Measuring the Racial and Ethnic Composition and Diversity of the United States Population: Historical Challenges and Contemporary Opportunities

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Abstract

Every decennial census since the very first in 1790 has included a question on race; however, the race question in every decade has always been different in some shape or form. For example, a race category for "Mexican" was included in the 1930 Census, but there was not a formal question about Hispanic origin (i.e., "ethnicity") on the full decennial census until 1980. Since 1980, the Hispanic origin question has also undergone changes each decade. The frequent modification to these questions reflects the difficulty inherent to measuring the fluid and complex concepts of race or ethnicity. In this paper, we review the historical challenges and contemporary opportunities with accurately measuring the racial and ethnic composition and diversity of the U.S. population. Specifically, we provide an overview of the evolution of the race and ethnicity questions from the 1790 Census to the 2020 Census, review the U.S. Census Bureau's efforts to measure and analyze racial and ethnic diversity for the 2020 Census, and discuss the historic updates made in 2024 for improving the measurement of race/ethnicity in Federal data collections moving forward.

This presentation is released to inform parties of ongoing research and to encourage discussion in progress. Any opinions and conclusions expressed herein are those of the authors and do not reflect the views of the U.S. Census Bureau.

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Introduction

Every decennial census in the United States, since the very first in 1790, has included a question on race. However, the design of the race question has always been different, in some shape or form (U.S. Census Bureau 2021; Pratt et al. 2015). The history of measuring race in the U.S. decennial census reflects over two centuries of social, political, and economic change in the United States (Humes and Hogan 2009). The history of the race question – asked in various ways – follows the trajectory of our nation, encapsulating the era of slavery and emancipation, the incorporation of American Indians into the general U.S. population, the annexation of parts of Mexico, immigration from Asia and Latin America, the admittance of Alaska and Hawaii as the 49th and 50th states, the Civil Rights Movement, the growth of the foreign-born population, and the increase of the Multiracial/Multiethnic population.

The first Federal standards for race and ethnicity data were established in 1977 by the U.S. Office of Management and Budget's (OMB) Statistical Policy Directive No. 15 (OMB 1977). The original standards were established by OMB in the late 1970s, in cooperation with Federal agencies, to provide consistent data on race and ethnicity (when aggregated to the minimum reporting categories) throughout the Federal Government, including the decennial census, household surveys, and Federal administrative forms (e.g., benefit application forms). Initial development of this data standard stemmed in large part from Federal responsibilities to enforce civil rights laws. The goals of SPD 15 are to ensure the comparability of race and ethnicity across Federal datasets and to maximize the quality of that data by ensuring that the format, language, and procedures for collecting the data are consistent and based on rigorous evidence. To achieve these goals, SPD 15 provides a minimum set of categories that all Federal agencies must use if they intend to collect information on race and ethnicity, regardless of the collection mechanism (OMB 2024a).

Prior to 1980, the decennial census and other Federal data collections had varying categories for race, ethnicity, and color. For example, a race category for "Mexican" was included in the 1930 Census, and the 1970 Census included a question about Hispanic origin on the long-form sample questionnaire. Following the establishment of the original SPD 15 in 1977, a separate question on Hispanic origin first appeared on the full decennial census in 1980, and continued through the 2020 Census. Throughout this period, the question underwent changes with each decade.

The original 1977 SPD 15 was reviewed in the 1990s, and OMB issued a revision in 1997 with the *Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity*. Since the 1997 revision to SPD 15, there have been large societal, political, economic, and demographic shifts in the United States, including increasing racial and ethnic diversity, a growing number of people who identify as more than one race or ethnicity, and changing immigration and migration patterns. Recognizing the critical need for revisions to SPD 15, OMB announced a formal review of SPD 15 in June 2022 with the goal of updating SPD 15 to better reflect the diversity of the Nation (Orvis 2022).

All Federal information collections that collect information on race and ethnicity must adhere to SPD 15. The frequent modification to the race and ethnicity questions reflects the difficulty inherent with measuring these characteristics in the U.S. population. In this paper, we review the

historical challenges and contemporary opportunities with accurately measuring the racial and ethnic composition and diversity of the U.S. population using the decennial census. Specifically, we provide an overview of the evolution of the race and ethnicity questions from the 1790 Census to the 2020 Census, review the Census Bureau's efforts to measure racial and ethnic diversity, and discuss potential plans for improving the measurement of these characteristics in data collections moving forward.

This paper addresses two of the issues of interest listed for the CRIW Conference. These include (1) "Current and historical collection of race and ethnicity data" and (2) "The future of terminology and communication of measures, such as retiring the constructs of *minority* and *majority* and introducing more informative measures and concepts, such as the *diversity index*."

We organize the paper in three sections. Section 1 discusses the history of measuring race and ethnicity in the United States through the lens of the U.S. decennial census, and the social context of the surrounding time periods. Section 2 describes work undertaken by the U.S. Census Bureau to measure and communicate analyses of racial and ethnic diversity with the 2020 Census results. Section 3 presents future opportunities for measuring race and ethnicity, with a discussion of the work that was undertaken in the Federal statistical system to review and revise SPD 15, and the resulting updated standards which were published in early 2024 with the goal of improving future data on race/ethnicity in the United States.

Section 1. History of Measuring Race and Ethnicity

The evolution of measuring race and ethnicity in the decennial census reflects changes in U.S. population and the methods used to collect the census data over more than two centuries. The original 1790 Census included three response categories: "Free White Females and Males," "All Other Free Persons," and "Slaves." Fast forward to the 2020 Census and there were six categories for race (White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Some Other Race) and two categories for ethnicity (Hispanic or Latino; Not Hispanic or Latino). Because the 2020 Census included the option for respondents to select more than one race category, there were 63 possible combinations of the race categories.

For much of U.S. decennial census history, the primary method for taking the census was to have U.S. Marshals, and later Census Bureau enumerators, collect the census information (Anderson 2015). The traditional census approach, where the census is administered to respondents, usually relied on the personal observations of the enumerator when measuring race (Gauthier 2002). The 1960 Census was the first to use a "mail-out" approach where self-response was the primary method for collecting the census data. This effectively instituted self-identification as the conceptual framework for reporting information about racial and ethnic identity, as people were asked to report their responses to the questions that were posed on the form.

Today, the Census Bureau values and prioritizes the concept of "self-identification" when collecting data on race and ethnicity. After SPD 15 was revised in 1997, beginning with Census 2000, respondents could select more than one category in the *race* question. This allowed the Census Bureau to produce statistics on the racial distribution of the U.S. population for both

single race groups ("race alone" concept), multiple race groups ("in combination" or "Multiracial" concept), and the maximum number of people reporting one or more race groups for each category ("race alone or in combination" concept).

The design of the race and ethnicity questions for the 2020 Census provided an opportunity for individuals from all communities, for the very first time, to "write-in" more detailed information for every one of the race and ethnicity categories, which allowed us to code the maximum amount of information on race for each respondent and all communities in the United States (Marks and Rios 2021). These changes to measuring race have been critical for allowing respondents to fully self-identify their racial identity and not limit their response to one racial category. Subsequently, the 2010 Census and 2020 Census have both allowed respondents to select more than one race category and the Multiracial population has grown with each census (Jones et al. 2021).

History of Measuring Race and Ethnicity

There are several excellent resources that discuss how the race and Hispanic origin questions on the decennial census have changed over time (Anderson 2015, Humes and Hogan 2009, Pratt et al. 2015). For example, Humes and Hogan (2009) outline five distinct historical periods in the measurement of race and ethnicity in the decennial census. Pratt et al. (2015) produced an infographic showing the specific race categories in each census from 1790 to 2010. Both use a timeline approach that shows the evolution of the race and Hispanic origin questions over time. For this analysis, we focus on each of the current racial and ethnic groups other than White and highlight the key changes to the collection and tabulation for that group (Table 1).

The history of collecting information about the Black or African American population on the decennial census goes back to the first census in 1790, although these terms were not used. The census used the phrase "three-fifths of all other Persons," but it was clear to everyone that this refereed to the slave population (Humes and Hogan 2009). In 1820, the category "Free Colored People" was added to reflect the growth of the free-Black population. In 1850, blood quantum was introduced with the "Mulatto" as an attempt to capture the people with mixed heritage. This was expanded in 1890 to include the categories "Quadroon" and "Octoroon," which sought to quantify the percentage of Black blood a person had. These categories were dropped after one census because the data collected were not considered very accurate (Humes and Hogan 2009). However, "Mulatto" was added back as a category for the 1910 Census and the "one-drop" rule was added to enumerator instructions for the 1930 Census. The term "Negro" was first used on the Census in 1900 and remained on the census questionnaire until 2010 (Pratt et al. 2015). It was not until 2000 that "African American" was included as a category descriptor on the census.

The Asian category on the decennial census in many ways mirrors the historical trajectory of Asian immigration to the United States over the past two centuries. "Chinese" was added as a category to the 1870 Census following several decades of immigration from China (Humes and Hogan 2009). "Japanese" was added in 1890 after immigration from Japan increased when the U.S. government enacted laws restricting immigration from China (Table 1). For the 1920 Census, "Filipino," "Hindu," and "Korean" were added as race categories. "Hindu" and "Korean" were then dropped from the 1950 Census form, but "Korean" was added back on the

form in 1970. “Asian Indian” and “Vietnamese” were added as race categories for the 1980 Census, the latter being added after the Vietnam War. Also in 1980, there were 6 detailed checkboxes added for the largest Asian Categories (“Japanese,” “Chinese,” “Filipino,” “Korean,” “Vietnamese,” and “Asian Indian).

The 1980 Census was the first time that the different nationalities from Asia were combined to form the Asian category. The tabulations from the 1970 Census reported “White,” “Negro,” and “Other Race,” which included “Indian,” “Japanese,” Chinese,” “Filipino,” and “All Other.” The 1980 Census tabulated the Asian and Pacific Islander population, while still asking about the different Asian nationality groups on the form. It should be noted that the Census Bureau was following the then recently issued 1977 OMB Standards on Race and Ethnicity. Similarly, the Asian category was split out from the Pacific Islander group for the 2000 Census, again following the newly revised 1997 OMB Standards on Race and Ethnicity.

American Indians were not explicitly counted in the decennial census until 1860 when a category was added for “Indians” who are taxed (Table 1). The 1890 Census marked the first attempt to enumerate all American Indians (Humes and Hogan 2009). Blood quantum was dropped for the Black population in the 1900 Census but was still used on the American Indian questionnaire (Snipp 2000). With Alaska becoming a state in 1959, two new categories for “Eskimo” and “Aleut” were added to the 1960 Census form. Additionally, the term “American Indian” replaced “Indian” in 1960. Starting with the 2000 Census, the data for this population was tabulated as American Indian or Alaska Native.

In 1848, the Treaty of Guadalupe-Hidalgo was signed, and the United States annexed territory from Mexico that would become states in the current Southwest and West regions. Despite this change to the U.S. population, “Mexican” was not added to the census until 1930 when it became one of the race categories. A Hispanic self-identification question was added to the 1970 Census, but this was only one of the long-form items that were sent to a sample of households. Hispanic origin was included on the short-form of the 1980 Census. Also in 1980, categories were added for specific Hispanic categories: Mexican, Puerto Rican, and Cuban.

The categories “Hawaiian” and “Part-Hawaiian” were added to the 1960 Census after Hawaii became a state in 1959. “Other Asian Pacific Islander” was added as a category to the 1990 Census. At this time, the Native Hawaiian or Other Pacific Islander data were tabulated in the Asian Pacific Islander category. For the 2000 Census, Native Hawaiian and Other Pacific Islander became their own separate race category from Asian. Additionally, in 2000, three detailed Pacific Islander checkboxes for “Native Hawaiian,” “Guamanian or Chamorro,” and “Samoan” were added to the race question.

Table 1. Notable Milestones for the Decennial Census by Race and Ethnicity Category

Race and Ethnicity	Census Year	Notable Milestones
Black or African American	1790	Slaves counted as “three-fifths of all other Persons”
	1820	"Free Colored Persons" added as a race category
	1850	Blood quantum introduced with the "Mulatto" category
	1890	‘‘Quadroon’’ and ‘‘Octoroon’’ included as categories
	1900	The term Negro was used for the first time
	1910	“Mulatto” added back as a category
	1930	"One-drop" rule added to enumerator instructions
	2000	“African American” added as a category descriptor
	2020	“Negro” is removed from the race question
Asian	1870	"Chinese" added as a race category
	1890	"Japanese" added as a race category
	1920	“Filipino,” “Hindu,” and “Korean” added as race categories
	1950	“Hindu” and “Korean” dropped as race categories
	1970	“Korean” added back as a race category
	1980	“Asian Indian” and “Vietnamese” added as race categories and 6 detailed checkboxes added for the largest Asian categories
	1990	Data tabulated as Asian or Pacific Islander
	2000	Data tabulated as Asian after 1997 OMB Directive 15
American Indian and Alaska Native	1860	Data collected on “Indians” who are taxed
	1890	First attempt to enumerate all American Indians
	1900	Blood quantum used to approximate assimilation
	1960	"American Indian" replaces "Indian" as a category; "Eskimo" and "Aleut" added after Alaska became a state
	2000	Data tabulated as American Indian or Alaska Native
Hispanic	1930	"Mexican" added as a race category
	1970	Hispanic self-identification question asked to a sample
	1980	Hispanic origin question asked to everyone and categories were added for specific Hispanic categories (Mexican, Puerto Rican, and Cuban)
Native Hawaiian or Other Pacific Islander	1960	"Hawaiian" and "Part-Hawaiian" added after Hawaii became a state
	1990	“Other Asian Pacific Islander" added as a category
	2000	New minimum category for Native Hawaiian or Other Pacific Islander; use of 3 detailed Pacific Islander checkboxes
Multiracial Population	2000	Census allows respondents to select more than one race
	2020	Expanded write-in and improved coding allows respondents to better report their complete heritages
Some Other Race	1790-1840	“All Other Free Persons”
	1910-1990	“Other”, “etc.?” and “Other Race”
	2005	“Some Other Race” is mandated by congress even though it does not follow the 1997 OMB standards

Source: Adapted from Humes and Hogan (2009) and Pratt, Hixson, and Jones (2015).

As noted above, the decennial census has a long and checkered history with collecting data on people with multiple racial identities. It seems that the underling purpose of asking about multiple racial identities for the Black population was exclusion, while the purpose for asking similar questions for American Indians was to measure assimilation and ultimately erase the population. The 2000 Census allowed respondents to select more than one race category and the Census Bureau tabulated the data as "alone or in combination" and "Two or more Races" categories. In contrast to past attempts to measure the Multiracial population, the goal of the new approach was to be inclusive of the growing number of people who identified and celebrated more than one race. The 2020 Census expanded the write-in categories and improved coding of the race responses, which allowed respondents to better report their complete heritages.

From 1790 to 1840, people who did not fit into the listed race groups were put into the "All Other Free Persons" category. For six decades there was not an "Other" category on the census. From 1910 to 1990, the category was labeled as "Other," "etc.?" and "Other Race." The 1997 OMB standards discouraged federal agencies from collecting an "Other" race category. However, Congress passed the 2005 Omnibus Appropriation Bill, which mandated that the Census Bureau must include "Some Other Race" as a category when collecting census data. The reasoning behind requiring the Some Other Race category was to provide a response category for Hispanics who may not see themselves in the official OMB race categories (Humes and Hogan 2009). In the 2020 Census, the Some Other Race population was the second largest alone or in combination race group in the United States – behind only the White population – making up 15.1% of the population (Jones et al. 2021).

Comparative Approaches

The changing approaches to measuring race and ethnicity in the census is not unique to the United States. Canada and Australia have followed similar historical paths to the United States regarding how race and ethnicity have been categorized in the census data. However, in recent rounds of censuses the three countries take very different approaches (Stevens et al. 2015).

The United States, Canada, and Australia share similar historical, political, and social trajectories including their origin as a British colony, their status as immigrant receiving countries, and their large indigenous populations (Stevens et al. 2015). As former British colonies, the earliest collections of data on race and ethnicity focused mainly on establishing the size of the White population relative to all other groups.

This focus on the White population was evident in the immigration policies enacted by each country in the 19th and early 20th centuries. From 1882-1910, the United States enacted several laws that prohibited Chinese immigrants and their families from immigrating and becoming permanent residents (Calavita 2000). Canada adopted similar restrictive policies for Chinese immigrants (Holland 2007). Australian immigration policy long favored immigrants from the United Kingdom under a policy called "White Australia" that prevented immigration from other regions (Stevens and Fozdaar 2021). After World War II, these countries adopted new policies that allowed immigration from all over the world, which greatly increased the racial and ethnic diversity in each country.

A final similarity between these three countries is that they have large indigenous populations that were living in the territory at the time of contact and later became part of the country's population. For example, the United States did not include "Indian" as a category on the census until 1870, but since that time there has been a race category for the indigenous population on each subsequent census (Pratt et al. 2015). Canada's first census in 1871 included questions about "origins"; however, enumerators often faced resistance from the indigenous population when trying to conduct the census (Hamilton 2007; Kwan-Lafond and Winterstein 2020). Since Australia became an independent country in 1901, the aboriginal and Torres Straight Islander populations were included in the census, but they were not part of the official population totals until 1971 (Markham and Biddle 2018).

Despite these shared historical trajectories, today the United States, Canada, and Australia have significantly different approaches to measuring race and ethnicity in the census. The United States focuses on self-identified race and ethnicity, for which respondents can choose between different options and write-in detailed information about their racial and ethnic identity. Since the 1996 Census, Canada has used an approach to measuring race called the "visible minority" where respondents are asked "is this person…" and then given a series of response categories including White, South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean, Japanese, and Other (Statistics Canada 2022a). The responses are then categorized into visible minority status, which consists of "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-White in color" (Statistics Canada 2022a). A separate question is used for indigenous status where people can identify as Inuit, First Nations, or Metis (Statistics Canada 2022b). Metis is a category that was originally used to identify the population in the Red River area of present-day Manitoba who had both indigenous and European ancestry, but the term has been used more broadly in recent decades by people who identify as multiracial including indigenous origins (Kwan-Lafond and Winterstein 2020).

After the 1976 Census, Australia stopped including a race or racial origins question on their census; however, they still include variables such as religion, birthplace, parental place of birth, year of arrival, language spoken, indigenous status, and ancestry (Stevens et al. 2015). Public sentiment about the concept of "race" was the biggest factor in the decision to stop using a race question on the census, but the various indicators of social and cultural origins in Australia are still used as proxies for identifying different population groups.

Broader Limitations to the Census Approach to Measuring Race and Ethnicity

The U.S. Census Bureau's current focus on using self-identified race and ethnicity may have some limitations for measuring the impact of race/ethnicity on different socioeconomic outcomes. For example, research focusing on phenotype characteristics has found that wages, educational attainment, health outcomes, and other socioeconomic characteristics varies by skin tone (Dixon and Telles 2017; Goldsmith et al. 2006; Keith et al. 2017; Monk 2014). The empirical research shows a consistent pattern where lighter-skinned people have better outcomes than darker-skinned people.

Many of these studies focus on *within* group variation in phenotype characteristics. For example, Monk (2021) argues that skin tone stratification within the Black or African American race group can sometimes be more pronounced than differences between the Black and White race

categories. Studies have pointed to the variation in outcomes based on phenotype characteristics within a race group as an indicator of increased discrimination faced by people with darker skin tones (Keith et al. 2017). There can also be variation *between* race groups in phenotype characteristics that leads to increased discrimination, especially for the Hispanic or Latino population (Dixon and Telles 2017; Golash-Bonza and Darity 2008).

Some scholars have cautioned that measuring race and ethnicity using only self-identified categories may show different outcomes from methods that focus on phenotype characteristics (Lopez et al. 2018; Telles 2018). One novel method to overcome this problem combines the phenotypical approach and broad category approach by asking Hispanic or Latino respondents to not only report how they self-identify but also "how do you think others see your race" (Lopez et al. 2018). This research has found that the multidimensional approach to measuring race and ethnicity exposes more heterogeneity in health outcomes within the Hispanic or Latino population than just using a self-identified race and ethnicity question.

While it is unlikely that the U.S. Census Bureau will include questions about skin tone or perceived race on the decennial census or in large demographic surveys, these other approaches may offer means for exploring and understanding additional dimensions of stratification within race/ethnicity groups that cannot currently be captured solely with self-identification measures.

Using Administrative Records

With declining response rates to household surveys, organizations that collect data are increasingly using administrative records to populate race and ethnicity information for non-responding households (Ennis et al. 2018; Rastogi et al. 2017). The Census Bureau has conducted considerable research on this topic and even used administrative records to impute race and Hispanic origin information for non-responding households in the 2020 Census (Cantwell 2021). However, for this approach to provide valid data, the administrative records need to have accurate detail on race and ethnicity, which can be difficult because administrative data for these variables may be limited, outdated, or nonexistent.

Research looking at the correlation between self-reported race and race in administrative data has often found that the agreement varies across different race groups (Kressin et al. 2003; Ennis et al. 2018; Jarrin et al. 2020). Using data from the U.S. Department of Veteran Affairs, Kressin et al. (2003) found that there was the least agreement between administrative data and self-reported race for Native American, Asian, and Pacific Islander patients. Ennis et al. (2018) found that Hispanics were more likely to have non-matching race and ethnicity responses between administrative records and third-party data and their 2010 Census response. An analysis comparing race and ethnicity codes in Medicare administrative data to self-reported race found that the highest agreement was for the Black population and the lowest agreement was for the AIAN population (Jarrin et al. 2020).

Some administrative data sources do not include information about race and ethnicity, but researchers have developed methods for assigning these variables based largely on surname and geographic residence (Filice and Joynt 2017). For example, Elliot et al. (2008) developed a

Bayesian approach to estimate race and ethnicity using surname and geocoded residential addresses that they compared to self-reported responses. The model – the Bayesian Surname and Geocoding (BSG) method – was more efficient than a non-Bayesian method for predicting the individual's response and developing population-level statistics. Later research expanded this approach to develop the Bayesian Improved Surname Geocoding (BISG) method that uses additional information such as first and middle name to predict race in administrative data (Imai et al. 2022).

The U.S. Census Bureau has developed a hybrid approach where administrative data are linked to self-responses from a prior census or survey using probabilistic matching. The probabilistic matching process assigns a unique identifier called a Personal Identification Key (PIK) to individuals using the Social Security Administration Numerical Identification file (SSA Numident) as a reference file (Wagner and Layne 2014). The PIK is the foundation of the administrative records work being done by the U.S. Census Bureau.

The administrative records linked to past Census or ACS responses were used for the first time in the 2020 Census for item-nonresponse and the administrative records modeling portion of the non-response follow-up operation (Cantwell 2021). Table 1 shows that of the 331.4 million people in the 2020 Census, approximately 3.2% had their race and Hispanic origin response carried over from a past census or ACS response as part of the administrative records enumeration (Mule 2022). This was slightly higher than the age and sex characteristics where 2.6% of responses came from a past Census or ACS response. When a past census or ACS response was not available, we used information from other administrative records (Table 1). However, the information from other administrative records accounted for a relatively small proportion of the total demographic characteristics tabulated in the 2020 Census.

Table 1. National Usage of Past Census and Administrative Records During Characteristic Imputation Processing: 2020 Census

Characteristic	Percent of 331.4 million assigned from	
	Past Census or ACS response	Other Administrative Records
Race	3.2%	1.5%
Hispanic Origin	3.2%	0.9%
Age	2.6%	1.4%
Sex	2.6%	1.2%

Source: U.S. Census Bureau, CBDRB-FY22-172

There are several concerns with this approach. First, if the PIK is not assigned correctly then the race response from a past census or survey response will not be valid. Even though research has shown that the false match rate for PIK assignment is relatively low (Layne et al. 2014), there is still a risk that the census or survey response is coming from another individual. Second, a person may change how they identify their race or Hispanic origin over time.

Liebler et al. (2017) looked at matched Census 2000 and 2010 results and found that a non-trivial number of individuals changed their race and/or ethnicity response in the later census. Using administrative data linked to past census or survey responses will not capture potential changes in an individual's racial or ethnic identity.

Finally, the race and ethnicity data on the past census or survey will only be available in the format they were originally collected. This could be problematic if there are large changes to the way that data on race and ethnicity are collected on a future census or survey. For example, the past census and survey data linked to administrative records that were used for 2020 Census operations had race and ethnicity in the separate question format and may not align well with the data from a combined question approach. However, there could be resources developed to help map race and ethnicity data collected using different formats (see section on race bridging).

Section 2. Measuring Racial and Ethnic Diversity

Over the years, the Census Bureau has used different approaches to describe changes in the racial and ethnic composition of the U.S. population. Beginning in 2008, we started using the Majority/Minority framework to describe geographic places where the non-Hispanic White population fell below 50 percent of the total population. This framework was applied to decennial census results, population estimates, and population projections. In particular, the Population Projections program received considerable attention for releasing their forecasts of when the "majority-minority crossover" would occur for the total U.S. population (Colby and Ortman 2015). However, this way of conceptualizing the changing composition of race and ethnicity was met with criticism by some race scholars (Alba 2017).

Changes to the racial and ethnic composition of the U.S. population are driven by subtle difference in demographic processes across groups. As birth rates decline for some groups and remain high for others, the racial and ethnic composition of the youngest cohorts will be different from older generations. Mortality can impact the racial and ethnic composition through differential mortality rates as well the age structure of the population. For example, the oldest-aged population, who are most at risk of dying, tend to be less racially and ethnically diverse than younger ages and therefore population decline from mortality will impact certain groups more than others. Immigration can also affect racial and ethnic composition. In recent decades, there has been substantial immigration from Latin America and Asia that has shifted the color line beyond the historical Black/White divide (Lee and Bean 2010).

Social scientists use different frameworks to describe the changing racial and ethnic composition of a population. These include the diversity index, segregation measures, and methods based on the percentage distribution of different groups (Johnson and Licther 2009; Iceland and Weinberg 2002; Massey, Rothwell, and Domina 2009; Meyer and McIntosh 1992). Each of these

approaches highlight a different way to conceptualize and operationalize changes in the racial and ethnic composition of a population.

The diversity index is a probability-based measure of racial and ethnic diversity in a population (Meyer and McIntosh 1992). Conceptually, the diversity index measures how similar or different the racial characteristics of two people would be that are randomly selected from the population. The diversity index ranges from 0 to 1, with a 0-value indicating that the two people randomly selected from the population will have similar racial and ethnic characteristics, while a value of 1 indicates that two people randomly selected will have different characteristics. Additionally, there are other indexes for measuring racial and ethnic diversity, such as the Entropy Index.

Racial and ethnic segregation measures quantify the degree to which groups are concentrated or dispersed across different categories. Residential segregation focuses on where members of different racial and ethnic groups live within a specific geography (e.g., Metropolitan Statistical Area or county). Similar methods are used to measure occupational segregation where racial or ethnic groups are concentrated in a particular occupation or industry. Segregation is measured along different dimensions including evenness, isolation, clustering, centralization, and concentration (Massey and Denton 1988). Segregation measures highlight the amount of potential interaction between different race and ethnic groups within a specific geographic area.

As the Census Bureau released the results of the 2020 Census, it was important that the results present information on race and ethnicity in ways that accurately reflect the characteristics of the population, use statistically appropriate methods, and show respect to census and survey respondents who trust the Census Bureau with their information. In 2019, the Population Division of the Census Bureau formed the *Disseminating Diversity Working Group* to provide recommendations about how to present information on race and ethnic diversity in the 2020 Census data products and beyond. The Working Group is made up of subject-matter experts in the areas of race and ethnicity, applied demography, statistical measurement, and data visualization.

One of the key issues that the Working Group discussed and deliberated on was the Census Bureau's past and future uses of the Majority/Minority framework. The Working Group came to a consensus that the agency should not use the Majority/Minority framework moving forward. This approach has several conceptual and practical challenges that limit its ability to illustrate the complex racial and ethnic diversity of the U.S. population. For example, while some researchers and datasets classify individuals who identify with multiple population groups as part of the majority population (such as Hispanic and White; White and Black or African American; and White and Asian), other researchers and datasets classify them as part of the minority population. The dual identities of these groups and their inclusion or exclusion in various approaches for data highlight the social, political, and economic complexities of race and ethnicity in 21st century U.S. society.

The inclusion of certain groups as part of the "majority" or "minority" has also become more complex and contested in recent decades, especially as many people may not identify with certain population groups even if that is how they are classified and tabulated per SPD 15. The

majority-minority approach is ambiguous, and it is further complicated by complex demographic and social realities.

To overcome these limitations, Census Bureau researchers focused on alternative racial and ethnic diversity measures to illustrate the complex racial and ethnic composition of the population in the 2020 Census results. In August 2021, based on the Working Group's analyses and data visualizations, the Census Bureau released several measures to describe the racial and ethnic diversity of the U.S. population in the 2020 Census. These included the diversity index (as described above), prevalence ranking tables and graphs, and prevalence maps (Jensen et al. 2021).

Diversity Index

Table 2 presents results for the states with the highest diversity index in the 2020 Census and the diversity index for these states in 2010. The probability statistics were converted into percentages to make the results easier for the public to interpret. For example, in 2020, there was a 76 percent chance that two people chosen at random in the state of Hawaii had a different race and ethnicity, which was a slight increase from 2010. Maryland was the state with the largest increase in the diversity index between 2010 and 2020, with a 6.6 percentage point increase.

Table 2. Ten States with the Highest Diversity Index: 2020 and 2010

State	Diversity Index		Percentage Point Difference
	2010	2020	
Hawaii	75.1	76.0	0.9
California	67.7	69.7	2.0
Nevada	62.5	68.8	6.3
Maryland	60.7	67.3	6.6
District of Columbia	61.9	67.2	5.3
Texas	63.8	67.0	3.2
New Jersey	59.4	65.8	6.4
New York	60.2	65.8	5.5
Georgia	58.8	64.1	5.3
Florida	59.1	64.1	5.1

Note: Demographic changes, as well as improvements to the ways in which race and ethnicity data are collected and processed, reveal the United States population is more racially and ethnically diverse than measured in 2010. States were selected using 2020 data and may not include the 10 states with the highest diversity index in 2010.

Percentage Point Difference based on unrounded values.
Information on confidentiality protection, nonsampling error, and definitions is available at https://www.census.gov/programs-surveys/decennial-census/technical-documentation/complete-technical-documents.html#redistricting
Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File. 2020 Census Redistricting Data (Public Law 94-171) Summary File.

Prevalence Rankings

Prevalence rankings show the percent of the population that falls into the first-largest, second-largest, or third-largest racial or ethnic groups. In the 2020 Census, the most prevalent racial or ethnic group for the United States was the White alone non-Hispanic population at 57.8%. The group's prevalence decreased from 63.7% in 2010. The Hispanic or Latino population was the second-largest racial or ethnic group, comprising 18.7% of the total population. The Black or African American alone non-Hispanic population was the third-largest group at 12.1%.

Census Bureau researchers also calculated a diffusion score, which measures the combined percentage of all racial and ethnic groups that are not in the first-largest, second-largest, or third-largest racial and ethnic group. This calculation illustrates how diverse and "diffused" the population is relative to the largest groups. The higher the score, the less concentrated the population is in the three largest race and ethnic groups. In 2020, the remaining racial and ethnic groups combined to make up 11.4% of the total population, representing the diffusion score.

Prevalence Maps

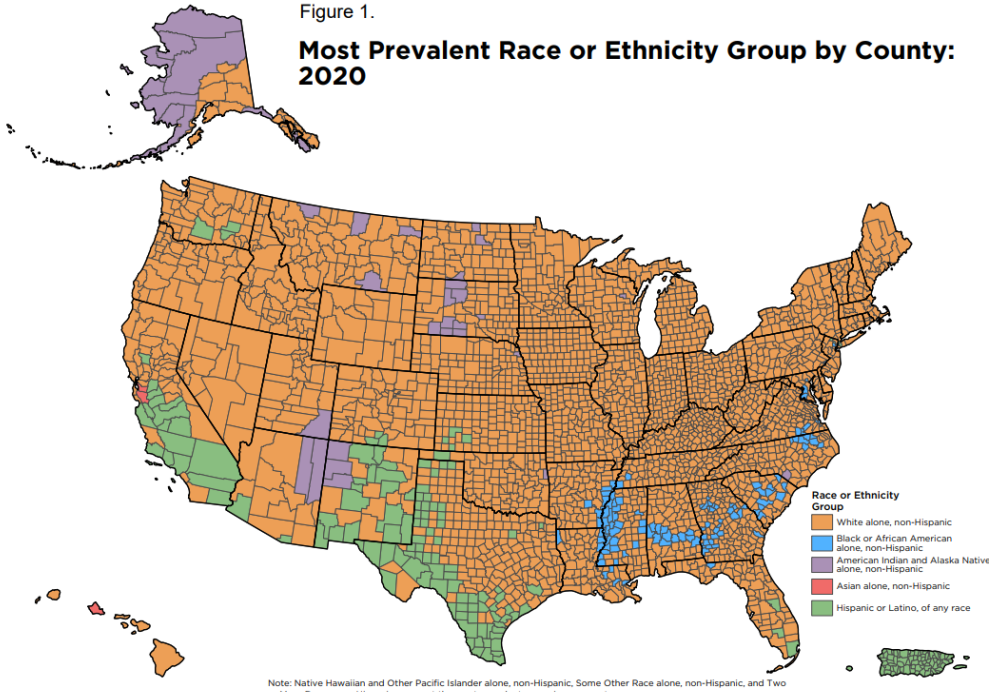
Prevalence maps provide an additional measure of diversity, showing how the largest racial and ethnic groups are geographically distributed across geographic areas. The prevalence map for the most prevalent race or ethnicity group by county shows that for most counties in the United States, White alone non-Hispanic was the largest group (Figure 1). The maps also show some regional variations, such as counties in the South where the Black or African American alone non-Hispanic population is the largest group. There are also quite a few counties in the Southwest where the Hispanic or Latino population is the largest race group. The American Indian and Alaska Native alone non-Hispanic population is the most prevalent group in some counties in the Great Plains, Four-Corners Area, and Alaska. Finally, the Asian alone non-Hispanic population was the largest group in a few counties in California and Hawaii.

There is considerably more variation in the second-most prevalent race or ethnicity group by county (Figure 2). Large numbers of counties where the Hispanic or Latino population is the second-most prevalent group are found in every region, spanning the continental United States. The Multiracial non-Hispanic population was the second-most prevalent group in counties in the in the Midwest, along the northern border, an in Hawaii. The Black or African American non-Hispanic population was the second-most prevalent race or ethnicity group in many of the counties in the South. Often, these patterns show an inverse relationship to the most prevalent group map.

Over the years, the U.S. Census Bureau has used different approaches to measure racial and ethnic diversity. For the 2020 Census results, Census Bureau researchers deliberately moved beyond limited approaches such as the Majority/Minority framework and focused on methods that highlight the complexity of racial and ethnic diversity in the United States. The chosen measures chosen – diversity index, prevalence rankings, prevalence maps, and diffusion scores – allow researchers, data users, and the public to explore the full array of race/ethnicity groups in a particular geographic area and not just the White/Other dynamic.

Figure 1.

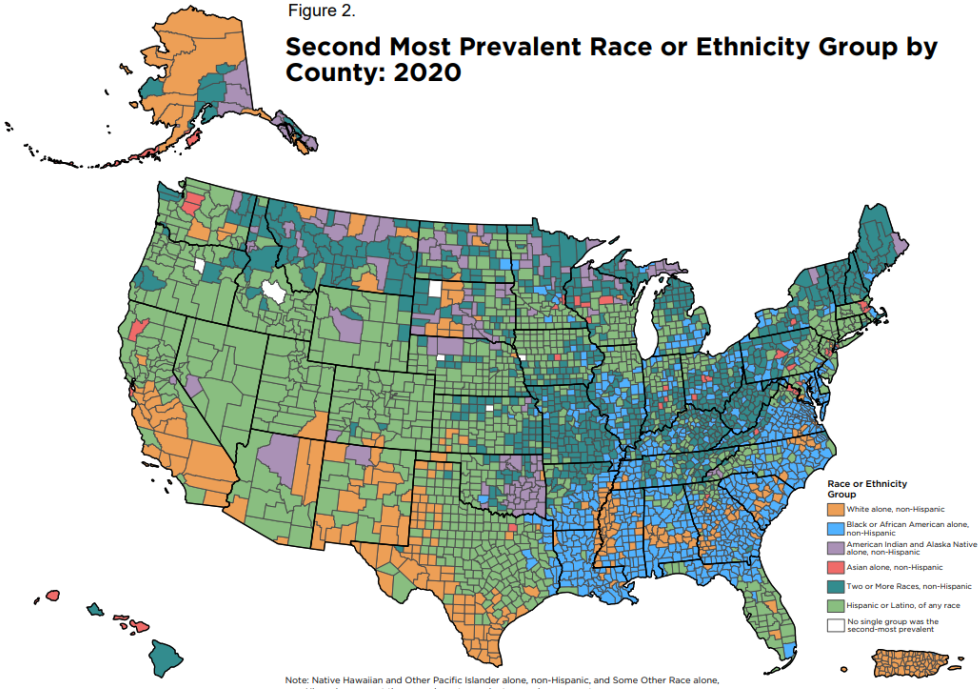
Most Prevalent Race or Ethnicity Group by County: 2020



Note: Native Hawaiian and Other Pacific Islander alone, non-Hispanic, Some Other Race alone, non-Hispanic, and Two or More Races, non-Hispanic were not the most prevalent group in any county.
Source: Public U.S. Census Bureau, 2020 Census Redistricting Data (Public Law 94-171) Summary File.

Figure 2.

Second Most Prevalent Race or Ethnicity Group by County: 2020



Note: Native Hawaiian and Other Pacific Islander alone, non-Hispanic, and Some Other Race alone, non-Hispanic were not the second most prevalent group in any county.
Source: U.S. Census Bureau, 2020 Census Redistricting Data (Public Law 94-171) Summary File.

Section 3. Future Opportunities for Race and Ethnicity

Background: Previous Census Bureau Research on Race and Ethnicity

The Census Bureau has made revisions and improvements to the race and ethnicity questions for the decennial census and demographic surveys since 1980 based on evidence from empirical qualitative and quantitative research, as well as consultation and engagement with stakeholders, advisors, and the public, and adhering to OMB's SPD 15 for collecting and reporting race and ethnicity (OMB 2017). Future improvements to the measurement of race and ethnicity, and the design of a question or questions to do so, will be guided by these three factors – empirical research, public engagement, and Federal standards.

In 2015, the Census Bureau conducted the National Content Test (NCT) in preparation for the 2020 Census. The NCT included a combined race and Hispanic origin question to test if this format created less burden and provided better data than the two separate questions approach. The results showed that using a combined question format – with multiple detailed checkboxes, write-in fields, and a dedicated option for Middle Eastern or North African (MENA) respondents – reduced respondent burden and improved the accuracy of the results, especially for the Hispanic or Latino population and the multiracial/ethnic population (Matthews et al. 2017).

Another key finding from the NCT was that using the combined question format greatly reduced the number of people identifying as SOR. SOR was intended to be a relatively small category but was the third largest race group in both the 2000 Census and 2010 Census (Humes et al. 2011) and has since grown to be the second largest race alone or in combination category in the 2020 Census, at 50 million people (Jones et al 2021). SOR is often selected by Hispanic or Latino respondents who do not see their racial identity reflected in the SPD 15 race categories. While not all Hispanic or Latino respondents identify as SOR, nearly all SOR responses are Hispanic or Latino, and reducing the size of the SOR race group was an improvement to the data collected in the 2015 NCT.

Ultimately, the greatest factor in changing the design of the race and ethnicity question(s) are Federal standards issued by OMB with SPD 15. The original 1977 SPD 15 was revised in 1997 in part to respond to concerns that it did not adequately allow for self-identification, especially for people of Multiracial heritage, or reflect the increasing diversity of the U.S. population.

The U.S. Census Bureau has a long history of conducting research to improve questions and data on race and ethnicity and inform Federal standards. Since the 1970s, the Census Bureau has conducted content tests to research and improve the design and function of different questions, including questions on race and ethnicity. Over the past decade and a half, the Census Bureau conducted extensive research and outreach, including two groundbreaking national studies, on how to improve race and ethnicity question(s) so that these statistics better measure our nation's population, and to inform explorations of how Americans identify as our society continues to grow more diverse and more complex.

The Census Bureau's research last decade identified that a combined race and ethnicity question with multiple detailed checkboxes and a dedicated Middle Eastern or North African category is the optimal design for improving race and ethnicity data, in comparison with designs which use two separate questions (Figure 3). This approach was strongly supported by myriad stakeholders and organizations during OMB's review of potential revisions to 1997 SPD 15.

However, the Census Bureau does not make a unilateral decision on the content of the Census. In fact, determining the content for a census is an extensive undertaking with a three-pronged approach involving empirical research, outreach, and engagement with stakeholders, and ultimately the review and approval from the U.S. Office of Management and Budget and the United States Congress.

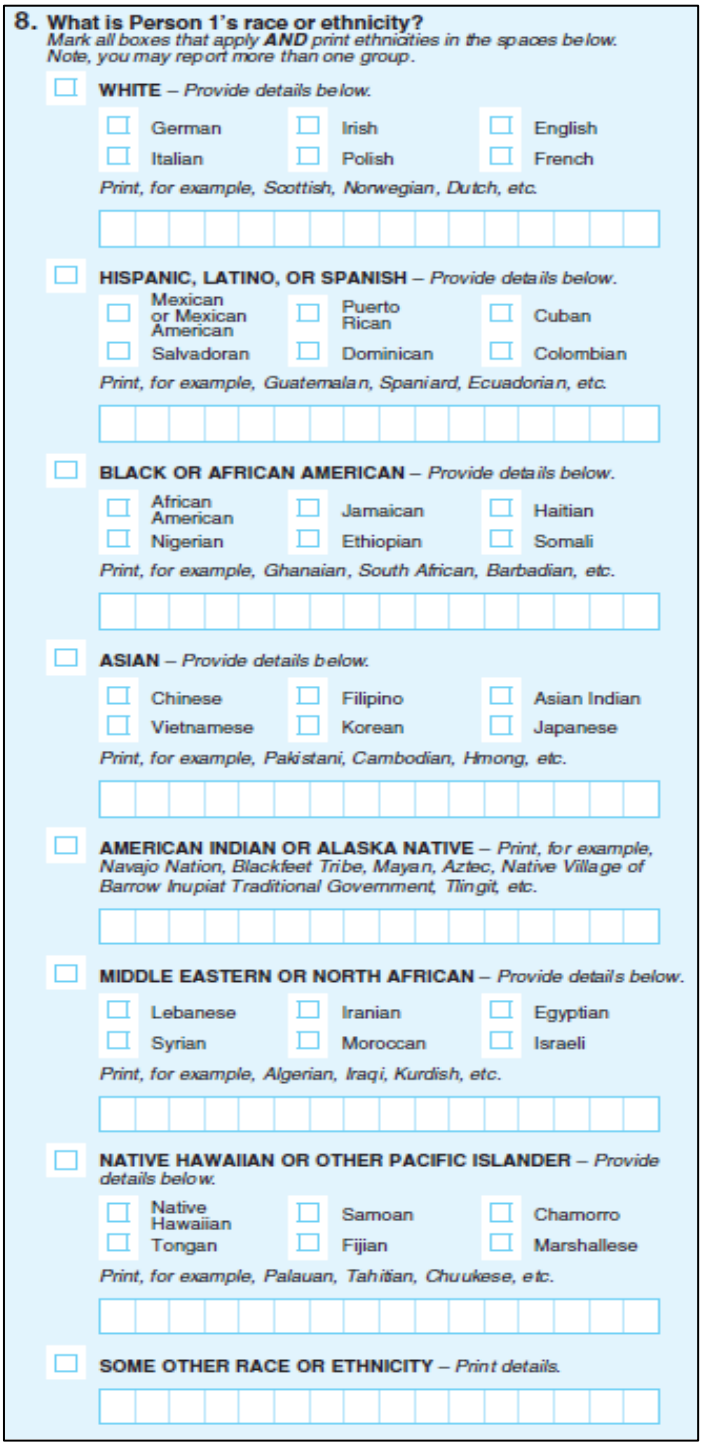
Race & Ethnicity in the 2020 Census

In the 2020 Census, the Census Bureau collected race and ethnicity data in accordance with the 1997 OMB standards on race and ethnicity, and responses to these questions are based on self-identification. The Census Bureau, along with other Federal statistical agencies, must follow SPD 15, which require two separate questions when collecting data on race and ethnicity. The decennial census race question, for the first time in 2020, collected detailed responses for the White population and for the Black or African American population (Figure 4).

Our research and public feedback over the past decade illuminated strong interest from respondents to be able to self-identify their detailed racial/ethnic background, such as German, Lebanese, Mexican, Jamaican, Nigerian, Chinese, Navajo, Samoan, etc. SPD 15 encourages this collection of detailed responses, and to address this, new examples and write-in areas were added to the 2020 Census ethnicity question and race question to give respondents from all backgrounds the opportunity to self-identify their racial/ethnic identities in the 2020 Census. For the 2020 Census, we collected detailed responses for all major categories (Hispanic, White, Black or African American, Asian, American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Some Other Race). In turn, this provided the ability to produce detailed tabulations for myriad population groups in the United States, such as German, Lebanese, Mexican, Jamaican, Nigerian, Chinese, Navajo, Samoan, Brazilian, etc.

Building upon our research over the past decade, the Census Bureau improved the two separate questions design and updated our data processing and coding procedures for the 2020 Census. This work began in 2015 and was centered on findings from our National Content Test, with the new designs implemented in the 2018 Census Test. The improvements and changes enabled a more thorough and accurate depiction of how people self-identify, yielding a more accurate portrait of how people report their Hispanic origin and race within the context of a two-question format. These changes revealed that the U.S. population is much more multiracial and diverse than what was measured in the past.

Figure 3. Optimal Design from Research Last Decade



8. What is Person 1's race or ethnicity?
*Mark all boxes that apply **AND** print ethnicities in the spaces below.*
Note, you may report more than one group.

☐ **WHITE** – *Provide details below.*

☐ German ☐ Irish ☐ English
☐ Italian ☐ Polish ☐ French

Print, for example, Scottish, Norwegian, Dutch, etc.

☐ **HISPANIC, LATINO, OR SPANISH** – *Provide details below.*

☐ Mexican or Mexican American ☐ Puerto Rican ☐ Cuban
☐ Salvadoran ☐ Dominican ☐ Colombian

Print, for example, Guatemalan, Spaniard, Ecuadorian, etc.

☐ **BLACK OR AFRICAN AMERICAN** – *Provide details below.*

☐ African American ☐ Jamaican ☐ Haitian
☐ Nigerian ☐ Ethiopian ☐ Somali

Print, for example, Ghanaian, South African, Barbadian, etc.

☐ **ASIAN** – *Provide details below.*

☐ Chinese ☐ Filipino ☐ Asian Indian
☐ Vietnamese ☐ Korean ☐ Japanese

Print, for example, Pakistani, Cambodian, Hmong, etc.

☐ **AMERICAN INDIAN OR ALASKA NATIVE** – *Print, for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Tlingit, etc.*

☐ **MIDDLE EASTERN OR NORTH AFRICAN** – *Provide details below.*

☐ Lebanese ☐ Iranian ☐ Egyptian
☐ Syrian ☐ Moroccan ☐ Israeli

Print, for example, Algerian, Iraqi, Kurdish, etc.

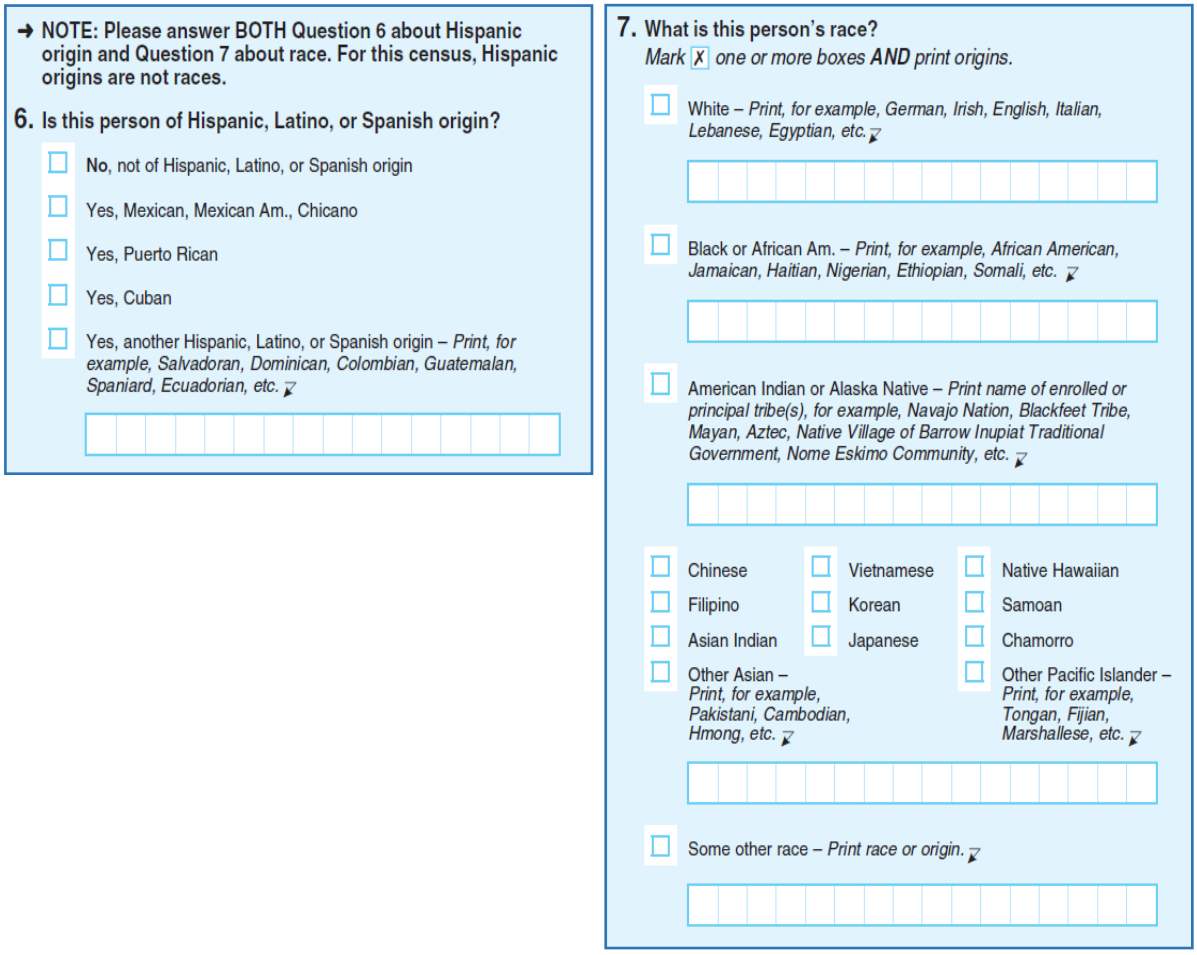
☐ **NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER** – *Provide details below.*

☐ Native Hawaiian ☐ Samoan ☐ Chamorro
☐ Tongan ☐ Fijian ☐ Marshallese

Print, for example, Palauan, Tahitian, Chuukese, etc.

☐ **SOME OTHER RACE OR ETHNICITY** – *Print details.*

Figure 4. 2020 Census: Two Separate Questions Design



➜ NOTE: Please answer BOTH Question 6 about Hispanic origin and Question 7 about race. For this census, Hispanic origins are not races.

6. Is this person of Hispanic, Latino, or Spanish origin?

- ☐ No, not of Hispanic, Latino, or Spanish origin
- ☐ Yes, Mexican, Mexican Am., Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, another Hispanic, Latino, or Spanish origin – *Print, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spaniard, Ecuadorian, etc.*

7. What is this person's race?

*Mark ☒ one or more boxes **AND** print origins.*

- ☐ White – *Print, for example, German, Irish, English, Italian, Lebanese, Egyptian, etc.*
- ☐ Black or African Am. – *Print, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc.*
- ☐ American Indian or Alaska Native – *Print name of enrolled or principal tribe(s), for example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, etc.*
- ☐ Chinese
- ☐ Filipino
- ☐ Asian Indian
- ☐ Other Asian – *Print, for example, Pakistani, Cambodian, Hmong, etc.*
- ☐ Vietnamese
- ☐ Korean
- ☐ Japanese
- ☐ Native Hawaiian
- ☐ Samoan
- ☐ Chamorro
- ☐ Other Pacific Islander – *Print, for example, Tongan, Fijian, Marshallese, etc.*
- ☐ Some other race – *Print race or origin.*

However, results from the 2020 Census also showed the persisting problems with two separate questions on race and ethnicity. We are confident that differences in the overall racial distributions are largely due to improvements in the design of the two separate questions, as well as some demographic changes over the past 10 years. We are also confident, as shown in our research over the past decade, that using a single combined question for race and ethnicity in the decennial census would ultimately yield an even more accurate portrait of how the U.S. population self-identifies, especially for people who self-identify as multiracial or multiethnic.

OMB Review of Race Ethnicity Standards (SPD 15)

OMB announced their formal review of SPD 15 in June 2022, with the goal of ensuring that the standards better reflect the diversity of the Nation. The Chief Statistician of the United States, Dr. Karin Orvis, and her staff organized the Federal Interagency Technical Working Group[5]

[5] Source: Information about OMB's Interagency Technical Working Group on Race and Ethnicity Standards <https://spd15revision.gov/content/spd15revision/en/about.html>.

(Working Group). OMB and the Working Group undertook a revision process similar to those used for the development and revision of other trusted statistical standards, which helps ensure the rigor, validity, objectivity, and impartiality of the resulting recommended revisions. Consistent with OMB's established process, the Working Group was composed of Federal career staff who represent programs that collect or use race and ethnicity data from over 20 agencies across the federal government, including statistical agencies, almost every Chief Financial Officers Act agency, and the Equal Employment Opportunity Commission. The agencies on the Interagency Council on Statistical Policy, i.e., the 13 Principal Statistical Agencies[6], and the 24 agencies enumerated by the Chief Financial Officers Act[7], as well as the U.S. Equal Employment Opportunity Commission – selected for its reliance on race and ethnicity data – were invited to nominate representatives to the Working Group.

The Working Group undertook the important work of developing a set of recommendations for improving the quality and usefulness of Federal race and ethnicity data. The Working Group evaluated relevant research, engaged in a meaningful way with the American public and all impacted agencies, and developed recommendations on topics including, but not limited to:

- Whether the minimum reporting categories should be changed and how to best address detailed race and ethnicity groups in SPD 15;
- Whether updates should be made to the question format, terminology, and wording of the questions, as well as the instructions for respondents and associated guidance; and
- Whether guidance for the collection and reporting of race and ethnicity data can be improved, including in instances when self-identification is not possible.

Census Bureau Leadership for Working Group

The Census Bureau worked closely with OMB, serving as the Co-Chair of the Working Group, and providing subject matter expertise and guidance for each of the teams within the Working Group based on the Census Bureau's knowledge and previous research. Census Bureau experts worked with OMB and Federal agency colleagues to provide technical support and expertise for the formal review of SPD 15. The goal of revising the standards was to improve the ability of the government to capture the diversity of the United States population, to ensure that they are keeping pace with changes in the population and evolving needs and uses for data.

Development of Initial Proposals

The Working Group reviewed existing research and evidence to develop initial proposals. For example, the Working Group reviewed what was done by the previous OMB Working Group last decade when they reviewed SPD 15, as they focused on many of the same issues that the current Working Group is tackling. Throughout, Census Bureau experts on race and ethnicity collaborated with fellow Working Group members and contributed to the discussions by presenting evidence from extensive research and engagement over the past decade, as well as data and experiences from the 2020 Census, and other sources.

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[6] For reference, a list of the 13 Principal Statistical Agencies is available online <https://nces.ed.gov/FCSM/agencies.asp>.

[7] For reference, a list of the 24 Chief Financial Officers Act Agencies is available online <https://www.cfo.gov/about-the-council/>.

The initial proposals[8] were released in January 2023 for public comment, and are summarized below:

- **Initial Proposal 1:** Collect race and ethnicity information using one combined question.
- **Initial Proposal 2:** Add "Middle Eastern or North African" (MENA) as a new minimum category.
- **Initial Proposal 3:** Require the collection of detailed race and ethnicity categories by default.
- **Initial Proposal 4:** Update Terminology in SPD 15.
- **Initial Proposal 5:** Guidance is necessary to implement SPD 15 revisions on Federal information collections.

OMB Publishes Updated SPD 15

On March 28, 2024, the U.S. Office of Management and Budget published the results of its review of Statistical Policy Directive No. 15 (SPD 15) and issued updated standards for maintaining, collecting and presenting race/ethnicity data across federal agencies.[9]
The most notable updates for the new standards are the requirement to use a combined race/ethnicity question; the addition of a new "Middle Eastern and North African" minimum reporting category; and the requirement to collect detailed race/ethnicity responses.

The Census Bureau's findings over the past decade resonate with many of the SPD 15 updates.[10] We know from our extensive research and engagement with myriad communities, organizations, scholars, researchers and data users across the country, that a combined race/ethnicity question with a dedicated Middle Eastern or North African response category and an emphasis on the collection of detailed identities for all communities will produce more accurate race/ethnicity data for our nation's population.

The updates to SPD 15 were informed by robust empirical research, extensive engagement with experts, scholars, organization leaders and communities across the country, and the successful and meaningful collaboration among federal agency leaders and experts on the Interagency

[8] For more information on the Initial Proposals for Updating OMB's Race and Ethnicity Statistical Standards, please visit <https://www.federalregister.gov/documents/2023/01/27/2023-01635/initial-proposals-for-updating-ombs-race-and-ethnicity-statistical-standards > (January 27, 2023).
Note: These proposals were preliminary and noted that they did not reflect the settled opinions of the Working Group, the position of OMB, or the positions of the agencies participating on the Working Group. The Working Group was expected to continue to deliberate, assess evidence, and take into consideration comments received from the public before making final recommendations for OMB's consideration.
[9] Source: To access OMB's Updated Race and Ethnicity Statistical Standards, please visit <https://spd15revision.gov/content/spd15revision/en.html> (March 28, 2024).
[10] This section of the paper draws from a 2024 Census Bureau blog written by the authors to discuss "What Updates to OMB's Race/Ethnicity Standards Mean for the Census Bureau." Source: <https://www.census.gov/newsroom/blogs/random-samplings/2024/04/updates-race-ethnicity-standards.html> .

Technical Working Group on Race and Ethnicity Standards. Census Bureau leaders are confident that the updated standards will improve data on race/ethnicity across U.S. Census Bureau programs, and that these new data will better represent the U.S. population's rich racial/ethnic diversity and detailed identities.

Combined Race/Ethnicity Question. The updated SPD 15 requires a combined race/ethnicity question for self-response and proxy reporting. Within this approach, respondents may report one category or report multiple categories to indicate their racial/ethnic identity. In the updated standards, a single response, such as Hispanic or Latino, is considered a complete response.

New "Middle Eastern or North African" Category. The updated SPD 15 adds a new, dedicated "Middle Eastern or North African" (MENA) category, separate and distinct from all other minimum categories. As evidenced from extensive engagement with the Middle Eastern or North African community in the United States, there is strong support for a MENA category and demonstrated need for demographic and socioeconomic statistics about the MENA population. New data will help to inform policy decisions, health research, civil rights monitoring and enforcement, and address many other needs.

Required Collection of Detailed Race/Ethnicity Data. The updated SPD 15 requires the collection of detailed race/ethnicity data beyond the minimum categories for most situations. The combined question with multiple detailed checkboxes and write-in response areas will improve the question design to facilitate the reporting of detailed race/ethnicity responses and increase the availability of disaggregated race/ethnicity data for ***all*** communities.

Question Stem and Instructions. The updated SPD 15 guidance to use the question stem, "*What is your race and/or ethnicity?*" aligns with Census Bureau research that found it is optimal to use the "race/ethnicity" terminology, rather than alternatives such as "race/origin" or "categories," for a combined question. The updated SPD 15 provides instructions to make clear that respondents may select multiple race/ethnicity groups: "*Select all that apply and enter additional details in the spaces below.*" This approach aligns with Census Bureau research that found the instructions "*Mark all that apply*" (for paper data collections) and "*Select all that apply*" (for Internet data collections) performed as well, or in some instances better than, other variations.

Question Design. The updated SPD 15 envisions that agencies, whenever possible, will collect race/ethnicity data with a question format that includes the required minimum categories disaggregated by the required detailed categories with multiple detailed checkboxes and dedicated write-in response areas, as illustrated in Figure 5. Additional question designs from the updated are shown as Figure 6 (Combined Race/Ethnicity Question with Minimum Categories and Inclusion of Detailed Example Groups) and Figure 7 (Combined Race/Ethnicity Question with Minimum Categories Only).

When an agency receives an OMB exemption from collecting detailed data using the approach with Figure 5, it may use a format that includes only the minimum categories (e.g., Figure 6 or Figure 7). When using the minimum categories only, the updated SPD 15 guidance advises that the quality of the data and consistency with other datasets may be improved by providing the respondent with examples as shown in Figure 6, and agencies should provide these examples when feasible over the example in Figure 7 without examples.

For the 2024 SPD 15 decisions, OMB concurred with the Working Group's determination that there is not sufficient evidence at this time to justify requiring a specific ordering for presentation of the minimum categories, and thus the updated SPD 15 will continue to provide agencies flexibility on how to order the response categories on information collections so that future research can inform the optimal approach to ordering response options. Although the minimum race/ethnicity reporting categories are alphabetized in the updated SPD 15 example question designs show alphabetically-ordered minimum response categories, the Census Bureau has historically ordered the categories by population size on its questionnaires.

Figure 5. Updated 2024 SPD 15 Combined Race/Ethnicity Question with Minimum Categories, Multiple Detailed Checkboxes, and Write-In Response Areas with Example Groups

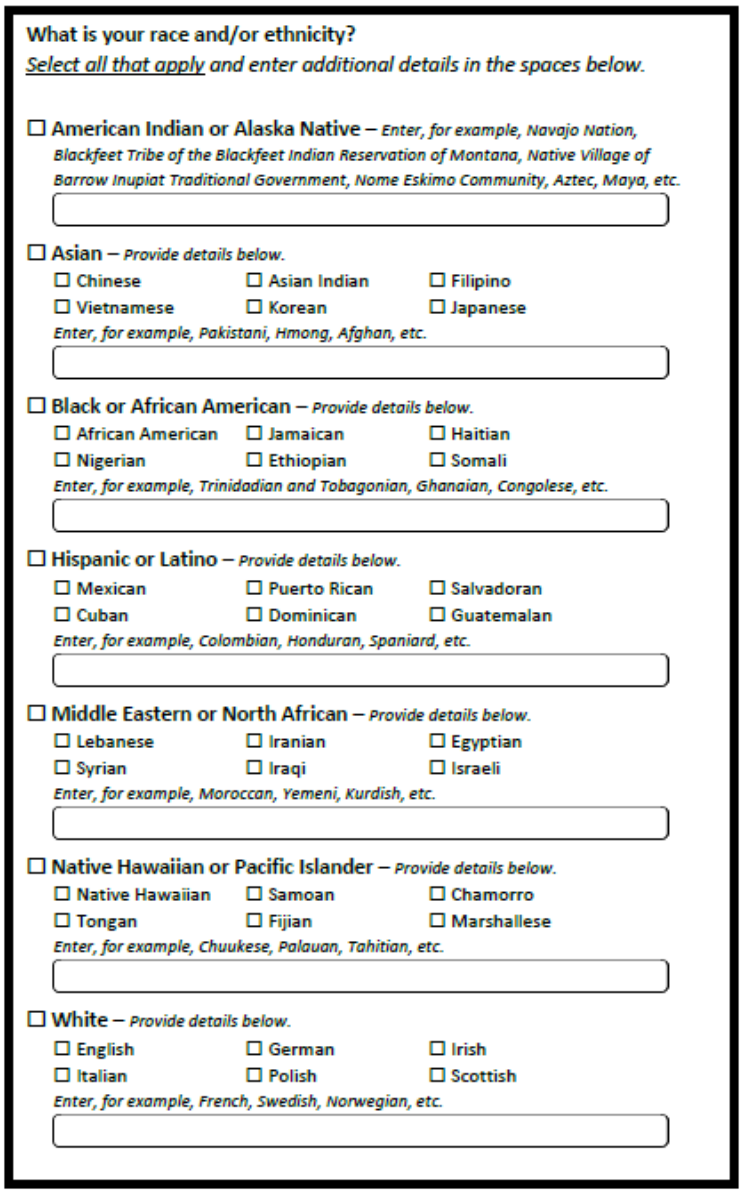


Figure 6. Updated 2024 SPD 15 Combined Race/Ethnicity Question with Minimum Categories and Inclusion of Detailed Example Groups

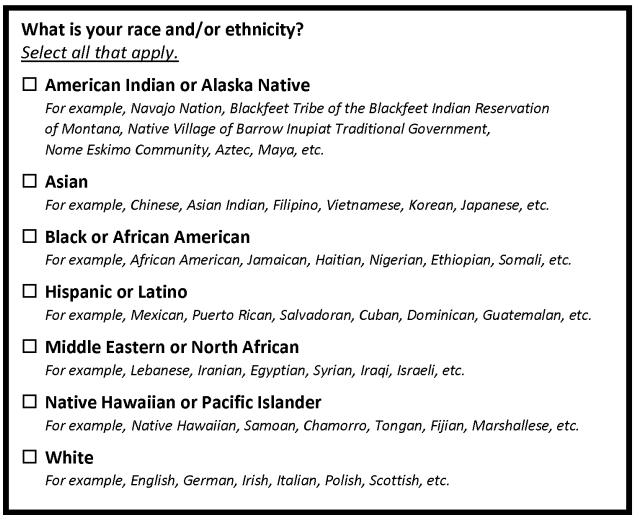
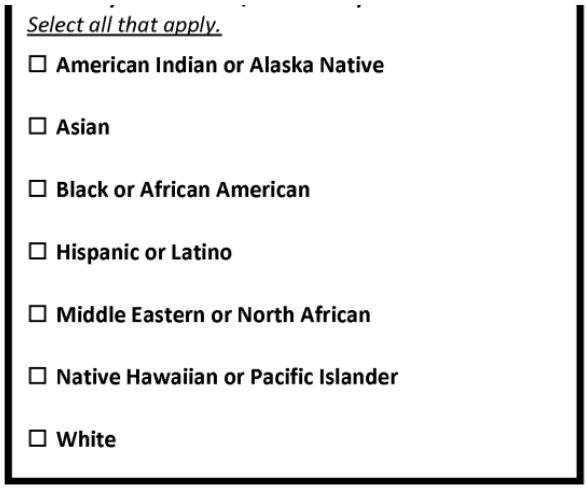


Figure 7. Updated 2024 SPD 15 Combined Race/Ethnicity Question with Minimum Categories Only



Terminology, Definitions, and Concepts. In terms of defining race and ethnicity, for the purposes of the SPD 15, the race and ethnicity categories set forth by OMB and noted to be sociopolitical constructs and not an attempt to define race and ethnicity biologically or genetically. The updated standards also aim to provide balance across the race/ethnicity definitions and to remove any outdated and offensive terminology.

The 2024 SPD 15 provides a conceptual framework of "Race and/or Ethnicity" and requires all race and/or ethnicity categories to be treated **equally** in collection and tabulation. The standards advise that respondents may select as many race and/or ethnicity options that correspond to how they identify require agencies to treat the categories equally and report them as "race and/or ethnicity" categories.

OMB's decision on this recommendation reflects the strong evidence that a combined question format results in higher quality and more useful data and provides a format that is clearer and more concise for respondents while still allowing them to select as many race and/or ethnicity options that correspond to how they identify.

The new, minimum race and/or ethnicity categories with the updated SPD 15 are:

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino
- Middle Eastern or North African
- Native Hawaiian or Pacific Islander
- White

OMB advises that with respect to collection, the seven minimum race/ethnicity categories shall be treated **co-equally** except if a program or collection effort focuses on a specific racial or ethnic group, and only as approved by OMB. Further, collection forms may not indicate to respondents that they should interpret some categories as ethnicities and others as races, or otherwise indicate conceptual differences among the minimum categories.

The revised category definitions list six example groups reflecting the largest population groups in the United States according to the 2020 Census. These revisions bring the terminology in SPD 15 more up to date and greatly increase the consistency and clarity of the minimum category definitions. While the minimum category definitions and detailed categories rely heavily on the concept of nationality, in the updated standards OMB acknowledges that nationality is one of several components that contribute to racial and ethnic identity. The updated standards are intended to facilitate individual identity to the greatest extent possible while still enabling the creation of consistent and comparable data. Table 3 presents the updated definitions for each of the minimum race/ethnicity categories as delineated in the 2024 SPD 15.

Table 3. Updated Definitions for Minimum Race/Ethnicity Categories

Minimum Race/Ethnicity Category	Definition
American Indian or Alaska Native	Individuals with origins in any of the original peoples of North, Central, and South America, including, for example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, and Maya.
Asian	Individuals with origins in any of the original peoples of Central or East Asia, Southeast Asia, or South Asia, including, for example, Chinese, Asian Indian, Filipino, Vietnamese, Korean, and Japanese.
Black or African American	Individuals with origins in any of the Black racial groups of Africa, including, for example, African American, Jamaican, Haitian, Nigerian, Ethiopian, and Somali.
Hispanic or Latino	Includes individuals of Mexican, Puerto Rican, Salvadoran, Cuban, Dominican, Guatemalan, and other Central or South American or Spanish culture or origin.
Middle Eastern or North African	Individuals with origins in any of the original peoples of the Middle East or North Africa, including, for example, Lebanese, Iranian, Egyptian, Syrian, Iraqi, and Israeli.
Native Hawaiian or Pacific Islander	Individuals with origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands, including, for example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, and Marshallese.
White	Individuals with origins in any of the original peoples of Europe, including, for example, English, German, Irish, Italian, Polish, and Scottish.

As discussed previously in the paper, it is important to note that the Census Bureau is also required by the U.S. Congress to offer the category "Some Other Race" in the American Community Survey and decennial census. Extensive Census Bureau research has shown that the use of a combined race/ethnicity question reduces the reporting of "Some Other Race" as respondents are able to find a category or multiple categories to report their racial/ethnic identity.

Tabulation Guidance. Since Census 2000, when respondents were first permitted to self-identify and select more than one race response, the Census Bureau has published data for the *race alone, race in combination*, and *race alone or in combination populations* to frame the discussion of racial composition. These concepts have been central to understanding our country's changing demographics. The updated standards encourage the reporting of as much information on race/ethnicity as possible in data tabulations, and we will continue to emphasize these important approaches for data tabulations, analyses, and discussions following the guidance of the updated standards.

Bridging Guidance

As the standards for collecting data on race and ethnicity have changed over time, there is a need for resources to harmonize categories from one format to another. When the original 1977

standards were revised in 1997 this necessitated the need for bridging the two formats. The 1977 OMB race standards included four categories: American Indian or Alaska Native, Asian or Pacific Islander, Black, and White. In 1997, SPD 15 was revised with two major changes: 1) Pacific Islander became a separate category from Asian and 2) people could select more than one race category.

In Census 2000, for the first time, respondents were allowed to report multiple race categories. While this led to more accurate information and nuanced data about the complexity of people's racial identity and the composition of the U.S. population, having multiple race responses did not map on the race data collected by other state and federal agencies, many of whom were still using the 1977 OMB standards.

In 2003, the National Center for Health Statistics (NCHS) developed a series of adjustment factors that allowed data users to "bridge" from the 1977 OMB categories with only four single-race categories to the 1997 OMB stands that included a possibility of 31 race categories (five single-race and 26 multiracial categories).

To develop the bridging factors, researchers at NCHS pooled data from the 1997 to 2000 National Health Interview Survey, which first asked respondents their race in the 1997 categories and then asked them to identify a "primary race" from the 1977 categories (Ingram et al. 2003). Next, they used logistic regression models to create the bridging factors from the 1997 to the 1977 categories. The models included covariates for demographic characteristics at the person level and contextual variables at the county level (Ingram et al. 2003, Leibler and Halpern-Manners 2008). The bridging had the biggest impact on the data for the AIAN and NHPI populations, which are the two groups with the largest proportion of multiracial individuals (Humes et al. 2011). The NCHS bridging factors have been widely used by researchers to harmonize race data from the 1997 to the 1977 OMB standards. Additionally, researchers also need to convert data from the 1977 to the 1997 OMB standards, which the U.S. Census Bureau does using a process called "reverse bridging" (Sink and Colby 2014).

As part of the release of the updated SPD 15, OMB and the Working Group developed and published a technical report and resources for bridging the 1997 SPD 15 and the 2024 SPD 15.[11] An initial, basic bridging program was released for general use on all Federal data used by Federal agencies and public data users. The tools developed by the Working Group are intended to help Federal agencies estimate and compare race/ethnicity specific statistics over time (ITWG 2024). OMB advised that agencies are not required to use these tools and may choose to use their own program data to replace or supplement the bridging tools provided here.

Complementary research and the development of more robust methodologies in the future are expected to be developed by the Federal Committee for SPD 15, which OMB established in the Summer of 2024. It is expected that bridging will be one of the key topics undertaken to provide agencies with information and guidance to assist with implementation of the updated standards. In the future, as additional data are collected under the 2024 SPD 15, the race/ethnicity bridging

[11] Source: To access OMB's Bridging Data Tools" resource website, please visit <https://spd15revision.gov/content/spd15revision/en/data-tools.html>https://spd15revision.gov/content/spd15revision/en/data-tools.html > (March 28, 2024).

programs, user guides, and test data sets will be updated with insights from research and feedback on their utility.

Conclusion and Next Steps

This paper contributes to the theme of the 2024 NBER CRIW Race, Ethnicity, and Economic Statistics for the 21st Century Conference in several ways. First, the paper provides historical context for how race and ethnicity have been measured in the decennial census. This history is not only about the population groups that were included on the decennial census form but also the groups that were not. Historical decisions on which groups to include or exclude were essentially about visibility, representation, and power.

The paper also provides an overview of the Federal government's recent review of SPD 15 and the decision-making process completed by OMB that helped determine how federal agencies will collect, tabulate, and report information on race and ethnicity in the coming years, including the 2030 Census, following the updated 2024 race/ethnicity standards.

The U.S. Census Bureau's race/ethnicity research team is thoroughly reviewing the SPD 15 updates and collaborating with colleagues across the Census Bureau to begin the development of an agency action plan to implement the updated standards within the OMB's required five-year period. The Census Bureau has communicated publicly that updates will be made as expeditiously as possible for Census Bureau data collections that include race and ethnicity, such as the American Community Survey and the 2030 Census. Throughout this process, Census Bureau leaders will engage with stakeholders and keep them posted as the Census Bureau develops implementation plans. The Census Bureau will partner with the public, stakeholders, and data users as the updated race/ethnicity standards are implemented in an effort to provide the most accurate, reliable and relevant data possible about our changing and diversifying nation.

The collaboration, research, and engagement undertaken by the Working Group, Federal agencies, and OMB is another milestone in the long history of race and ethnicity in the United States as described in this paper. This ambitious endeavor to improve standards for measuring, collecting, and tabulating data on race/ethnicity has been no small undertaking, in any sense. The potential positive impacts of the updated race/ethnicity standards will go far and wide to improve data and our understanding of the complex demographic makeup and the socioeconomic characteristics of our country's population and our myriad diverse communities.

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