

Census 2010

When Do the Census Results Get Into Arbitron Data?

By Dan Estersohn, Senior Demographer, Arbitron Inc.

The 2010 Census will be conducted in March and April of 2010; it is a snapshot of the American population by age, sex, race, Hispanic origin, marital status, households and relationships within households. This paper, the first in a series of discussions of why the Census is important to broadcasters, looks at how data from the Census Bureau are used in Arbitron's audience data. Other papers in the "Census 2010" series will cover:

- What you can do to ensure that everyone is counted in the Census,
- The American Community Survey and how it fits in with the Census and
- How the Census Bureau measures African-Americans, Hispanics, Asians and other groups.

Release of Census Counts

The first set of results (coming in December 2010) will be tallies of the total population by state. This is the count that will determine how many representatives each state will have in the 113th Congress that will be elected in November 2012. You can expect to see news reports of this in December of this year. Neither Arbitron nor our population vendor can use these data for local estimates.

A second set of results will appear in late February 2011 and March 2011. The data will be population by race and Hispanic ethnicity for Persons 0+ and for Persons 18+, without any age or sex detail. The data will be released on a state-by-state schedule and will be available

How Census Data Are Used

The U.S. Constitution specifies a Census every 10 years so that seats in the House of Representatives can be allocated by state populations. However, in our complex society, the data are also used by a wide spectrum of organizations, for example:

- States define legislative districts
- The Justice Department enforces the Voting Rights Act of 1964
- Federal programs distribute funds to local governments
- Local governments plan everything from schools to parking regulations
- Businesses identify where to find a workforce
- Retailers plan new stores
- Healthcare organizations find neighborhoods that need better access to medical care
- Demographers use them as the starting point for updating population estimates

at a county level and down to the block level (city block or equivalent). These data are required by law for revising the boundaries of legislative and voting districts.

Finally, complete age/sex counts will be released on a state-by-state basis, down to the block level, in the late spring and early summer of 2011. This last release will also include the data on marital status and household relationships.

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Creating Arbitron's Universe Estimates

Typically, Arbitron's population estimates are prepared by our vendor Claritas in May and June of each year; these data are implemented with Arbitron's Fall survey period for Diary markets and October survey period for the PPM service. Arbitron uses these estimates to plan our sample by sampling unit and to weight the final sample to the Metro population.

Our plans for transitioning to 2010 Census data are still in the works, but the Census 2000 experience offers some insight into how the transition will go this time:

- **Spring 2010:** Census operations are still being conducted; no data have been released. Claritas will create estimates based on Census 2000 and update the estimates to January 1, 2011. Arbitron will use these estimates from Fall 2010 to Summer 2011.
- **Spring 2011:** 2010 data are available for Persons aged 0+ and 18+, by race and Hispanic origin, for all Census geographies (not zip codes). Claritas will use these data as

the basis for the January 1, 2012, estimates. However, since new counts by age and sex are not yet available, updated 2000-based age/sex data will be used. The age/sex data will sum to the 2010-based total population by race and Hispanic origin estimates. This will be the first use of 2010 data, but since the estimates will be projected to 2012, the numbers will differ from the 2010 numbers.

Arbitron will use these estimates for Fall 2011, including the PPM surveys from October through Holiday.

- **Summer 2011:** With the release of complete age/sex by race and Hispanic origin counts, Claritas will update Arbitron's January 1, 2010, estimates. These will be delivered to Arbitron in the fall. **In 2002, Arbitron used the updated estimates from January through August. The exact dates will depend on a final schedule from Claritas.**

The updated data will sum to the same 0+ numbers for each county and Metro, for both the updated and original estimates. However, since there will be new age data, the 12+ and 6+ numbers may change slightly. In some cases, that could result in a small change in market rank between the two sets of estimates.

The actual Census numbers are never visible in Arbitron data. The first use of Census 2010 data will be in the preparation of January 1, 2012, population estimates.

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Arbitron Census 2010 Transition Schedule*	
Fall 2011 Diary October 2011 PPM	New total market populations. New Black/Hispanic compositions.
Winter 2012 Diary January 2012 PPM	New age/sex compositions

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What Local Broadcasters Can Do to Ensure That Everyone Is Counted

By Dan Estersohn, Senior Demographer, Arbitron Inc.

Money and power—that's what the Census means to local communities. If the Census misses people, it can affect a community's access to both.

- Census data determine how many seats each state will have in the U.S. House of Representatives. The data are also used to define congressional districts and state legislative districts. So, if people are missing from the Census, their community's voting power in the legislatures is diminished and the power of other communities is enhanced.
- In terms of money, many federal programs send money to local communities based on Census counts. Local governments use Census data for planning government services such as schools, police and fire protection and healthcare. People who are missed in the Census can impact a community's ability to get needed government services.
- The Census is also the foundation of Arbitron's population estimates, which feed the audience estimates. So Census results can impact your stations' revenues.

Are there things you can do to help members of your audience be counted? Are there any community service opportunities for your station, here? You bet!

Remember that the Census asks for only name, gender, age, race, ethnicity, relationship to other household members and whether you rent or own your home. This will be one of the shortest Census questionnaires in history; it will only take about 10 minutes for the average household to complete. By law, individual answers to the Census are confidential—they may not be released to any government agency

How People Are Missed in the Census

There are two principal ways people can be missed in the Census. The most common is when they live in "irregular housing units."

One example of this is a converted brownstone in the heart of a city. The city has authorized three apartments in the building, but the landlord has set up five. There are only three mailboxes on the street so as to hide the "illegal" units. So, the two additional apartments are invisible to the Postal Service and to most Census workers. Unapproved housing units are found in rural areas as well as inner cities.

People can also be excluded from the census if they don't have a single, permanent residence. For instance, a young man might stay with a parent occasionally, a girlfriend sometimes and with friends other times. If he has no residence of his own, and if none of these people include him as a "usual resident," he won't get counted.

Yet another example of this can be Native Americans who live on reservations and may live in different houses throughout the year, so the Census Bureau's concept of "usual residence" is not clear to them. In this case, the Census form may not get completed.

or anyone else (and there are no questions about immigration or citizenship status).

So what can you do? You can become a Census 2010 partner by registering with the Census Bureau and helping to spread

information about the Census—both on-air and at community events. Arbitron is a Census Partner, and the Census Web site also lists American Urban Radio Networks, Clear Channel Communications, Cox Enterprises, Nielsen Claritas, Radio One, Univision Communications and hundreds of other companies, community organizations and governments as partners. If you are not already a partner, you can contact your regional Census Bureau office for more information. The contact information is available at: <http://2010.census.gov/partners/pdf/censusRegionMap.pdf>.

The Census Bureau has toolkits for Census Partners at: <http://2010.census.gov/partners/toolkits/>. A toolkit for media organizations includes messaging suggestions and scripts for PSAs. There are also a variety of other toolkits, including toolkits for organizations that reach Asian communities, black communities, Latinos and immigrants.

There are local “Complete Count Committees” that you can contact to assist and publicize. For the most part, these are organizations of community leaders, including government officials. As the name implies, these groups will be working with their constituents to ensure the best possible count. The Census Bureau’s regional offices will help you identify the contacts for your local committee(s). Again, the Census Bureau’s contact information is at: <http://2010.census.gov/partners/pdf/censusRegionMap.pdf>.

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Census Recruitment in a Hard-to-Enumerate Area: a Native American Community. Sign outside the Pueblo office, San Ildefonso Pueblo, NM. October 2009. ©2009 Dan Estersohn.

Finally, the Census Bureau is hiring temporary workers in every part of the country. They are especially in need of people who are from hard-to-count areas and populations. If you serve such a population, you can help your audience (and yourself) by publicizing these opportunities. Please contact the Census Bureau’s regional office for more information.

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Navigating Race and Ethnicity in the Census: Who Is Black and Who Is Hispanic?

By Dan Estersohn, Senior Demographer, Arbitron Inc.

Like most people in sales and marketing, broadcasters know what they mean when they use terms such as “African-American,” “Hispanic” or “Asian.” However, sociologists and demographers are realizing that there are no objective definitions for these categories. People’s response to race and ethnicity questions are based upon the subculture they identify with. Often this might be the holidays they celebrate, the foods they eat or the languages they speak.

In other words, if you say you’re Hispanic, African-American or Asian, you are; if you don’t, you are not. While we may be able to come up with objective definitions based on ancestry or observable characteristics, for the Census you are who you say you are. Population estimates are built upon Census data, so this view of race and ethnicity flows into Arbitron’s audience data.

How the Census asks the questions and how Arbitron uses the results.

The first issue to note is that Hispanic is not a race—it is an ethnicity (Hispanic people are descended from any of the Spanish-speaking cultures, but they can be of any race). Many people think of Hispanic ethnicity as being equivalent to a race, such as white, black or Asian, but the federal government does not.

A sample of the Census Hispanic question is shown in Figure 1. Race is asked separately (shown in Figure 2). Since Hispanics can be of any race, everyone is asked both questions. Tests from the mid-1990s showed that if the race and Hispanic questions were combined into a single question, fewer people would answer “Hispanic.”

Like the Census, Arbitron asks separate Hispanic and race questions. Beginning in early 2010, Arbitron will also be collecting country of origin data (like that collected by the Census) for Hispanics in PPM™ markets.

For the race question, the issues of interest are that a person can be of more than one race and that there is no “Asian” category. A person can be of more than one race by noting the instruction to mark “one or more boxes.” The six reporting race categories are white, black, American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander and

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→ NOTE: Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

8. Is Person 1 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 origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↴

Figure 1. Hispanic ethnicity question in Census 2010

9. What is Person 1's race? Mark one or more boxes.

- White
- Black, African Am., or Negro
- American Indian or Alaska Native — Print name of enrolled or principal tribe. ↴

Asian Indian Japanese Native Hawaiian

Chinese Korean Guamanian or Chamorro

Filipino Vietnamese Samoan

Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↴

Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↴

Some other race — Print race. ↴

Figure 2. Race question in Census 2010

“Other.” The population that the Census Bureau reports as Asian is the total of all the people who checked one or more of the Asian groups.

Because there are also people of more than one race, the Census Bureau tabulates race three different ways. The first counts people in each race “alone” for people who marked only one of the six reporting race categories. People who marked more than one race are counted in a seventh category. This tabulation adds up to the total population.

The second method lists each combination of races separately, as well as the six “alone” categories. This method produces 63 race categories. The sum of the 63 category tabulation equals the total population.

The third method counts people who marked any one of the six categories in that category. This means that the white category includes both white alone and white in combination with other races. The same is true for black, Asian, etc. This tabulation sums to more than the total population; people who marked two races are counted twice, three races are counted three times and so on.

The three tabulations are available three ways: for total population, for non-Hispanic population and for the Hispanic population. As shown in Figure 3, that means that there are up to nine different ways to count people by race.

	Total Persons	Hispanic Origin Persons	Persons Not of Hispanic Origin
Each Race Group “Alone,” Plus a “More than One Race” Group (7 categories)	X	X	X
Each Race Group “Alone,” Plus Each Combination of “More than One Race” (63 categories)	X	X	X
Each Race Group “Alone, or in Combination with Other Races” (6 categories—sums to more than 100% of the population)	X	X	X

Figure 3. Nine ways to tabulate data on Race

Arbitron data are simpler than Census data.

We currently have only one true race category: black. In Arbitron data, black is defined as non-Hispanic black alone or in combination with other race(s). Any non-Hispanic who checked “Black, African Am. or Negro” is black, even if he or she checked additional categories as well. We also treat Hispanics as equivalent to a race. The category of “Other” is computed by subtracting black and Hispanic from the total. So we end up with three Arbitron “races,” i.e., black, Hispanic and other.

What about Hispanics who are also black? Arbitron only counts them as Hispanic—the main reason being that most Hispanics don’t identify with any of the Census race categories (many Hispanics do not even answer the race question). In 1990 and again in 2000, about 45% of Hispanics classified themselves as “Other” race.

After the Census Bureau edited and ascribed responses such as “American” or “Nigerian” or “Human Being” to the “Other” category, over 90% of the remaining “Other” responses were Hispanic. This trend still continues in more recent Census Bureau surveys.

That’s the story of dealing with race and ethnicity data in the Census and in your Arbitron reports. Easy, isn’t it?

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What You Need to Know About the American Community Survey

By Dan Estersohn, Senior Demographer, Arbitron Inc.

In the past, many Americans received the Census in two parts. The first part was the "short" or "100 percent" form. This was the familiar "headcount" for everyone in the U.S. The short form asked for age/sex/race/ethnicity and relationships within the household. The second part was the "long," or "sample," form, which was sent to about 16% of households. The long form asked additional questions about income, education, occupation, commuting, migration and housing-unit characteristics, along with other topics. However, there will be no long form in 2010.

The American Community Survey (ACS), begun in 2005, is replacing the Census long form. The ACS is an annual survey of 2.5 million households (or about 208,000 households a month) that includes the same topics as in the traditional Census long form.

The ACS should be used for *characteristics* of the population, not the *count* of population. For example, the ACS can tell you about the "percentage of people aged 25 and over who graduated college," but the "number of people who are aged 25 and over" is based on the Census Bureau's annual population estimates.



About 16 million households answered the Census 2000 long form. The ACS sample of 2.5 million households per year has a higher sampling margin of error than 2000. To keep the margin of error reasonable, the Census Bureau is releasing data in the following manner:

- Areas of less than 20,000 people (including zip codes, census tracts and block groups) have five years' worth of sample averaged together to produce the tables. The first five-year average tables will be released this fall, covering the years 2005 through 2009.
- Areas of 20,000 to 60,000 people have three-year average data as well as five-year average data. Three-year tables have already been released for 2005-2007 and 2006-2008.
- Areas of 60,000 or more people receive data from one year's sample, as well as the three-year and five-year samples. One-year data have been released regularly since 2006.

The averages are used to keep the margin of error low and to help users avoid invalid comparisons. How you should use each one depends on what you are trying to learn.

For example, let's look at Cook County, IL. This is one of the largest counties in the country (it includes the city of Chicago) and has had an annual ACS sample of about 27,500 households. If we were to look at median income in Cook County, IL, we would see that it has risen in ACS by about 3.5% a year from 2005 to 2008, which is statistically significant.

Kendall County, which is about 30 miles outside of Chicago, has a much smaller annual sample than Cook County, about 500 households. Kendall has also had annual increases in median income in the ACS, but most of these increases are smaller than the margin of error,

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so they are not significant. Income is probably rising, but it is not clear what the annual increases really are. The margin of error for the three-year estimate is much lower than that for the one-year estimate, so the user can conclude that the 2006-2008 median is really statistically significant from the 2005, 2006 or 2007 medians. Therefore, we know that Kendall County's median income is definitely rising.

The margin of error also indicates the reliability of each estimate. The three-year and five-year estimates are more reliable than the one-year estimates. That is to say that because the margin of error is lower, they are closer to the true median income than the one-year estimate. So, even for Cook County, the three-year estimate is more reliable than the one-year estimate.

It is possible that you will see people making claims and counterclaims about changes in characteristics of the population. Both sets of claims could be based on the American Community Survey. The issues of the averages and the margin of error are only two of several pitfalls that users need to consider. Other potential problems are comparability with Census 2000 and the quality of small area data below the county level. The major advantage of the ACS is more recent data. Even with its smaller sample size, the up-to-date median income estimate for Kendall County is much more useful than the 10-year-old estimate.

The Census Bureau wants to help users navigate these issues. A series of handbooks called ACS Compass Products are available for download from the Census Bureau Web site at http://www.census.gov/acs/www/UseData/Compass/handbook_def.html.

All three editions cover the same basic ground; they just look at it from slightly different perspectives. Broadcasters and advertisers will find the compass for General Users and the one for Business Users the most useful. The compass for Media is aimed at journalists and is also very useful for describing the issues.

Welcome to the new world of annual Census data!

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