

Challenging U.S. Decennial Census Data: Guidelines for the Indian Housing Block Grant Formula

U.S. Department of Housing and Urban Development
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Public reporting burden for the collection of information is estimated to average 150 hours. This includes the time for collecting, reviewing, and reporting the data. The information will be used for to allocate funds under the IHBG program. Grant Recipients provide information to correct and/or challenge data used in annual housing assistance formula allocations. Response to this request for information is required in order to receive the benefits to be derived. This agency may not collect this information, and you are not required to complete this form unless it displays a currently valid OMB control number.

This document outlines the steps HUD requires for a tribe to challenge the U.S. Decennial Census data used in the Needs component of the Indian Housing Block Grant (IHBG) formula.

As stated in 24 CFR 1000.336, “An Indian tribe, TDHE, or HUD may challenge data used in the IHBG formula. The challenge and correction of data for this purpose is an allowable cost for IHBG funds. An Indian tribe or TDHE that has data in its possession that it contends are more accurate than data contained in the U.S. Decennial Census, and the data were collected in a manner acceptable to HUD, may submit the data with proper documentation to HUD.”

In order for a Census challenge to be considered for the upcoming Fiscal Year (FY) allocation, documentation must be submitted to HUD by March 30. For example, for a Census challenge to be considered for FY 2011, it must be submitted to HUD by March 30, 2010.

Q1: What are the variables in the formula that allocate funds for housing need?

A1: The Needs component of the IHBG formula contains seven variables as defined in §1000.324. The values for these Needs component variables are based on 2000 U.S. Census sample data as adjusted by Indian Health Service (IHS) data on American Indian and Alaska Native (AIAN) births and deaths. The weights and variables used in the formula are the following:

Weight	Variable
11%	Number of AIAN persons.
13%	Number of AIAN households with incomes less than 30% of formula median income.
7%	Number of AIAN households with incomes between 30% and 50% of formula median income.
7%	Number of AIAN households with incomes between 50% and 80% of formula median income.
25%	Number of AIAN households over-crowded (more than 1.01 persons per room) and/or without complete kitchen or plumbing.
22%	Number of AIAN households with housing cost burden greater than 50 % of formula annual income.
15%	Number of AIAN households with a formula annual income up to 80% of formula median income less the number of Current Assisted Stock (CAS).

The weight indicates the relative importance of a variable. The higher the weight, the more important the variable for allocating funds.

Q2. For some tribes, the formula uses needs of multi-race AIAN persons, and for others, it uses the needs of single-race AIAN persons. In preparing a Census challenge, should the tribe submit both multi-race and single-race data?

A2: Yes, because the tribe will not know which set of data will result in a more favorable allocation until the IHBG formula is run with both sets of data and the outcomes of each run are compared. Prior to 2000, the Census required a person to choose a single racial category. Starting in 2000, a person was allowed multiple responses. For example, a person with mixed ancestry could report that they were both AIAN and Asian. Since 2006, the Appropriations Act has directed HUD to run the IHBG formula twice. Once counting the needs of all persons who report that they are AIAN, whether they say they are AIAN alone or AIAN in combination with some other race. Then again counting only the needs of persons who identify solely as AIAN. A tribe's allocation is based on the definition – either AIAN alone or the broader definition of multi-race AIAN – which provides them with a higher share of total funds.

When doing a Census challenge, it is in the best interest of a tribe to ask questions in the same way that the Census does, so that they can report new counts for both single and multi-race AIAN.

Q3: Are the Census variables based on the number of tribal members?

A3: No. The Census data used are for all AIAN households within a tribe's Formula Area. The Formula Area is identified by HUD for the IHBG program, and it may not be consistent with the tribe's Service Area as defined by other programs. The Census attempts to count all housing units and all of the persons residing in those housing units using a short questionnaire. For questions concerning income, housing condition, etc., the Census Bureau samples 1 out of every 6 housing units and uses a much longer questionnaire. For large populations, sampling is less expensive and, if done correctly, as reliable as trying to survey every household. However, because many tribal areas are relatively small in population and are quite remote, the chance of undercount and statistical error increases. Undercount occurs when the Census Bureau does not *initially* identify all of the housing units, while statistical error occurs when too small a share of households are surveyed to accurately represent the population.

Q4: What if the tribe's service area is different than the Formula Area currently identified by HUD?

A4: Service Area is a term used by other programs and may mean many different things. For allocating funds, the IHBG program relies on the term Formula Area as defined in §1000.302 Formula Area. The specific geographic units included in the tribe's Formula Area are listed on the tribe's Formula Response Form and on the tribe's Allocation and Formula Data form. Formula Area that is being used for the tribe can be corrected. Guidance for making this correction can be found in the Formula Response Form under the section titled "Formula Area."

Q5: What if the tribe's geography is correct but the Census did not count all of the AIAN persons or households in the Formula Area?

A5: A tribe may challenge the data. Any data a tribe provides to HUD to dispute the Census Bureau figures must be collected in a manner consistent with all other tribes. HUD makes the ruling on whether the data can be used. There are two options a tribe may take to challenge the data. The first option makes the case that there has been a miscount of AIAN persons in the Formula Area. This is referred to as a challenge of the population data. The second option involves challenging the household variables used in the formula. A tribe can choose to challenge both the population data and the household variables in the same Census challenge. Furthermore, a tribe can choose to challenge some or all of the household variables; however, if a tribe wants to challenge the income data, all of the low-income variables must be challenged¹ Both, the population data and household

¹ This includes the following three Needs variables: (1) number of AIAN households with incomes less than 30% of formula median income; (2) number of AIAN households with incomes between 30% and 50% of formula median income; and (3) number of AIAN households with incomes between 50% and 80% of formula median

challenges require a survey except in limited cases (refer to Questions 6, 7, and 8 below). Challenging the population data would only require the first two questions in Attachment A. Depending on which of the household variables are challenged, a survey might need to include all of the questions in Attachment A.

Q6: How does a tribe challenge the data?

A6: A tribe may challenge by providing data collected in a manner acceptable to HUD. These data may come from administrative records (see answers on Tribal Enrollment and Indian Health Service (IHS) data below), or they may come from a survey conducted by the tribe. Regardless of whether a tribe decides to challenge only the population data or some or all of the household variables, HUD's basic rules for reviewing data submitted as part of a challenge are the following:

- Questions used in the tribal survey must obtain data equivalent to the data that are collected in the 2000 U.S. Census Long Form (see Attachment A).
- The method of data collection must be unbiased, statistically valid, and acceptable to HUD.
- Census definitions for key concepts must be used (see Definition of Terms).
- A tribe must make the surveys and the database containing the survey data and calculations of the Needs variables available to HUD at the time of the Census challenge.

Q7: Will HUD accept Tribal Enrollment numbers?

A7: Yes, HUD will accept Tribal Enrollment data in lieu of the number of AIAN persons listed under the Needs Data section of the Formula Response Form in computing the IHBG formula allocation. However, these data will be accepted only if the Tribal Enrollment data are used by the tribe to disburse significant per capita payments to tribal members, and only if the count is limited to enrolled persons who are living within a tribe's Formula Area. When Tribal Enrollment is used for disbursing funds, there is a built-in incentive to update and purge records on a regular basis.

Q8: Will HUD accept Bureau of Indian Affairs (BIA) Labor Force Statistics?

A8: In most cases, HUD will not accept Total Service Area Indian Population (TRSAIP) recorded in BIA's Labor Force Report in lieu of the number of AIAN persons listed under the Needs Data section of the Formula Response Form when computing the IHBG formula allocation. The BIA labor statistics are not collected by a consistent method across the country. In order for HUD to consider BIA labor statistics in lieu of AIAN persons, a tribe would first have to submit the method that was used in collecting their BIA labor statistics. Sources of data for the Needs variables shall be data that are collected in a uniform manner that can be confirmed and verified for all AIAN households and persons living in an identified area. In most cases, BIA labor statistics come from tribal data and this often comes from tribal enrollment records. Data based upon enrollment records would only be accepted as described in the response to the previous question, "Will HUD accept Tribal Enrollment numbers?"

Q9: Will HUD accept IHS information?

A9: HUD will accept IHS records in lieu of the number of AIAN persons listed under the Needs Data section of the Formula Response Form in computing the IHBG formula allocation, but only if the IHS data are made available to HUD. Special tabulations are required that ensure each person is counted only once and that only users residing in a tribe's Formula Area are counted. These data need not include names so that the confidentiality of health records can be maintained, but they must include a unique identifier for each individual,

income.

along with information on place of residence and date that health services were last used. Only individuals who used health services within the last three years will be counted.

Q10: What if the tribe’s Formula Area currently includes land that is not part of their Reservation or Trust Lands?

A10: Tribes may have non-Indian lands as part of their Formula Areas. Most often these are “balance of counties” – that is, all the land in a county that is not reservation or tribal trust land. In accordance with 1000.302 Formula Area (B)(iv), Formula Area expansions use the smallest possible geographic unit, so some Tribes may have geographic areas defined in terms of balance of Census tracts or county subdivisions. Whenever Needs variables are challenged, a tribe may provide a single count for all households living on reservation and trust lands. For non-Indian lands, however, a tribe must provide subtotals for each separate component of their listed Formula Area.

Q11: Why would HUD challenge the data used in the IHBG formula?

A11: In order for the formula to be fair for all tribes, HUD has the authority to challenge the data so that one tribe is not receiving a disproportionate amount of funding at the expense of all other tribes. Because the formula is “zero sum,” that is, the total amount of funds available to be allocated by the formula does not change, if one tribe is getting more than its fair share, all of the other tribes are receiving less.

HUD may challenge Needs data for several reasons including but not limited to the following:

1. If a tribe’s Formula Area includes many AIAN persons who are not tribal members, HUD may ask for evidence that the tribe is willing to serve non-tribal members. If the tribe is not willing, HUD would challenge the Census data since only the Needs of tribal members would then be relevant.
2. If HUD is aware of a major change in economic circumstances since the last Census, it may challenge Needs Data. If, for example, a tribe institutes per capita payments that are large enough to move households above the income thresholds used in the formula, HUD would challenge the formula elements based on Formula Annual Income.²
3. If there is evidence that the tribe did not limit the Census challenge to AIAN persons living in the tribe’s Formula Area as identified by HUD.
4. If there is evidence that the tribe did not adhere to the definition of key terms including household and AIAN household.

Q12: How can we get help?

A12: The IHBG Formula Customer Service Center at 1-800-410-8808 can provide help in deciding whether or not a tribe should pursue a Census challenge. The Center can also provide methodological support once a decision to pursue a Census challenge has been made.

² Formula Annual Income, defined in the next section, is total household income, from all sources, for all household members.

How to Conduct a Census Challenge

While this document is intended to assist people without a background in survey research in conducting a successful survey that meets the above objectives, it is strongly recommended that a tribe try to locate a person or organization with research skills to manage the survey. Ideally this person or organization will not be affiliated with the tribe. Independent survey data collected by a professional researcher are inherently more acceptable to other tribes and to HUD. For example, if there is a local college, a professor might be persuaded to conduct the survey as part of a course. Regardless of who manages the survey, for the survey data to be accepted by HUD, the survey manager must follow the guidelines below and use the required methodology. Tribes are advised to call the IHBG Formula Customer Service Center during the planning phase.

Definition of Terms

In order to conduct a successful Census challenge, it is helpful to know several key terms and to use the same definitions of these key terms in conducting the survey. Key terms are listed below and, if not followed, will result in unsuccessful Census challenges. Please use caution when conducting a survey and ensure the following key terms are properly used.

American Indian and Alaska Native (AIAN) Household: a household where the head of household and/or spouse is an AIAN either alone or in combination with other races. This is a broader definition than what the standard Census tabulations report.

Formula Annual Income: the total income before taxes, from all sources, earned by all household (see Household definition below) members in the past year. This measure can be understood as household income. The different types of income included in the measure, as well as a few types of income that are excluded, are described in Attachment A, question 15.

Formula Median Income: income levels defined for each county in a tribe's Formula Area that are used to classify AIAN households into low-income categories. For counties outside of metropolitan areas, formula median income is set at the higher of 1) the county's median income; or, 2) the median income of the entire non-metropolitan area of the state. Median income is the value of the "middle" household income: half of the households in the county have a higher income, and half of the households have a lower income.³

The tribe does not have to compute formula median income. These data are located at <http://www.huduser.org/datasets/il.html>. Click on FY Income Limits, then click on the appropriate state in the map and open the PDF file. The three income level variables in the Needs data are based on HUD's most recent FY Income Limits. This site gives income limits by geographic area and household size. *Tribes must use local area median income, that is, the median income for the county or counties in their Formula Area or, if they are located in a larger, metropolitan area, the appropriate PMSA or MSA*⁴. For each geographic area, the tables show the thresholds that define three income categories: 30%

³ Section 567 of the Housing and Community Development Act of 1987 as referenced in §1000.302 Formula Median Income.

⁴ Primary Metropolitan Statistical Area (PMSA) code or Metropolitan Statistical Area (MSA) code in which the ZIP code lies. MSAs and PMSAs are four-digit numeric codes assigned to the 337 metropolitan geographic areas defined by the Office of Management and Budget (OMB), a part of the administrative branch of the Federal

of median income; very low income (30% - 50% of median income); and low-income (50% - 80% of median income). The income limits are specific to a given household size. Therefore, the tables show how much income households consisting of 1-8 persons, respectively, can earn in order to be included as low income in each of the three low-income categories.

In situations where a tribe's Formula Area includes more than one county, the tribe must use the median income for the county where a household is located. The tribe may not select the median income for one of the counties and use it to classify households as low income in other counties. Tribes must follow this procedure for determining the number of low-income households for the Needs Data, even if it is different than the income level they use for determining program eligibility.

Household: a person or group of persons who live in a housing unit. **Regardless of how or if the persons living in the housing unit are related, they all count as one household. For example,** a housing unit with three families residing in that unit would be counted as one household, not three households. Likewise, a housing unit consisting of a grandmother, her daughter, her daughter's boyfriend and her daughter's child would be counted as one household.

Over-crowded Households/Households Without Complete Kitchen or Plumbing: a household is counted once if it meets one or both of the following criteria:

1. Over-crowded: a household with more than 1.01 persons per room. When counting rooms, do not count bathrooms, porches, balconies, foyers, halls or half-rooms.
2. Without complete kitchen or plumbing: the unit is missing any one of the following:
 - hot and cold piped water,
 - a flush toilet,
 - a bathtub or shower,
 - a sink with piped water,
 - a range or stove,
 - a refrigerator.

A household should only be counted once if that dwelling is over-crowded and without complete kitchen or plumbing.

Severe Housing Cost Burden: households paying more than 50% of Formula Annual Income for housing costs are considered to have severe housing cost burden. This calculation is based on the above definitions of household and Formula Annual Income. Housing costs vary by housing tenure and are defined as follows:

Housing Costs for Homeowners: regular monthly mortgage payments, real estate taxes, second mortgage or home equity loan, fire, hazard and flood insurance, and utilities and fuels.

Housing Costs for Mobile Homeowners: everything listed above for homeowners plus installment loan payments, personal property taxes, site rent, registration fees and license fees for the mobile home and its site for mobile homeownership households.

Government. (See <http://www.whitehouse.gov/omb/bulletins/95-04attachintro.html>.)

Housing Costs for Condominium Owners: everything listed above for homeowners plus monthly condominium fee

Housing Costs for Renters: rent and utilities and fuels.

Housing Shortage: the total number of AIAN households with incomes less than 80% of Formula Median Income minus the tribe's Current Assisted Stock (CAS). The tribe should only submit income information on AIAN households. HUD will base the CAS counts on information in the formula database. To correct CAS information, see Appendix A of the tribe's Formula Response Form.

Distinguishing between Single- and Multi-Race AIAN

Tribes need to be able to distinguish between single- and multi-race AIAN. Single-race AIAN are persons who, when asked their race, state only that they are AIAN. Multi-race AIAN are persons who identify as being AIAN as well as some other race (e.g. black, Asian etc.)

In a Census challenge, it is important for tribes to report separate estimates for each of the challenged Needs variables by single-race and multi-race AIAN. This is because the IHBG allocation formula is calculated two times, once using single-race Needs data and once using multi-race Needs data (which includes everyone who identifies as AIAN), and each tribe's allocation is based on the higher of the two calculations. **If a tribe's Census challenge submission does not provide separate estimates for Needs variables for single race and multi-race AIAN, then the Needs data will be used only as an estimate of the multi-race Needs variables. This may be disadvantageous for tribes, particularly for those tribes whose allocation is typically based on single-race data.**

In order to submit separate Need variables estimates for single and multi-race AIAN in their Census challenge survey, tribes must distinguish between individuals who identify as AIAN alone and those who identify as AIAN in combination with one or several other races. The survey in Attachment A, question 2a, asks for the race of each person in the household. The response choices are: AIAN alone, AIAN in combination with other races, and not AIAN – other race only. In order to do separate calculations for single-race and multi-race AIAN individuals and households, tribes should have households complete question 2a for all household members. In addition, tribes need to ask question 3, race of head of household and/or spouse, and make sure to indicate whether the head of household is AIAN alone or in combination with other races.

When a tribe calculates Needs variables based on the survey data, they need to do separate calculations for households with a single-race AIAN head and for households with a multi-race AIAN head. A tribe that use Attachment C, Formula Needs Worksheet for Census Challenge, can complete two sets of worksheets, one for households headed by a single-race AIAN, and one for households headed by a multi-race AIAN.

Procedures for Conducting Household Surveys

Step 1 – Identifying AIAN Households in the Tribe’s Formula Area

To challenge the data, a tribe must first assemble a list of addresses and, if possible, telephone numbers of all households believed to be home to one or more AIAN persons in the tribe’s Formula Area as defined by HUD and shown in the tribe’s Formula Response Form. Tribes may wish to use their enrollment lists, telephone directories, and/or the post office to assemble this list. Enrollment lists or other information sources must be accurate and up-to-date. The Needs data variables are based on all AIAN households, including members of other tribes, who live in the tribe’s Formula Area. Therefore, if a tribal enrollment list is used, it can be augmented with other sources of information so that all AIAN households have the opportunity to be counted. It is important to develop the most comprehensive list of households possible within the tribe’s Formula Area. It will not be a problem if non-AIAN persons and households are included in the survey. When the data are tabulated, non-AIAN persons would not be counted for the population data challenge, and non-AIAN-headed households would not be included in counts for the income or housing variables.

This is the most important step of all in preparing a challenge to the Census data. There will be an undercount if every household to be surveyed cannot be identified. In fact, the Census Bureau spends many years before a Census attempting to assemble a complete list of addresses/locations. The more remote the area, the more difficult it is to assemble a complete list of addresses/locations. However, while the tribe wants to avoid an undercount, care must be taken to limit the list to households within the tribe’s Formula Area.

Step 2 – Deciding Whether to Enumerate or to Sample

Depending on the number of households identified in the tribe’s Formula Area, a tribe may decide to survey every household (enumerate) or just a sample of households. The purpose of sampling is to survey a portion of the population in order to make estimates about the entire population. If the proper questions are asked of a randomly drawn sample of adequate size, the degree of accuracy of overall estimates is reasonably certain. It is critical that the sample be truly random. It is especially important that there be no systematic bias. For example, a tribe cannot exclude households in remote areas or those that do not have telephones, or do anything that might over- or under-represent any income or other known group in the population.

Most Census challenges to date have been based on surveys of all identified AIAN persons, in other words, on enumerations. HUD has directly substituted the tallies from the tribal surveys for the Census counts. If a tribe is asking HUD to use actual tallies from the survey, HUD will not worry about response rates or response bias, since no claim is being made that survey respondents are representative of a larger population.

For some tribes, however, this approach may not be realistic. HUD will consider challenges based on surveys of a sample of people living in the Formula Area. However, for these challenges to be approved, rigorous adherence to scientific sampling is required.

Step 3 – Deciding on the Sample Size

In deciding on the size of the sample, a tribe should anticipate a certain degree of non-response. The highest level of non-response generally considered to be acceptable is 30 percent, **so a tribe needs to achieve at least a 70 percent response rate.** Therefore, a tribe that wants, for example, 800 completed surveys should actually draw a sample of at least 1,143 households (800 divided by .70). In this case, a 70 percent response rate would net 800 completed surveys.

As described below, tribes should plan to make repeat attempts to contact each household in the sample in order to maximize response. All tribes should complete surveys with at least 70 percent of sampled households. The higher the response rate, the more confidence that survey results are representative of all households in the tribe's Formula Area. It is preferable to put resources into getting a higher response rate from a somewhat smaller sample rather than a lower response rate from a larger sample, because the data in the first case would be more accurate.

Tribes with 575 or More AIAN Households in Its Formula Area: In addition to achieving a 70 percent response rate, these tribes need to complete surveys with at least 400 households. For 400 completed surveys, the margin of error is +/-5 percent, which means that results could vary by 5 percent in either direction due to sampling error. This level of error is reasonable for estimating the Needs variables. With fewer completed surveys, the margin of error is considerably larger. With more completed surveys, the margin of error decreases very slowly.

Tribes with at least 575 households can randomly sample households in their Formula Area, provided at least 400 surveys are completed and they achieve a 70 percent response rate. For example, if a tribe has 3,000 households, it could sample every fifth household. With a 70 percent response rate, a sample of 600 households would net 420 completed surveys.

Tribes with Fewer than 575 AIAN Households in their Formula Area: These tribes should attempt to contact all households in their Formula Area. If resources do not permit, they should attempt to contact a random sample of as many households as they can and achieve at least a 70 percent response rate.

All tribes need a high response rate: 70%

Tribes with fewer than 575 households should attempt to contact all households.

Tribes with 575 or more households may choose to select a random sample of households. However, they need to complete surveys with at least 400 households.

If a tribe completes surveys with 70 percent or more of the households in its sample, assuming that all other criteria are met, HUD will extrapolate the data to the entire population, provided: 1) the initial listing of households is representative of all households in the tribe's Formula Area, and 2) the tribe demonstrates that it used rigorous scientific sampling.

If a tribe completes surveys with less than 70 percent of sampled households, assuming that all other criteria are met, HUD will use the data the tribe collects as the Needs data, but will not extrapolate the data to the entire population unless the tribe can demonstrate that there is no response bias.

Step 4 – Drawing a Random Sample

If a tribe decides that there are too many households in the Formula Area to attempt to survey all of them, the tribe should draw a random sample. This ensures that everyone who is in the group has a known, typically equal, chance of being included in the sample.

The easiest way to select a random sample is to use systematic sampling. The sampling frame must consist of households, not individuals, since the Needs variables are based on AIAN households. All households should be listed, but no household should be listed more than once. The list should not be ordered in any way that is related to the Needs variables. For example, the list should not be ordered based on how much assistance the household is receiving from the tribe. The tribe should describe how the households are listed, to provide documentation that the sampling is random.

To draw a systematic sample, determine the sampling interval by dividing the number of households by the desired sample size. For example, if the list is of 3,000 households and a sample of 1,000 households is desired, the sampling interval would be $3,000/1,000$, or three. That means every third household on the list would be chosen.

An alternative method relies on random numbers. In this instance, the tribe assigns a number to each household on the full list. Then, using a random number table (which can be found in most statistics textbooks) or using the random number function in a spreadsheet program, the sample is selected.

Step 5 – Selecting the Type of Survey

The most commonly used surveys are: (a) telephone surveys, (b) door-to-door surveys, and (c) mail or drop-off surveys. Both telephone and door-to-door surveys involve interviewers. Mail or drop-off surveys are self-administered. That is, the respondent completes the survey on his or her own. Surveys conducted by interviewers have several advantages over self-administered surveys. First, interviews are better than self-administered surveys for dealing with complicated issues and for asking complex or confusing questions. The respondent's interaction with the interviewer permits clarification of questions when respondents do not understand them, thus enhancing the accuracy of response. Second, because interviewers receive training, interviews are a better method for administering surveys that contain skip patterns, questions that apply to only some respondents. Third, some persons may have difficulty with a written survey. Fourth, particularly in the case of in-person interviews, the interviewer can establish rapport with the person being interviewed. This may increase the number of completed surveys. Overall, using an interviewer increases the likelihood that quality data are collected.

Mail and drop-off surveys can be done anonymously; surveys can be returned with nothing that identifies the household. In order to track response, respondents can be given a postcard which they return at the same time that they return their completed survey. With this procedure, the survey manager knows which households have responded and which need follow-up contacts, but actual responses are not tied to any individual or household. However, mail or drop-off surveys usually have a low response rate even with repeated follow-ups, and may yield inadequate data that need to be discarded. Given the complexity of the survey instrument and the likelihood that persons may need help in completing the survey, mail or drop-off surveys are not recommended.

Telephone and in-person interviews cannot be anonymous because the interviewers know the persons that they have contacted. However, they can be confidential. The interviewers should emphasize to respondents that their answers will be kept confidential. They should emphasize that the interviewer and anyone else associated with the survey will not reveal the answers of any individual. People are more likely to give honest answers, especially to sensitive questions about topics such as income, if they are assured that their responses will not be revealed. Interviewers and everyone else associated with the survey effort must maintain this confidentiality. Usually, the respondent's name, address, and telephone number appear only on a cover sheet. After the interviewer has completed the in-person or telephone interview, the cover sheet can be separated from the actual survey. If both the cover sheets and the questionnaires are numbered, they can be matched if absolutely necessary. In addition, the survey manager can track which households completed interviews and

which households need follow-up contacts. What is important is that people will not just be able to pick up a questionnaire and see their neighbor's household income.

Of course, it is possible, and often quite useful, to combine several types of surveys. For example, if in a door-to-door survey someone is not home, the interviewer can leave a note for the resident to call the researchers and schedule a time when he or she will be available to be interviewed, either in-person or by telephone. Alternatively, the telephone can be used to schedule a time when an interviewer will visit the household to conduct an interview, or the interview can be conducted over the telephone when the resident is reached. Or, a letter can be sent to residents of the target area to let them know in advance when an interviewer will call or visit.

Step 6 – Developing the Survey Instrument

After deciding on the survey method, the survey instrument should be developed. Attachment A of this document includes the list of questions needed to challenge the data used in the IHBG formula. It is important that all of the individuals surveyed are asked exactly the same questions and that their responses are recorded correctly. Each question should be clear, written in simple language, and convey only one meaning. Given the importance of asking the correct questions, it is strongly recommended that tribes use the questions listed in Attachment A. Please note that Attachment A was written assuming that the survey would be administered by an interviewer. If it is intended to be self administered, additional instructions may be required.

The table below shows which questions need to be included in a challenge of each Needs component variable.

Matrix of Questions in Attachment A Needed to Challenge Each Needs Component Variable															
Needs Component Variables	Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
# AIAN Persons	X	X													
# AIAN households income < 30% Formula Median Income	X	X	X												X
# AIAN households income 30%-50% Formula Median Income	X	X	X												X
# AIAN households income 50%-80% Formula Median Income	X	X	X												X
# AIAN households over-crowded or without complete kitchen or plumbing	X	X	X	X	X	X									
# AIAN households paying more than 50% of Formula Annual Income for housing costs	X	X	X				X	X	X	X	X	X	X	X	X

As part of its preparation for the survey, the tribe should develop an introduction to the actual interview. This should be a standard introduction that identifies the purpose of the survey and why it is important to respond. It is also a good idea to note the expected amount of time it will take to complete the survey.

For IHBG formula purposes, only AIAN-headed households can be included in the Needs variables identifying low-income households, over-crowded households, and households with severe housing cost burden. However, if the tribe wishes to use survey data for other purposes, the tribe probably wants to ask everyone in the sample to complete the survey, including non-AIAN-headed households, since such households may include AIAN individuals.

Step 7 – Conducting the Survey

To carry out the survey, the tribe has to photocopy a sufficient number of questionnaires, recruit and train interviewers or develop a system for mailing out surveys, follow-up with non-respondents, and develop procedures for editing and tabulating the data.

Publicity. To promote participation in the survey, it may prove worthwhile to arrange some advance notice. A notice in a local newspaper or announcements at a tribal meeting can let people living in the tribe's Formula Area know that a survey is being conducted. In addition, the tribe might send a letter to all the households in the sample to let them know they will be asked to participate in a survey. People are more likely to cooperate if informed in advance how and when they will be contacted, and why it is important to the tribe that they participate.

Recruiting and Training Interviewers. It is best to choose interviewers who make the respondents feel comfortable. This will enhance response as well as increase the likelihood that respondents answer questions accurately. When interviewers have similar cultural backgrounds as the respondent, the survey usually generates a better response rate and more accurate results. What is most important, though, is that the interviewer commands the attention of the respondent, asks the questions exactly as they are written, carefully follows respondent selection procedures, and accurately records the responses as given.

Interviewers for telephone and in-person surveys must be thoroughly trained before they go into the field. Anyone who is willing to follow the established procedures can serve as an interviewer so long as they are trained. Prior to beginning the regular interviews, supervisors should bring the interviewers together for one or more training sessions. Interviewer training should include training in the following:

- The purpose of the survey and why it is important for respondents to participate.
- How to encourage respondents to participate.
- The definition of critical terms including AIAN household, household, and Formula Annual Income, with an understanding of how to apply these terms. For example, an interviewer must understand how to count the number of persons living in a residence, and who and what to include when determining Formula Annual Income.
- The Needs variables, including the way each variable is measured and the survey questions that comprise each measure. This will enable interviewers to help respondents provide accurate information.
- The protocol for contacting respondents including number and timing of attempts.
- Reading the survey aloud until they are comfortable with the instrument, are able to read all the questions quickly and smoothly, are familiar with all the interviewer instructions, and are able to determine which questions apply to which respondents.
- Learning how to read questions in a neutral fashion and how to interact with respondents in a way that does not bias the results.
- Learning how to listen to responses and to record answers correctly.

- Learning how to ask follow-up or probe questions if the respondent fails to answer the question or gives a response that is unrelated to the question that has been asked or that is clearly not accurate.
- Learning how to review each survey immediately after completing it to verify that all items are complete, correct and legible.
- Practicing conducting interviews with the survey manager and with each other.

Response Protocol. The response protocol determines who in the household should be interviewed, as well as procedures for contacting households.

The interviewer first has to determine that the person being interviewed is knowledgeable and competent to answer the questions being asked. The interviewer should ask to speak to the head of the household or the spouse of the head of the household. This is especially important if the tribe is challenging all Needs variables and asking income-related questions. If the survey is limited to household occupants and housing characteristics, the protocol may allow the interviewer to speak to other resident adults or children of at least high school age.

Interviewers should attempt to contact respondents at a time when they are most likely to get a high rate of response from most types of people. In general, the tribe will know best when community members can be reached. It is recommended that interviewers follow set procedures regarding the number of times they will attempt to reach each household before it is considered “unreachable” and how contact attempts are recorded. Avoid selecting a time or method that will yield biased results. For example, conducting most of the interviews during school breaks may cause many of the households with children to be missed, and conducting the majority of interviews during the day will cause employed persons to be missed.

Since it is extremely important to maximize response, it is recommended that interviewers make at least five or six attempts to reach each household in a telephone survey, and at least three or four attempts to complete an in-person interview. Likewise, it is best if interviewers call or visit on at least three or four different days and at different times of day. For example, the day can be divided into three time periods – morning, afternoon and evening – and interviewers can make several attempts to complete the interview at each time of day. Interviewers should make some calls or visits on weekends as well as on weekdays.

Follow-Up. With mail/drop-off surveys, reminder cards should be sent to each household soon after they receive the survey indicating the importance of the information. If they do not respond within 10 to 15 days, a second survey should be sent/dropped off. If they still do not respond, do a third mailing/drop off. With each additional attempt to reach a household, some response can be expected. It is critical to send/drop-off another survey because they might have disposed of or lost the original. If there is still no response after a third mail or drop-off attempt, a telephone interview should be attempted or an in-person interviewer should be sent.

Last Resort Information Collection Procedure. The survey manager can establish a procedure for collecting information when individuals are unavailable. This procedure is called collecting last resort information. The survey manager may introduce a rule for getting information about occupied dwellings when it is impossible to get answers directly from the residents. Imagine that there is a dwelling that is known to be occupied. Either the residents refuse to speak with any interviewer, no one is found at home after a series of six calls or visits, or they fail to return a survey after three or four follow-up mailings. As discussed earlier, if residents don’t return a mail survey, a telephone or in-person follow-up can be attempted, and if they are never home, try reaching them by telephone. If they still cannot be reached, the interviewer or survey manager can ask a neighbor or a family member who does not live in the household for some minimal information about the residents such as how many individuals live there and if they are AIAN. Do not ask the knowledgeable person any questions about income. When an interview is conducted with someone other than the household head or

spouse, the interviewer should document who they interviewed on the survey (e.g., another household member, a neighbor, a family member who does not live in the household, etc.) as well as how many AIAN persons and households were counted through this last resort data collection method. This method can only be used to determine the AIAN population count and to estimate the number of AIAN households in the Formula Area. It cannot be used to determine or estimate the number of AIAN households in each of the low-income categories or to determine the number of AIAN households facing a severe housing cost burden. However, external informants may be able to report on households lacking plumbing.

The Interview. Interviewers should read the questions exactly as they are written. If the respondent does not understand the question or gives an inadequate answer, it usually is best to have the interviewer pause and wait expectantly for more information or to just repeat the question. Questions should be read in the order in which they are written. Interviewer should never prompt or encourage respondents to give any particular answer, and they should never act as if some responses are more or less appropriate or acceptable.

The respondents' answers should be recorded neatly and accurately immediately as they are provided. At the end of each interview, and before proceeding to the next interview, the interviewer should always review the questionnaire to be sure that he/she had entered every answer correctly. This simple check helps to avoid the frustrating mistake of having gone to the time and expense of conducting the interview, but without getting the information sought. When completing an in-person interview, the interviewer should ask for the respondent's telephone number. This way, if there is a problem with any of the responses, the interviewer or survey manager can contact the respondent by telephone to clarify the data. While responses to an in-person or telephone interview cannot be anonymous, the interviewer can assure the respondent that his or her answers will be kept confidential. The interviewer can tell respondents that their responses will be grouped and reported as a total, and that no individual's responses will ever be connected to him or her.

Editing. The completed surveys should be provided to the person who will tabulate and analyze them. That person should review each survey to ensure that it is complete, that each question is answered once and only once in a way that is clear and unambiguous, and that the data are consistent and complete. For example, a respondent might say that his or her household pays \$1,000 mortgage each month, but then report that the household has no income. In this case, the interviewer should try to learn how the household gets the money to pay the mortgage.

If the survey is conducted in-person or by telephone, unclear responses may be resolved by the interviewer. It also may be desirable to call the respondent back, if necessary, to clarify incomplete or ambiguous responses. Note that editing is an ongoing process. Even after starting to tabulate or analyze the data, errors or inconsistencies may be discovered that need to be corrected.

Step 8 – Analyzing the Data

After the data have been collected and edited, the numbers need to be added to see what has been learned. Specifically, it is necessary to tabulate the responses from the questionnaires and calculate the information needed for the formula. This can be accomplished by completing the worksheets provided in Attachment C. Be sure to assign each completed survey a unique survey identification number. This will allow you to check and correct any inconsistencies or other data problems that may arise when the data are analyzed.

Tabulation. For ease of processing, it is important to enter the responses onto a computer, if one is available. A database program such as Microsoft Access® or a spreadsheet program such as Microsoft Excel® would work fine.

References. Fowler, F.J. *Survey Research Methods, Third Edition.* Thousand Oaks, CA: Sage, 2002, is a clearly written book that may be helpful. Sage Publications can be contacted at:

Sage Publications, Inc.
2455 Teller Road
Thousand Oaks, CA 91320
e-mail: order@sagepub.com
Web: www.sagepub.com

Babbie, Earl. *The Practice of Social Research, Tenth Edition.* Belmont, CA: Wadsworth Publishing Company, 2004. This is a basic textbook on research methods, and it includes easy to understand discussions of sampling, survey design, data collection, data entry and data analysis.

Please note that these books and others that are similar may be available in a local public or university library.

Step 9 – Preparing the Submission for HUD

In order to be considered for a Census challenge based on survey data, a tribe must submit the information outlined below.

1. The name, organization, and phone number for the person(s) who managed the survey.
2. The source(s) of data for the addresses in the Formula Area and how the list used is ordered.
3. The actual addresses surveyed, the geographic areas of the addresses (by balance of county, reservation, and/or trust land), and the number of addresses you identified in each of these areas. Include a map or maps of the geographic area being surveyed. Maps are available from http://ftp2.census.gov/plmap/pl_blk/ web site or equivalent. The tribe must provide evidence that all of the addresses are within the tribe's Formula Area as defined by HUD and shown in the tribe's most recent FY Formula Response Form or Allocation and Formula Data form. If you believe that the tribe's current Formula Area is incorrect, please refer to Question 3 on page 2.
4. If applicable, the number of households sampled in each geographic area and the number of households identified as AIAN, if known. If the tribe uses a sample, it must specify how the sample was selected.
5. The number of AIAN-headed and non-AIAN-headed households responding in each geographic area.
6. Documentation that the tribe used the appropriate definitions as described in the section, Definition of Terms beginning on page 6.
7. A copy of the questionnaire used. (It is strongly recommended that the tribe use the survey provided in Attachment A.)
8. An explanation of the survey method(s) including information on the following:
 - a. Type of survey – telephone, in-person, mail, or some combination.
 - b. Number of repeat attempts before dropping a household from the sample.
 - c. Description of recruitment and training provided for interviewers.

- d. Description of quality checks performed to assure the accuracy of the data collected.
9. The Formula Median Income for each geographic area (typically counties) in the tribe's Formula Area and the source used to obtain median income. In determining the number of AIAN households falling into each income category, income limits designated by HUD for the size of each household must be used (see Definition of Terms, "Formula Median Income"). If a tribe's Formula Area includes more than one county or geographic area, the tribe must apply the formula median income limits for each county or geographic area.
10. Send HUD a table with the results. State clearly which Needs variables are being challenged and provide the tabulations for each of the following in the table:
 - a. Number of AIAN persons
 - b. Number of AIAN households with incomes less than 30% of Formula Median Income.
 - c. Number of AIAN households with incomes between 30% and 50% of Formula Median Income.
 - d. Number of AIAN households with incomes between 50% and 80% of Formula Median Income.
 - e. Number of AIAN households that are over-crowded (more than 1.01 persons per room) and/or without complete kitchen or plumbing.
 - f. Number of AIAN households paying more than 50 % of their Formula Annual Income for housing costs.

It is strongly recommended that a tribe submit the above data separately for individuals (a) and households (b-f) that are single-race AIAN and multi-race AIAN. This will permit HUD to run the formula allocation twice, once with single-race and once with multi-race Needs data, and base tribes' allocations on the higher of the two estimates.

11. **Tribes must make the surveys, the database containing the survey data, and all of the calculations of the Needs variables available to HUD at the time of the Census challenge.**

All challenges should be sent to:

IHBG Formula Customer Service Center
1025 Connecticut Ave, Suite 905
Washington, D.C. 20036
Toll Free: 800-410-8808
FAX: 202-393-6411
E-mail: IHBGformula@firstpic.org

ATTACHMENT A: Survey Questions

____ Survey ID

1. How many people are living or staying in this house, apartment or mobile home today?

Count the total number of persons who usually live here, whether they are members of the same or different families. For example, a housing unit with three families residing in it is counted as one household, NOT three.

INCLUDE in this number:

- Foster children, roomers, or housemates
- People staying here today who have no other permanent place to stay
- People living here most of the time while working, even if they have another place to live
- Persons who are temporarily away on a business trip, on vacation, etc.
- Children in boarding schools below the college level

DO NOT INCLUDE in this number:

- College students living away while attending college
- People currently in a correctional facility, nursing home, or mental hospital
- Persons in the Armed Forces who live somewhere else
- People who live or stay at another place most of the time

_____ **Total number of persons**

2a. What is the race of EACH person indicated above? Please tell us if each household member identifies themselves as American Indian or Alaska Native, that is, AIAN either alone or in combination with other races? Other races include: White; Black, African American or Negro; Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Other Asian; Native Hawaiian; Guamanian or Chamorro; Samoan; other Pacific Islander; or some other race.

Persons in Household	AIAN Alone	AIAN in combination with other races	NOT AIAN – other race only
<i>Check ONE response for each person in household.</i>			
Person 1			
Person 2			
Person 3			
Person 4			
Person 5			
Person 6			
Person 6			
Person 7			
Person 8			
Person 9			
Person 10			

2b. How many of the people living in your household are enrolled members of [Tribe name]?

_____ **Number of enrolled members of this tribe**

3. Does the head of household and/or their spouse identify themselves as an AIAN person either alone or in combination with other races? The “head of household” is the person in whose name this house or apartment is owned, being bought, or rented. Check “YES” if EITHER the head of household or his/her spouse is AIAN either alone or in combination with other races. **Other races include: White; Black, African American or Negro; Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Other Asian; Native Hawaiian; Guamanian or Chamorro; Samoan; other Pacific Islander; or some other race.**

- YES, AIAN alone
- YES, AIAN in combination with other races
- NO

4. How many rooms do you have in THIS house, apartment, or mobile home? In addition to bedrooms, count all whole rooms used for living purposes such as living rooms, dining rooms, kitchens, recreation rooms, rooms in a finished basement, enclosed porches that can be used year-round, lodger’s rooms and any other finished rooms. DO NOT count bathrooms, unenclosed porches, balconies, foyers, halls or half-rooms.

_____ Total Number of Rooms

5. Do you have COMPLETE plumbing facilities in THIS house, apartment, or mobile home; that is, a) hot and cold piped water, b) a flush toilet, and c) a bathtub or shower?

- YES, have all three facilities
- NO

6. Do you have COMPLETE kitchen facilities in THIS house, apartment, or mobile home; that is a) a sink with piped water, b) a range or stove, and c) a refrigerator?

- YES, have all three facilities
- NO

7. What are the ANNUAL costs of utilities and fuels for THIS house, apartment, or mobile home? If you have lived here less than one year, estimate the annual cost.

a. Electricity

\$ _____ Annual Cost – Dollars

OR

- Included in rent or in condominium fee
- No charge or electricity not used

b. Gas

\$ _____ Annual Cost – Dollars

OR

- Included in rent or in condominium fee
- No charge or gas not used

c. Water and sewer

\$_____ Annual Cost – Dollars

OR

_____ Included in rent or in condominium fee

_____ No charge

d. Oil, coal, kerosene, wood, etc.

\$_____ Annual Cost – Dollars

OR

_____ Included in rent or in condominium fee

_____ No charge or these fuels not used

Answer question 8 only if you pay rent for THIS house, apartment or mobile home. All others skip to question 9a.

8. What is the monthly rent?

\$_____ Monthly Amount in Dollars

Answer questions 9a to 9d if you or someone in this household owns or is buying THIS house, apartment or mobile home. Otherwise skip to question 15.

9a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on THIS property?

___ YES, mortgage, deed of trust or similar debt

___ YES, contract to purchase

___ NO – *Skip to question 10a*

9b. How much is your regular monthly mortgage payment on THIS property? Include payment only on first mortgage or contract to purchase.

\$_____ Monthly Amount – Dollars

OR

___ No regular payment required – *Skip to question 10a*

9c. Does your regular monthly mortgage payment include payment for real estate taxes on THIS property?

_____ YES, taxes included in mortgage payment

_____ NO, taxes paid separately or taxes not required

9d. Does your regular monthly mortgage payment include payment for fire, hazard, or flood insurance on THIS property?

- YES, insurance included in mortgage payment
- NO, insurance paid separately or no insurance

10a. Do you have a second mortgage or a home equity loan on THIS property? Mark all that apply.

- YES, a second mortgage
- YES, a home equity loan
- NO – *Skip to question 11*

10b. How much is your regular monthly mortgage payment on all second or junior mortgages and all home equity loans on THIS property?

\$_____ Monthly Amount – Dollars

OR

No regular payment required

11. What were the real estate taxes on THIS property last year?

\$_____ Yearly Amount – Dollars

OR

None

12. What was the annual payment for fire, hazard, and flood insurance on THIS property?

\$_____ Annual Amount – Dollars

OR

None

Answer question 13 only if this is a condominium.

13. What is the monthly condominium fee?

\$_____ Monthly Amount – Dollars

Answer questions 14a and 14b only if this is a mobile home.

14a. Do you have an installment loan or contract on THIS mobile home?

- YES
- NO – *Skip to question 15*

14b. What was the total cost for installment loan payments, personal property taxes, site rent, registration fees, and license fees for THIS mobile home and its site last year? Exclude real estate taxes.

\$ _____ Yearly Amount – Dollars

ASK EVERYONE QUESTIONS 15, 16 AND 17.

15. What was this household's total income last year, before taxes, for each of the following? Please remember to include the income from all household members.

a. All wages, salary, commissions, bonuses, or tips from all jobs. Please report the amount before deductions for taxes, bonds, dues or other items.

\$ _____ Annual Amount – Dollars

OR

___ None

b. Self-employment income from own farm or non-farm businesses, including proprietorships and partnerships. Please report for anyone in the household. Report NET income after business expenses.

\$ _____ Annual Amount – Dollars

OR

___ None

c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.

\$ _____ Annual Amount – Dollars

OR

___ None

d. Social Security or Railroad Retirement.

\$ _____ Annual Amount – Dollars

OR

___ None

e. Supplemental Security Income, also known as SSI.

\$ _____ Annual Amount – Dollars

OR

None

f. Any public assistance or welfare payments from the state, local or tribal welfare office.

\$ _____ Annual Amount – Dollars

OR

None

g. Any other sources of income received regularly such as Veteran (VA) payments, unemployment compensation, child support or alimony. Please report for all household members. DO NOT include lump sum payments such as money from an inheritance or sale of a home.

\$ _____ Annual Amount – Dollars

OR

None

h. Any per capita payments received by any household members.

\$ _____ Annual Amount – Dollars

OR

None

NOTE: A tribe may substitute a question that asks for total household income from all sources before taxes: “What was this household’s total income last year, before taxes, from all sources?” Please be sure to include all sources of income for all household members. The question must list all sources of income from questions 15a-h above.

16. Where is this residence located?

On reservation or trust land

Off reservation

17. In what county is this residence located?

(County name)

**ATTACHMENT B: U.S. Census Bureau Government
Specialists for Tribal Programs**

Atlanta Regional Office
101 Marietta St. NW, Ste. 3200
Atlanta, GA 30303-2700
Phone: (404) 730-3832 or 1-800-424-6974
FAX: (404) 730-3835
TDD: (404) 730-3964
E-mail: atlanta.regional.office@census.gov

Boston Regional Office
4 Copley Pl., Ste. 301
Boston, MA 02117-9108
Phone: (617) 424-4501 or 1-800-562-5721
FAX: (617) 424-0547
TDD: (617) 424-0565
E-mail: boston.regional.office@census.gov

Charlotte Regional Office
901 Center Park Dr., Ste. 106
Charlotte, NC 28217-2935
Phone: (704) 424-6400 or 1-800-331-7360
Fax: (704) 344-6444
TDD: (704) 344-6114
E-mail: charlotte.regional.office@census.gov

Chicago Regional Office
1111 W. 22nd Street, Suite 400
Oak Brook, IL 60523-1918
(630) 288-9200 or 1-800-865-6384
FAX: (630) 288-9288
TDD: (708) 562-1791
E-mail: Chicago.Regional.Office@census.gov

Dallas Regional Office
8585 N. Stemmons Fwy., Ste. 800 S
Dallas, TX 75247-3836
Phone: (214) 253-4400 or 1-800-835-9752
FAX: (214) 655-5362
TDD: (214) 655-5363
E-mail: dallas.regional.office@census.gov

Denver Regional Office
6900 W. Jefferson Ave., Ste. 100
Lakewood, CO 80235-2032
Phone: (303) 264-0202 or 1-800-852-6159
FAX: (303) 969-6777
TDD: (303) 969-6767
E-mail: denver.regional.office@census.gov

Detroit Regional Office
1395 Brewery Park Blvd.
Detroit, MI 48207
Phone: (313) 259-1158 or 1-800-432-1495
Fax: (313) 259-5045
TDD: (313) 259-5169
E-mail: detroit.regional.office@census.gov

Kansas Regional Office
1211 North 8th St.
Kansas City, KS 66101-2129
Phone: (913) 551-6728 or 1-800-728-4748
FAX: (913) 551-6789
TDD: (913) 551-5839
E-mail: KC.Regional.Office@census.gov

Los Angeles Regional Office
15350 Sherman Way, Suite 300
Van Nuys, CA. 91406-4224
Phone: (818) 904-6393 or 1-800-992-3530
Fax: (818) 904-6427
TDD: (818) 904-6249
E-mail: la.regional.office@census.gov

New York Regional Office
395 Hudson St., Ste. 800
New York, NY 10014
Phone: (212) 584-3400 or 1-800-991-2520
Fax: (212) 478-4800
TDD: (212) 478-4793
E-mail: new.york.regional.office@census.gov

Philadelphia Regional Office
833 Chestnut St., Ste. 504
Philadelphia, PA 19107
Phone: (215) 717-1800 or 1-800-262-4236
FAX: (215) 717-0755
TDD: (215) 717-0894
E-mail:philadelphia.regional.office@census.gov

Seattle Regional Office
601 Union Street, Suite 3800
Seattle, WA 98101-1074
(206) 381-6200 or 1-800-233-3308
FAX: (206) 381-6310
TDD: (206) 381-6318

AIAN Data and Links:

<http://factfinder.census.gov/home/aian/index.html>

<http://factfinder.census.gov/home/aian/index.html>

ATTACHMENT C: Formula Needs Worksheet for Census Challenge

Note: This worksheet is intended to be used with the survey in Attachment A. Please refer to the table on page 13 to determine which calculations the tribe should complete.

In general, it is best to use a computer spreadsheet or data base program such as Excel[®] to analyze data. These worksheets are intended to help tribes understand the calculations that are necessary to go from the survey questions to the Needs data that must be submitted for the Census challenge. Small tribes or tribes without access to computer programs may choose to use these worksheets to do all of their data entry and analysis. Larger tribes and those with access to computer programs probably want to put their data into a spreadsheet or data base, but may find these worksheets helpful as guidelines for calculating the values for the Needs data.

For each of the Needs variables, the tribe should provide totals for all the households located on reservation and trust lands by county, as well as subtotals for each balance of county. The balance of a county in IHBG terms refers to the land in a county that is not reservation or tribal trust land.

The Tribe should complete two separate sets of worksheets, one for households headed by a single-race AIAN, and one for households headed a by multi-race AIAN.

WORKSHEET 1: SUMMARY TABLE – PROPOSED NEEDS DATA BASED ON SURVEY COUNTS SUBMITTED BY TRIBE.

Note: Subtotals are required for reservation and trust lands by county. Separate subtotals are needed for each non-reservation portion of the tribe’s Formula Area, so long as totals for those areas are being challenged.

Needs Variable	Instructions	Total Count based on Survey Responses	Subtotal for Geography 1	Subtotal for Geography 2
AIAN persons	Survey Q2a– Sum “AIAN alone” and “AIAN in combination with other races” for each survey, and then total across all surveys			
AIAN households – less than 30% of formula median income	See Worksheet 3 and Worksheet 4			
AIAN households – between 30% and 50% of formula median income	See Worksheet 3 and Worksheet 4			
AIAN households – between 50% and 80% of formula median income	See Worksheet 3 and Worksheet 4			
AIAN households – substandard housing	See Worksheet 5			
AIAN households – severe housing cost burden	See Worksheet 6			

WORKSHEET 2: SUMMARY TABLE 2 – NEEDS VARIABLES PROPOSED BY TRIBE BASED ON EXTRAPOLATION OF SURVEY DATA.

Note: Extrapolated data will be considered only if the initial household listing is representative of all households in the geographic area being challenged, scientific sampling techniques are used, and a survey response rate of 70 percent or higher is achieved.

Needs Variable	Proposed Total Count based on Extrapolation of Survey Data	Subtotal for Geography 1	Subtotal for Geography 2
AIAN persons			
AIAN households – less than 30% of formula median income			
AIAN households – between 30% and 50% of formula median income			
AIAN households – between 50% and 80% of formula median income			
AIAN households – substandard housing			
AIAN households – severe housing cost burden			

Detailed Worksheets

WORKSHEET 3: Identify Formula Median Income categories. Determine thresholds that define the three categories of household need based on income. Complete for each county included in the Formula Area. Obtain data from <http://www.huduser.org/datasets/il.html>.

County Name	Household Size	Income threshold 1 30% of Formula Median Income	Income Threshold 2 50% of Formula Median Income	Income Threshold 3 80% of Formula Median Income
County 1	1 person			
County 1	2 persons			
County 1	3 persons			
County 1	4 persons			
County 1	5 persons			
County 1	6 persons			
County 1	7 persons			
County 1	8 or more			
County 2	1 person			
County 2	2 persons			
County 2	3 persons			
County 2	4 persons			
County 2	5 persons			
County 2	6 persons			
County 2	7 persons			
County 2	8 or more			
County 3, etc.				

WORKSHEET 4: Use to determine whether household is low-income. **INCLUDE ONLY IF AIAN-HEADED HOUSEHOLD (SURVEY QUESTION 3 IS "YES")**

HH	Formula Annual Income (Total HH income)	County	Total HH size	Income Needs Category
<i>Survey ID number</i>	<i>Sum of Survey Questions 15a – 15h</i>	<i>Survey Question 17</i>	<i>Survey Question 1</i>	<i>Code income using thresholds in Worksheet 3 for appropriate household size and county area, 1- below 30% 2- between 30% and 50% 3- between 50% and 80% 4- greater than 80%.</i>
1				
2				
3				
4				

WORKSHEET 5: Use to determine number of households in substandard housing. INCLUDE ONLY IF AIAN-HEADED HOUSEHOLD (SURVEY QUESTION 3 IS "YES")

HH	County	Total HH size	Number of Rooms	Persons per room	Complete Plumbing	Complete Kitchen	Counts towards substandard Housing?
<i>Survey ID No.</i>	<i>Survey Q17</i>	<i>Survey Q1</i>	<i>Survey Q4</i>	<i>Divide Q1 by Q4</i>	<i>Survey Q5</i>	<i>Survey Q6</i>	<i>Code YES if Number of Persons Per Room is Greater than 1.01 OR Plumbing is "no" OR Kitchen is "no"</i>
1							
2							
3							
4							
5, etc.							

WORKSHEET 6: Use to determine number of AIAN households with severe housing cost burden.
INCLUDE ONLY IF AIAN-HEADED HOUSEHOLD (SURVEY QUESTION 3 IS "YES")

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
HH	County	Formula Annual Income (Total HH income)	Annual Rent	Annual Mortgage/Mobile Home and Condo etc.	Real estate taxes if not included in mortgage	Insurance if not included in mortgage	Annual cost of utilities	Total Housing Cost	Housing Cost Burden	Counts as Severe Housing Cost Burden?
Survey ID number	Survey Question 17	Sum of Survey Questions 15a – 15h	(Q8 * 12) (blank if not a renter)	(Q9b * 12) + (Q10b * 12) + (Q13 * 12) + Q14b (blank if not an owner)	If Q9c is "NO" record Q11 here; otherwise leave blank	If Q9d is "NO" record Q12 here; otherwise leave blank	Q7a + Q7b + Q7c + Q7d	Calculated – Add Columns D, E, F, G, H	Calculated – Divide Column I by Column C	Code YES if Housing Cost Burden (Column J) is .5 or higher
1		\$	\$	\$	\$	\$	\$	\$	\$	
2		\$	\$	\$	\$	\$	\$	\$	\$	
3		\$	\$	\$	\$	\$	\$	\$	\$	
4		\$	\$	\$	\$	\$	\$	\$	\$	
5, etc.										

Please Note: The definition for AIAN Household for this special tabulation is a household where the head of household and/or spouse is Native American. In addition, HUD uses the U.S. Census Bureau's definition of a household: a person or group of persons who live in a housing unit. This definition equals the count of occupied housing units used in the census.

RAW DATA

1. Total Number of Households in "Formula Area" (from list compiled for survey).
_____ Households listed
 2. Total Number of Households sampled for survey.
_____ Households sampled
 3. Total Number of Households responding to survey.
_____ Households responding
 4. Total persons in households responding to survey. The sum of survey question 1. (For example, if the sample was 2 households, with household #1 having 5 persons and household #2 having 4 persons, the sum of survey question 1 would result in a total of 9 persons).
_____ Persons
 5. Total Number of persons in households responding to survey who are AIAN either alone or in combination with other races. The sum of survey question 2.
_____ AIAN Persons
 6. The total number of AIAN households either alone or in combination with other races responding to the survey. The number of households responding "YES" to survey question 3.
_____ AIAN Households responding
-

CALCULATIONS

7. Response Rate = Line 3 divided by Line 2 (Line 3 / Line 2)
8. Weight of each responding household = Line 1 divided by Line 3 (Line 1 / Line 3)
9. Total AIAN American Persons = Line 5 times Line 8 (Line 5 X Line 8)
10. Total AIAN Households = Line 6 times Line 8 (Line 6 X Line 8)

Please Note: The definition for AIAN Household for this special tabulation is a household where the head of household and/or spouse is Native American. In addition, HUD uses the U.S. Census Bureau's definition of a household: a person or group of persons who live in a housing unit. This definition equals the count of occupied housing units used in the census.

RAW DATA

1. Total Number of Households in "Formula Area" (from list compiled for survey).
2. Total Number of Households sampled for survey.
3. Total Number of Households responding to survey.
4. Total persons in households responding to survey. The sum of survey question 1. (For example, if the sample was 2 households, with household #1 having 5 persons and household #2 having 4 persons, the sum of survey question 1 would result in a total of 9 persons).
5. Total Number of persons in households responding to survey who are AIAN either alone or in combination with other races. The sum of survey question 2.
6. The total number of AIAN households either alone or in combination with other races responding to the survey. The number of households responding "YES" to survey question 3.
7. Total number of AIAN households either alone or in combination with other races with incomes less than 30% of Median Income. The number of households responding "YES" to survey question 3 and whose population equals line 1 and income is below line 2:

TOTAL:		
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8. Total number of AIAN households either alone or in combination with other races with incomes less than 50% of Median Income. The number of households responding "YES" to survey question 3 and whose population equals line 1 and income is below line 2:

TOTAL:		
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9. Total number of AIAN households either alone or in combination with other races with incomes less than 80% of Median Income. The number of households responding "YES" to survey question 3 and whose population equals line 1 and income is below line 2:

80% of Local Area Median Income (From table supplied by HUD)	Persons in household (response to survey question 1)	Total Number of AIAN Households either alone or in combination with other races with income below 30% of Local Area Median (question 10 of survey)
TOTAL:		

10. Total Number of AIAN Households either alone or in combination with other races Overcrowded and or without complete kitchen or plumbing are all of those AIAN households that meet one or more of the following requirements:
 - a) It is overcrowded (Question 1 /Question 4 is 1.01 or greater).
 - b) It is without complete plumbing (responded NO to Question 6).
 - c) It is without complete kitchen (responded NO to Question 7).

11. Total Number of AIAN households either alone or in combination with other races with severe housing cost burden are all those AIAN households who meet the following requirements:

For AIAN renters: $((\text{Question 5a} \times 12 \text{ months}) + \text{Question 8}) / \text{Question 10}$ is greater than or equal to .50

For AIAN owners: $((\text{Question 9d} \times 12 \text{ months}) + \text{Question 9a} + \text{Question 9b} + \text{Question 8}) / \text{Question 10}$ is greater than or equal to .50

Internal HUD Distribution:						
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Jackie Kruszek						
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