4*
	(9.5)	(10.1)		(1.8)	(1.9)	
Other Race	3,912,300	3,904,300	*-0.2*	14,700	14,300	*-2.7*
	(13.2)	(13.2)		(2.4)	(2.3)	
Total	29,660,700	29,660,700		613,900	613,900	
	(100.0)	(100.0)		(100.0)	(100.0)	
	Hawaii			**Oklahoma**		
	A. Reported	B. Allocated	*% Change*	A. Reported	B. Allocated	*% Change*
White	370,600	323,700	*-12.7*	2,566,400	2,293,900	*-10.6*
	(33.8)	(29.5)		(81.9)	(73.2)	
Black	26,000	25,750	*-1.0*	227,100	246,250	*8.4*
	(2.4)	(2.3)		(7.2)	(7.9)	
Amer. Indian/Alaskan	4,000	14,700	*267.5*	265,100	512,000	*93.1*
	(0.4)	(1.3)		(8.5)	(16.3)	
Asian/Pacific Islander	676,400	713,350	*5.5*	32,200	38,750	*20.3*
	(61.6)	(65.0)		(1.0)	(1.2)	
Other Race	20,600	20,100	*-2.4*	42,200	42,100	*-0.2*
	(1.9)	(1.8)		(1.3)	(1.3)	
Total	1,097,600	1,097,600		3,133,000	3,133,000	*0.0*
	(100.0)	(100.0)		(100.0)	(100.0)	

Note: This comparison uses a 1% IPUMS sample of the 1990 U.S. census to compare the racial distribution as reported to the racial breakdown that would obtain if mixed-race people were allocated to single-race categories using the method outlined in OMB's Bulletin 00-02. Note that we allocate the double-minority multiracial groups evenly between non-white races.

Table 3. Racial Composition of Sacramento According to Sacramento Dress Rehearsal 1998 and Allocation with Priority to (A) Black, (B) American Indian, (C) Asian, and (D) Native Hawaiian and Pacific Islander Populations According to OMB Guidelines

Race	Unallocated		Allocated With Priority To Various Nonwhite Races							
			(A) Black		(B) Am Ind.		(C) Asian		(D) NH or PI	
	No.	Perc.	No.	Perc.	No.	Perc.	No.	Perc.	No.	Perc.
One Race										
White	19,504	48.3	19,504	48.36	19,504	48.36	19,504	48.36	19,504	48.36
Black	6,382	15.8	6,930	17.18	6,662	16.52	6,662	16.52	6,662	16.52
American Indian	1,232	3.0	1,534	3.80	1,854	1.60	1,534	3.80	1,534	3.80
Asian	6,052	15.0	6,358	15.76	6,358	15.76	6,628	16.14	6,358	15.76
Native Hawaiian or PI	259	0.6	288	0.72	288	0.72	288	0.72	613	1.52
Other	4,702	11.6	5,082	12.60	5,082	12.60	5,082	12.60	5,082	12.60
Two Races										
White and Black	279	06								
White and Am. Indian	301	0.7								
White and Asian	305	0.7								
White and NH or PI	29	0.0								
White and Other	379	0.9								
Black and Am. Indian	107	0.2								
Black and Asian	58	0.1								
Black and NH or PI	12	0.0								
Black and Other	90	0.2								
Am. Indian and Asian	36	0.0								
Am. Ind. and NH or PI	158	0.3								
Am. Indian and Other	18	0.0								
Asian and NH or PI	95	0.3								
Asian and Other	81	0.3								
NH or PI and Other	59	0.1								
Three or More Races	184	0.4								
To Be Decided			633	1.57	581	1.44	630	1.56	577	1.43
TOTAL	***403,314***	***100.00***	***403,314***	***100.00***	***403,314***	***100.00***	***403,314***	***100.00***	***403,314***	***100.00***

Source: 1998 Census Dress Rehearsal.

Table 4. Socioeconomic Characteristics of Adults (Over Age 18) by Race in 1990, Comparing Original Census Race Classification with Classification of Expected Multiple-Race Categories Using the OMB Guidelines

Race	1990 Census Count		OMB Reallocated Count	
	Estimate	(Std. Err.)	Estimate	(Std. Err.)
A. FAMILY INCOME ($)				
White	41,984	(47)	42,281	(48)
Black	28,864	(101)	28,883	(102)
Am. Indian/Alaska Nat.	28,739	(343)	32,248	(143)
Asian/Pacific Islander	48,610	(329)	48,231	(324)
Other	29,633	(188)	29,617	(189)
To Be Determined [a]			37,722	(859)
B. HOME VALUE ($)				
White	108,391	(136)	109,479	(138)
Black	69,129	(337)	69,044	(335)
Am. Indian/Alaska Nat.	66,566	(1,155)	69,700	(423)
Asian/Pacific Islander	192,577	(1,140)	190,362	(1,123)
Other	101,377	(917)	101,345	(919)
To be Determined			126,707	(3,401)
C. DUNCAN'S SOCIOECONOMIC INDEX (SEI) [b]				
White	43.19	(.02)	43.43	(.02)
Black	33.38	(.06)	33.37	(.06)
Am. Indian/Alaska Nat.	34.01	(.23)	35.92	(.10)
Asian/Pacific Islander	44.57	(.14)	44.37	(.14)
Other	29.18	(.11)	29.16	(.11)
To be Determined			40.80	(.44)
D. EDUCATIONAL LEVEL [c]				
White	10.45	(.00)	10.48	(.00)
Black	9.49	(.01)	9.49	(.01)
Am. Indian/Alaska Nat.	9.49	(.03)	9.57	(.01)
Asian/Pacific Islander	10.86	(.02)	10.84	(.02)
Other	7.96	(.02)	7.96	(.02)
To be Determined			10.55	(.05)

[a] We assign responses including two nonwhite races to the "To Be Determined" row because the OMB guidelines do not set a single fixed rule for these cases.

[b] Duncan's SEI ranges from 1 to 96 for those employed.

[c] Education is coded as follows: 7 = < 11th grade; 8 = 11th grade; 9 = 12th grade, no diploma; 10 = high school graduate; 11 = some college.

Note: Percent missing for each variable: income, 3.5; home value, 34.2; SEI, 21.6; education, 0.

Source: Unweighted 1-in-100 1990 IPUMS sample. See Goldstein and Morning (2000) for additional details of methodology.

Table 5. Socioeconomic Characteristics of Selected Multiple-Race Groups (Adults 18 and Over Only)

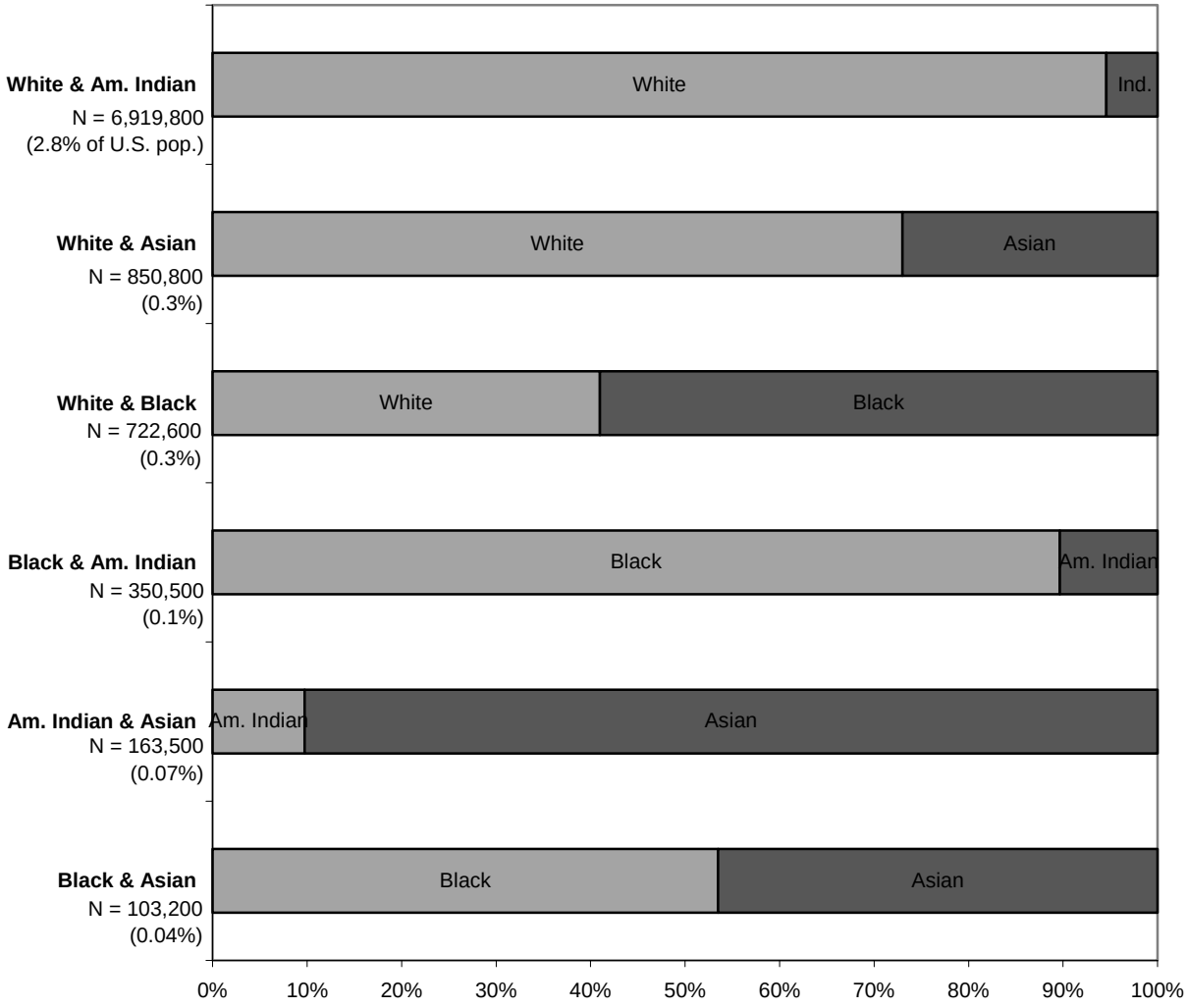
Racial Category	Family Income ($)	Home Value ($)	SEI [a]	Education Level [b]
A. Ordered Permutations				
White-Black	32,100	85,000	37.5	9.8
White-Am. Indian	33,200	71,000	36.4	9.6
White-Asian/PI	43,300	141,000	42.5	10.8
Black-White	30,300	97,000	36.5	10.1
Am. Indian-White	34,400	84,000	37.8	10.1
Asian/PI-White	44,700	170,000	44.3	11.1
B. Aggregated Into Combinations				
White-Black	31,000	91,000	36.9	10.0
White-Am. Indian	33,300	71,000	36.5	9.6
White-Asian/PI	43,700	150,000	43.1	10.9
C. Comparison To Single-Race Groups				
White	42,300	109,000	43.4	10.5
Black	28,800	69,000	33.2	9.5
Am. Indian/AN	27,100	61,000	33.0	9.3
Asian/PI	48,600	193,000	44.5	10.8

[a] Duncan's SEI ranges from 1 to 96 and applies only to those employed.

[b] Education is coded as follows: 7 = <11th grade; 8 = 11th grade; 9 = 12th grade, no diploma; 10 = high school graduate; 11 = some college.

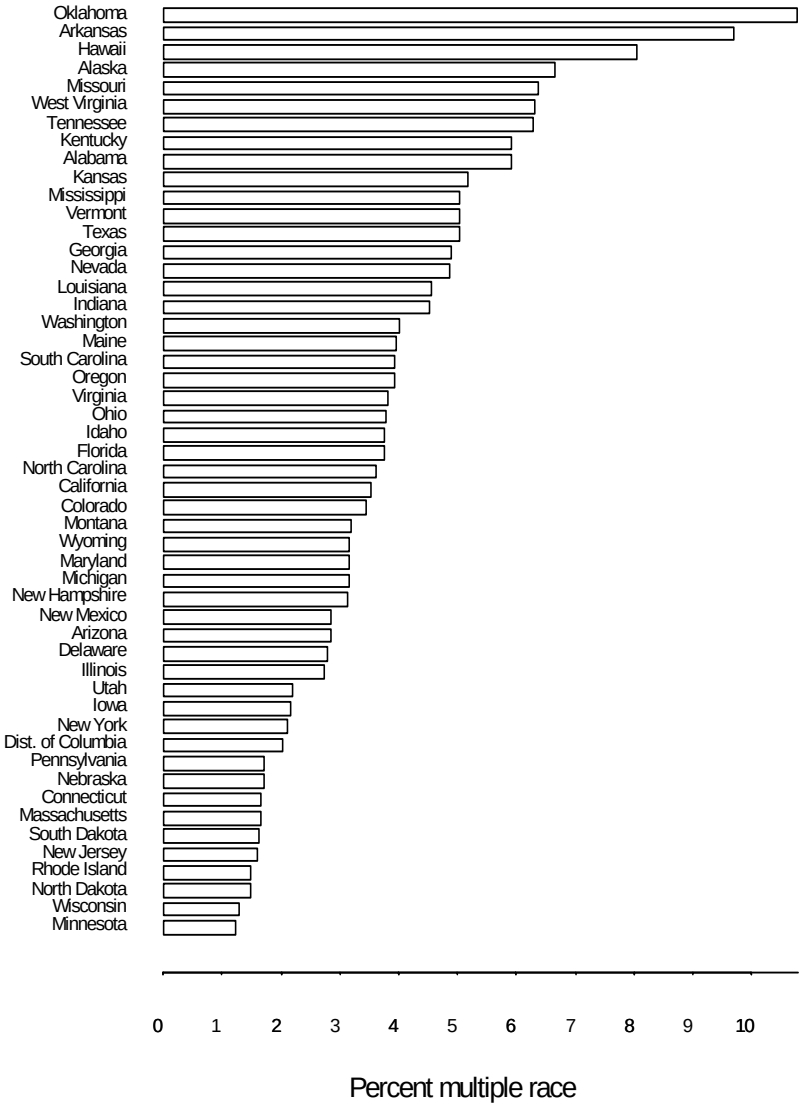
Source: Unweighted 1-in-100 1990 IPUMS sample. See Goldstein and Morning (2000) for additional details of methodology.

Figure 1. Primary Single Race Chosen by Respondents Who Identified Multiple Racial Ancestry in the 1990 Census



Source: 1-in-100 unweighted 1990 IPUMS sample, as analyzed in Goldstein and Morning (2000).

Figure 2. Percentage of Each State Identifying With Multiple Races in 1990



Endnotes

[1] As of this writing, the new Bush administration has not announced whether it plans to revise the OMB guidelines. Since the release of OMB Bulletin 00-02, the Tabulation Working Group (2000) has issued additional guidance for tabulation, bridging methods, and collection of multiple-race data.

[2] In practice, American Indian and Asian responses are not usually specified as "non-Hispanic" because the number of Hispanic responses in these racial categories is small. The allocation of Hispanic Asians and Hispanic American Indians to the Hispanic category is implicit.

[3] For more details regarding our methodology as well as its advantages and disadvantages, see Goldstein and Morning 2000.

[4] Our analysis inferred a maximum of two races per person and does not include triple-, quadruple-, quintuple-, and sextuple-race categories.

[5] What changes there are occur because we consider as multiracial those respondents who marked "Some Other Race" and then subsequently listed two racially-distinct ancestries. These multiracial people were then allocated according to the same rules as everyone else.

[6] But see also the 1999 American Community Survey for local area estimates using the more-than-one-race format (Census Bureau 2000).

[7] Note that the 1990 census had a single category "Asian and Pacific Islander," but that it was subsequently split into two categories, "Asian" and "Native Hawaiian and Other Pacific Islander."

[8] We select only multiple-race groups with some white ancestry here because their allocation is more clearcut under the OMB rules than those of other multiracial groups.