

## **VI. SURVEY INFORMATION**



The information contained in this chapter will be used when conducting local surveys for public facilities projects. You should review this information carefully **BEFORE** you begin your survey process.

The HUD Memorandum is included for informational purposes. The instructions that must be followed when conducting your surveys are included in Chapter V, which includes the appropriate forms.



**INCOME CATEGORIES**  
**HOUSEHOLD SURVEY FOR PUBLIC FACILITIES PROJECTS**

Choose the income category below that corresponds to the total annual household income per household size.

CATEGORY	HOUSEHOLD SIZE									
	1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 persons	9 or more persons*	
Extremely Low Income	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	\$ - 0 - to \$ _____	Number Of Persons _____  Annual Household Income \$ _____
Low Income	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	
Moderate Income	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	\$ _____ to \$ _____	
High Income	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	Over \$ _____	

\* For households with 9 or more persons, enter the number of persons in the household and the annual household income figure and later contact Ms. Natasha Bland, Office of Community Development, at 225/342-7412.

A copy of this chart with the income figures inserted that is used to conduct the actual survey must be submitted with the application.

## INSTRUCTIONS

### **Income By Household Chart**

The FY 2007 Income Threshold limits established by HUD and located in this chapter are to be used when completing this chart. The table on page =237 identifies the extremely low income categories by number of persons in the household for each parish, the table on page =236 identifies the low income categories by number of persons in the household for each parish, and the table on page =235 identifies the moderate income categories by number of persons in the household for each parish. Those figures should be inserted on the income by household chart on page = 231 for the corresponding household sizes. Refer to the completed chart for Acadia Parish on the next page = as an example. Please note that the extremely low income figure by household size directly corresponds to the figure shown in the table on page = 237. The lower end of the range for the low income figure is \$1 more than the extremely low income limit and the lower end of the range for the moderate income figure is \$1 more than the low income limit.

If there are five persons in a household located in Acadia Parish and the annual household income is \$41,000, then the household would be classified as high income. If that same household had an annual income of \$10,000, then the household would be classified as extremely low income.

A copy of the completed chart identifying the income limits for each household size and income category that is actually used to conduct the survey must be submitted with the application package.

**EXAMPLE**

INCOME BY HOUSEHOLD SIZE - ACADIA PARISH

CATEGORY	HOUSEHOLD SIZE								
	1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 persons	8 persons	9 or more persons*
Extremely Low Income	\$ <u>- 0 -</u> to \$ <u>9,900</u>	\$ <u>- 0 -</u> to \$ <u>11,350</u>	\$ <u>- 0 -</u> to \$ <u>12,750</u>	\$ <u>- 0 -</u> to \$ <u>14,150</u>	\$ <u>- 0 -</u> to \$ <u>15,300</u>	\$ <u>- 0 -</u> to \$ <u>16,450</u>	\$ <u>- 0 -</u> to \$ <u>17,550</u>	\$ <u>- 0 -</u> to \$ <u>18,700</u>	Number Of Persons
Low Income	\$ <u>9,901</u> to \$ <u>16,500</u>	\$ <u>11,351</u> to \$ <u>18,900</u>	\$ <u>12,751</u> to \$ <u>21,250</u>	\$ <u>14,151</u> to \$ <u>23,600</u>	\$ <u>15,301</u> to \$ <u>25,500</u>	\$ <u>16,451</u> to \$ <u>27,400</u>	\$ <u>17,551</u> to \$ <u>29,250</u>	\$ <u>18,701</u> to \$ <u>31,150</u>	
Moderate Income	\$ <u>16,501</u> to \$ <u>26,450</u>	\$ <u>18,901</u> to \$ <u>30,200</u>	\$ <u>21,251</u> to \$ <u>34,000</u>	\$ <u>23,601</u> to \$ <u>37,750</u>	\$ <u>25,501</u> to \$ <u>40,800</u>	\$ <u>27,401</u> to \$ <u>43,800</u>	\$ <u>29,251</u> to \$ <u>46,800</u>	\$ <u>31,151</u> to \$ <u>49,850</u>	Annual Household Income
High Income	Over \$ <u>26,450</u>	Over \$ <u>30,200</u>	Over \$ <u>34,000</u>	Over \$ <u>37,750</u>	Over \$ <u>40,800</u>	Over \$ <u>43,800</u>	Over \$ <u>46,800</u>	Over \$ <u>49,850</u>	



Moderate

Low

Extremely low

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# **HUD Memorandum Regarding Survey Methodology**

# **U.S. Department of Housing and Urban Development (HUD)**

## **Office Community Planning and Development**

This summary contains suggested procedures for conducting a survey to ascertain whether or not a Community Development Block Grant (CDBG) funded activity designed to benefit an area generally qualifies as primarily benefiting low- and moderate-income (LMI) persons. This summary is an excerpt from a Notice that HUD is developing on the subject and not the final policy guidance.

### **Introduction**

This summary contains procedures and approaches to assist staff in States and localities to develop surveys for the purpose of determining whether a geographic area where a CDBG funded activity is to be located meets the regulatory requirements related to the LMI area benefit national objective. The guide provides State and local CDBG staff who have no substantial survey research background with the basic survey research techniques to make a determination of the LMI status of residents of the service area of a CDBG funded activity. The methods discussed in this guide are basic techniques for conducting a sample survey that will yield acceptable levels of accuracy.

The procedures described in this guide are comprehensive but simple approaches to conducting the least costly surveys. If any (sub)recipient chooses another survey method they must demonstrate why its survey methodology is better than those described in this guide and also describe the extent to which the results qualify the service area as a predominantly low- and moderate-income area.

### **Performing LMI Qualification**

Once the service area is defined, the next step is to determine that it is an area that is primarily residential, and that at least 51 percent of the residents are LMI persons. There are two ways to do this. One way is to utilize US Census data provided by HUD to determine the percent LMI. However, Census data may be inadequate in determining whether at least 51 percent of the residents of the service area are LMI, especially for small service areas that are not generally coterminous with census areas, and service areas in which it is believed that the census figures no longer accurately reflect the conditions in the area. This leads to the second method of determining LMI benefit, which is conducting a survey.

If the second option—a survey—is chosen, the (sub)recipient should compare the percent LMI in the service area obtained from the survey to the percent LMI in the service area obtained from the recent US Census. If the percentage LMI in the service area obtained from the survey differs significantly from that obtained from the recent US Census, adequate explanations for the discrepancy should be provided.

### **Confidentiality**

If you choose to conduct a survey, you must emphasize to respondents that their answers will be kept confidential. People are more likely to provide honest answers if their answers are to remain anonymous. You should do your very best to maintain this confidentiality. Usually, the respondent's name, address, and telephone number appear only on a cover sheet. After the survey is completed, the cover sheet can be shredded or at least separated from the actual interview. If the cover sheets and the questionnaires are both numbered, they can be matched up if it is necessary to do so. What is important

is that the cover sheet and questionnaire should be handled in a manner that ensures that no one will be able to pick up a questionnaire and see the household income of Mr. John Doe.

### **Lifespan of a Survey**

A survey for the purpose of satisfying regulatory requirements for the LMI area benefit must be updated if the service area experiences economic and non-economic changes. Such changes may include factory openings or closings, layoffs by a major employer in the service area, or the occurrence of a major disasters (e.g., hurricanes, tornadoes, or earthquakes, etc.). Grantees who update their Consolidated Plans every five years may also want to conduct surveys at that time. Note that even if a survey is current, it cannot be used for a different activity in a different service area. (Could be used for a different activity within the same service area.)

### **Service Area**

This is the area to be served by the CDBG-funded activity. The inclusion or exclusion of a particular portion of a community's jurisdiction can make the difference between whether or not the percentage LMI residents in the service area is high enough to qualify under the LMI Benefit national objective. The principal responsibility for determining the area served by the activity rests with States and their grant recipients.

### **State Program**

HUD will generally accept the determination of the service area by the State and its grant recipients unless the nature of the activity or its location raises serious doubt about the area claimed by the State and its grant recipients. The area to be served by a CDBG-funded activity need not be coterminous with census tracts or other officially recognized boundaries; it is critical that the service area be the entire area served by the activity—**24CFR 570.483(b)(1)(i)**. The service area boundaries of State CDBG-funded activities may or may not coincide with census or other geographic boundaries: especially in smaller communities and rural areas where block groups or census tracts with low population densities cover large areas. One census tract may cover an entire city; or there may be only two or three census tracts in an entire county. Scenarios which States and State grant recipients commonly face include:

- The service area comprises only a small portion of the unit of general local government, or of a census tract. In such situations, information on the unit of government or the census tract is not useful because the service area residents make up a small fraction of the total, and their characteristics may not mirror those of the larger area. A survey of the service area residents may be the most appropriate way to determine whether the service area qualifies under the L/M Income Area Benefit criterion. Examples of such activities include: extending water lines to serve rural settlements in a county; construction of a neighborhood tot lot serving one subdivision in a city where the entire city is one census tract.
- The service area includes all or part of several units of general local government and may contain both incorporated and unincorporated areas. Data from HUD may be usable for a portion of the service area; therefore, the State and its grant recipients may need supplementary survey data for the other portions of the service area. It may be necessary to survey a large area to determine the percentage of service area residents who are L/M income. Examples of such activities include: (1) construction of a rural water system which serves more than one incorporated city plus portions of the surrounding unincorporated area of two counties in which the cities are located; (2) construction of a new fire station in a city where the municipal fire department provides,

through contract, fire protection service for two adjoining townships (one of which is in a different county).

## **Suggested Procedures for Conducting a Survey to Determine Whether at Least 51 Percent of Residents in a Service Area are LMI Persons**

CDBG guidance standards for conducting surveys, which are located at **24CFR 570.483(b)(1)(i)** for the State program require surveys that are “methodologically sound” to be used as the basis for LMI area benefit when Census data are not used. Experienced researchers employ survey methods that are easy to complete, gather data consistently and accurately, and produces results that answer specific questions. Persons who have never conducted a survey can do so by following a systematic approach. This section describes procedures (consisting of six steps) for conducting a survey to determine whether at least 51 percent of residents in a service area of a CDBG-funded project, are LMI persons. The procedures are comprehensive but simple enough to enable persons with no experience in conducting surveys to do conduct surveys by following this systematic approach.

### **Step 1: Selecting the Survey Type**

The most commonly used surveys for this application are: (a) mail survey (or self-administered questionnaire), (b) face-to-face (or door-to-door) interviews, and (c) telephone interviews (see Table A). For telephone and door-to-door surveys, it might be useful for the survey team to notify people by mail in advance, to let them know that they will be contacted for a survey. This can overcome resistance due to experience with ‘telemarketers.’

**Table A – Summary Comparison of the Three Survey Methods**

<b>Dimension of Comparison</b>	<b>Mailed Questionnaire</b>	<b>Face-to-Face Interview</b>	<b>Telephone Interview</b>
Cost	Moderate	High	Low
Data Quality: Response rate Respondent motivation Interview bias	Low Low None	High High Moderate	Moderate to High High Low
Sample quality	Low	High	Moderate
Interview length	Short	Very Long	Long
Ability to probe and clarify	None	High	High
Speed	Low	Low	High
Interviewer supervision	None	Low	High
Anonymity	High	Low	Low
Ability to use computer assistance during process	None	Possible	High
Dependence on respondent's reading and writing abilities	High	None	None
Control of context and question order	High	High	High

**(a) Mail Survey:** This is a basic method for collecting data through the mail: a questionnaire is a set of questions sent by mail accompanied by a letter of explanation and self-addressed stamped envelope for returning the questionnaire. The respondent is expected to complete the questionnaire, put it in the envelope and return it. A common reason for not returning a questionnaire is that some people may feel it's too much burden. To overcome this problem, researchers send a self-mailing questionnaire that can be folded in a certain way so that the return address appears on the outside. In this manner, the respondent does not risk losing the envelope.

#### **Advantages of a Mail Survey**

- Covers large geographic area
- Provides an opportunity for honest answers (as opposed to dishonest answers)
- No travel required
- Enables researcher to target a particular segment of the population
- Allows respondents to complete the questionnaire at their convenience

#### **Disadvantages of a Mail Survey**

- May have possible coverage errors; for example, address lists might be inaccurate or out of date (duplicate address, incomplete or wrong addresses)
- Not appropriate for requesting detailed written responses
- May have a low return rate if too lengthy, poorly worded, or seems too personal
- May not have anyone available to assist the respondent with questions, especially if the questions are in English but the respondent's primary language is not English. Provisions must be made to provide non-English-speaking residents with a questionnaire in their own language, as appropriate
- Easiest for people to disregard, postpone, misplace or forget about it
- Needs to allow longer time to collect responses
- Costly—must pay for return postage to get a decent response rate; also you have paid for postage even for those that aren't returned
- It's all or nothing—people will either do it all or not at all; with phone or in-person surveys, one might at least get some answers

HUD does not recommend mail surveys unless at least one follow-up letter or telephone call is made to encourage an adequate response rate. Combining a mail survey with a follow-up letter or telephone call may improve the rate of response. For example, if in a door-to-door survey you find that someone is not at home, you can leave a note for the head of the household (or responsible adult) to telephone the interviewer. You can also use the phone to schedule a time when to the conduct an interview or mail a letter to residents of the service area and let them know in advance when an interviewer may will call or visit.

**(b) Face-to-Face (Door-to-Door) Interviews:** This is a data collection technique in which one person (an interviewer) asks questions of another (the respondent) in a face-to-face encounter. It involves more work since the interviewer must go and knock on doors in order to obtain interviews. However, in small areas this type of survey may be the easiest because one can define the service area by its geographic boundaries and develop procedures for sampling within those boundaries so that a list of households in the area is not required. Interviewers have to be well trained to ensure that procedures are consistently followed and that responses are not influenced by facial expressions.

### **Advantages of Face-to-Face Interviews**

- Is a highly reliable method of data collection
- Researcher has full range and depth of information
- Interview may be scheduled to suit respondent's daily agenda
- Respondent has the option to ask for clarifications
- Target population may be easily located and defined
- People may be willing to talk longer, face-to-face, particularly with in-home interviews that have been arranged in advance

### **Disadvantages of Face-to-Face Interviews**

- Responses may be less candid and less thoughtful
- Interviewer's presence and characteristics may bias responses
- Interviewer is required to go to the respondent's location
- Respondents who prefer anonymity may be influenced negatively
- May reach a smaller sample
- Lengthy responses must be sorted and coded
- Can take too much time
- Cost more per interview than other survey methods; particularly true of in-home interviews in rural areas where travel time is a major factor
- May not be able to gain access to the house (e.g., locked gates, guard dogs, "no trespassing signs," etc) in cases where residents cannot be reached by home phone
- Translators may be needed when dealing with non-English speakers

**(c) Telephone Interviews:** A telephone interview is a data collection technique in which one person (an interviewer) asks questions of another (the respondent) via telephone. Telephone numbers of potential participants must be selected randomly. The interviewer must ensure that the respondent is someone competent and knowledgeable enough to answer questions about the household income status. In a telephone survey, you must devise a method for contacting those households without telephones or those with unlisted numbers. Hence it may be preferable to conduct door-to-door interviews in small service areas, especially in rural areas.

### **Advantages of Telephone Interviews**

- Relatively easy to conduct
- Saves money and time
- Appearance and demeanor of interviewer do not influence the respondent
- Respondents may be more honest in giving socially disapproved or sensitive answers due to greater anonymity for respondent
- Interviewer may use an alias rather than his/her real name for privacy or to conceal ethnicity if relevant to the study
- Allows interviewer to ask follow up questions
- No fear for personal safety

### **Disadvantages Telephone Interviews**

- It may be difficult to reach residents who use only cell phones at home—cell phone numbers are not listed
- Respondents may be hostile to interviews because of experience with telemarketing calls disguised as surveys

- Respondents may terminate the interview abruptly
- The interviewer may have problems reaching potential respondents by telephone because of the prevalence of answering machines that screen telephone calls
- Some people often do not like the intrusion of a telephone call to their homes
- Difficulty of reaching people due to reasons such as conflicting schedules
- Respondents may be less candid to someone on the phone than in person
- It may be difficult to get accurate answers from non-English speakers (especially illegal immigrants)

## **Step 2: Developing a Questionnaire**

Constructing a questionnaire is a skill in which requires decisions concerning the content, wording, format, and placement of questions—all of which have important consequences on the results of what you intend to measure. There are basically four areas involved in constructing a questionnaire:

- Determine the question content, scope, and purpose
- Choose the response format to be used in collecting information from the respondent
- Word the questions so as to get at the issue of interest
- Determine how best (i.e., the order) to place the questions in the survey

It is important that all respondents are asked the same questions and that their responses are recorded exactly without additions or deletions. To ensure this, the questions must be written properly and the exact response of each respondent recorded as is presented. It is recommended that interviewers carry two cards for each household. One card will contain figures for each low- and moderate-income level and its corresponding household size (see Table B). If racial/ethnic data are to be collected, the other card will contain the following racial categories: White, Black/African American, Asian, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, American Indian/Alaskan Native & White, Asian & White, Black/African American & White, American Indian/Alaskan Native & Black/African American, and Balance/Other.

Information about the racial and ethnic composition of the service area may be obtained directly from Census data. However, HUD does not object to collecting information about racial and ethnic composition of the service area from the survey. Section 24CFR 570.491 of the State CDBG Rule requires states to submit to HUD data on the racial, ethnic and gender characteristics of persons who are applicants for, participants in or beneficiaries of their CDBG programs. This information must be reported for each activity and should indicate the number persons benefiting by each of the racial/ethnic categories.

**TABLE B - Illustration of Income Cards**

Card Number	Number of Persons in Household	Low/Mod Income Level
1	1	\$19,800
2	2	\$22,650
3	3	\$25,450
4	4	\$28,300
5	5	\$30,050
6	6	\$31,850
7	7	\$33,600
8	8	\$35,400
.	.	.

**Sample Questions**

Question 1:

How many families currently reside at this address? \_\_\_\_\_

Question 2:

How many persons are there in your household? \_\_\_\_\_ (If you are single with no dependents, write 1).

If more than one family resides at the address, complete the following:

Family #1: family size (i.e., number of persons in family) \_\_\_\_\_

Family #2: family size (i.e., number of persons in family) \_\_\_\_\_

Family #3: family size (i.e., number of persons in family) \_\_\_\_\_

Question 3:

Is the current, combined income of all household members residing at this address (including any related, dependent persons over 65 or working dependent children over 18) above or below the figure quoted on this card? \_\_\_ Yes, \_\_\_ No (Present the card showing household sizes and income levels from Table A).

Question 4:

Please, check the racial group to which you belong:

White \_\_\_\_\_, Black/African American \_\_\_\_\_, Asian \_\_\_\_\_, American Indian/Alaskan Native \_\_\_\_\_, and Native Hawaiian/Other Pacific Islander \_\_\_\_\_, American Indian/Alaskan Native & White \_\_\_\_\_, Asian & White \_\_\_\_\_, Black/African American & White \_\_\_\_\_, American Indian/Alaskan Native & Black/African American \_\_\_\_\_, and Balance/Other \_\_\_\_\_. (Present the card showing various racial categories).

**Making Contact**

Initially, the interviewer should make contact with the head of the household or someone who is qualified to speak for the household and has knowledge about the household income. After making contact, the interviewer should introduce him/herself, state the purpose of the survey and solicit the

participation of the respondent. If the interview is being conducted face-to-face, the interviewer should find the card for the household size of the respondent, hand it to the respondent, and then ask the questions and record the answers. If the interview is being conducted by telephone, a card cannot be used therefore, the interviewer should make reference to the income level that is the threshold for a household of the size of that of the respondent. For example, if there are three persons in the respondent's household you might ask, "is the current combined income for your household during the past twelve months, less than or more than \$25,450?"

While the necessary questions are brief and simple, there are some additional factors to take into account when designing the questionnaire. First, the questions used in the survey cannot be "loaded" or biased. For example, the interviewer may not imply that the neighborhood will benefit or receive Federal funding if respondents say that they have low incomes. The questions must be designed to determine truthfully and accurately whether respondents have low- and moderate-incomes. It is permissible to state that the reason for the survey is to gather information essential to support an application for funding under the CDBG program or to undertake a CDBG-funded activity in the area.

Second, you should bear in mind that questions about income are rather personal. Many people are suspicious or reluctant to answer questions about their incomes—especially if they do not see the reason for the question. A good way to handle this problem is usually to put questions about income at the end of a somewhat longer questionnaire on other community development matters. In this instance, a local agency can use this questionnaire to gather some information on what the neighborhood sees as important needs or to gather feedback on a proposed policy or project. At the end of such a questionnaire, it is usually possible to ask questions on income more discretely. If this option is chosen, however, the interviewer should be cautioned that lengthy questionnaire might cause respondents to lose interest before completing the survey. The ideal length here would probably be less than ten minutes, although certainly you could develop an even longer or shorter questionnaire as necessary.

Asking only the critical questions on income; however, you should know best how people in your community would respond to such questions. With a proper introduction that identifies the need for the information, you can generate an adequate level of response with just a two-question questionnaire on income level.

### **Step 3: Selecting the Sample**

The selection of a sample of households to interview involves a series of steps. You must begin by defining the group whose characteristics you are trying to estimate. Then you must determine how many households in that group must be sampled in order to estimate the overall characteristics accurately. Next you must make some allowances for households who, for whatever reason, you will not be able to interview. And finally you must actually select the households from which you will try to obtain interviews. This section discusses each of these steps.

#### **Defining the Population**

If you are trying to determine the proportion of households in a neighborhood with LMI, that neighborhood is the target population. However, instead of a neighborhood, the population may be a town or a county, or it may be defined in some other boundary. Prior to obtaining a sample population, clearly define the area that the sample represents. Let us assume that the population is a neighborhood

that contains about 400 households; sample from the 400 households and make estimates about the income level of all of the persons in the sample.

Once you have defined your population, you next need a method of identifying the households in that area so that you can interview them. Ideally, for a given neighborhood, you would have a list of every person living in the neighborhood and perhaps his or her telephone number. Then you would devise a procedure to select randomly the persons you want to interview. In reality, you probably will not even have a list of all of the households in the neighborhood, so you will have to improvise. One way would be to go to the neighborhood and randomly select which homes to go for an interview—the advantage of this method is that the houses are there, so you can go right to them instead of using a list. After collecting information on the various households, you then can make some estimates about the number of people in the neighborhood and their incomes.

City indexes (if available and up-to-date) usually provide the best source of household information suitable for sampling. Telephone books may be adequate, but keep in mind that you will miss people without telephones or with unlisted numbers. Also, telephone directories usually will have far more people listed than those who are in the service area, so you will need to eliminate those outside of your service area. Tax rolls are a source of identifying addresses in an area; however, they identify only owners whereas you are interested in residents. Also, tax rolls generally identify building addresses, whereas in the case of apartment buildings you are interested in the individual apartments. You can use tax rolls to identify addresses to go to, in order to get an interview, but you cannot use them as the basis of a mail or telephone survey (use [www.reversephonedirectory.com](http://www.reversephonedirectory.com) to access telephone directory that identifies telephone numbers by property address.)

## How Big a Sample?

**Table C – Required Number of Interviews for Service Area of Various Sizes**

Number of Households in the Service Area	Number of Responses
1 – 55	50
56 – 63	55
64 – 70	60
71 – 77	65
78 – 87	70
88 – 99	80
100 – 115	90
116 – 138	100
139 – 153	110
154 – 180	125
181 – 238	150
239 – 308	175
309 – 398	200
399 – 650	250
651 – 1200	300
1,201 – 2,700	350
2,701 or more	400

After you have defined your population and selected a method for identifying individual households in the service area, you must next determine how many households to survey. For most surveys, non-responses from the target sample constitute a potentially serious bias, since the goal is to generalize to the total population. Assuming that you develop a procedure whereby every household in your service area has an equal chance of being included in your sample, you can use Table C to determine how many households you need to interview to develop a survey of acceptable accuracy.

The first column of Table C shows the number of households in the service area and the second column shows the approximate number of responses relative to the number of households. For the purpose of this discussion, 400 households are hypothetically chosen for illustration as shown in Table C; if for example, the service area has 399 – 650 households, 250 households would be the acceptable number of households to be surveyed.

Can there be a 100 percent survey? Instead of taking a sample can the entire population be surveyed? Administering a surveying to the entire population is the same as conducting a census since there is no random sampling. There must be adequate explanations as to why a census was conducted rather than a survey. Regardless of the size of the service area, a census should not be conducted as an attempt to meet the requirement that at least 51 percent of the residents be LMI persons.

### **Unreachables and Other Non-responses**

The standard requirements for conducting surveys includes not only the notion that systematic, representative sampling methods be used, but also that high response rates be obtained and statistical weighting procedures be imposed to maximize representativeness. It is important to realize that the sample sizes suggested in Table C indicate the number of interviews that you need to complete, and not necessarily the size of the sample you need to draw. No matter what you do, some households will not be home during the time you are interviewing, some probably will refuse to be interviewed, some will terminate the interview before you finish, and some will complete the interview but fail to provide an answer to the key question on income level. In order to be considered an adequate response, you must obtain complete and accurate information on the respondent's household size and income level.

### **Drawing Samples**

In sampling you are looking at a portion of everyone in a group and making inference about the whole group from the portion you are observing. For those inferences to be most accurate, everyone who is in the group should have an equal chance of being included in the sample. For example, if you are sampling from a list, using a random numbers table will provide you with a random sample. In using a random-numbers table, you take a list of your population and draw from it according to the table. If, for example, the first three random numbers were 087, 384, and 102, then you would go through your population list and target the 87<sup>th</sup>, 384<sup>th</sup>, and 102<sup>nd</sup> households for an interview.

If your sample size is less than 384, you should skip '384' and go to the next number. Continue until you have achieved the desired sample size. If you encounter unreachables, you should replace them with the next household in the list, in the order they were selected. For example, if you draw a list of 300 households in an effort to obtain 250 interviews, the first household you write off as *unreachable* should be replaced with the 251<sup>st</sup> household.

Achieving a purely random sample can be costly, so sometimes it is acceptable to take some shortcuts. If you do not have a list of all the households in a service area you are trying to measure, but you know the geographic boundaries of the area, you might randomly select a point at which to start and proceed systematically from there. In the hypothetical 400-household neighborhood, in trying for 250 interviews, you would need to interview every 1.6<sup>th</sup> household (400 divided by 250) in order to cover the entire neighborhood. In whole numbers, this works out to about 2 of every 3 households. Therefore, you could start at one end of the neighborhood and proceed systematically through the entire neighborhood trying two doors and then skipping one. A household that is skipped may be used as replacement for any household selected but for which an interview is not possible. If the sample size allows for systematic selection of one out of every six households for interview, begin by randomly selecting any number from one to six; use that household as the starting point for the interview and from there select the every sixth household for interviewing. If the sixth household is unreachable, you could use the third household within the count as replacement.

You will achieve more accuracy if you are not too quick to write off a household as unreachable. You are more likely to achieve randomness if you obtain interviews from the households you selected first. Thus, if you are doing a door-to-door survey, you probably should make two or more passes through the area (preferably at different times) to try to catch a household at home. Frequently they will be busy, but may say that they can do the interview later—you should make an appointment and return. Only after at least two tries or an outright refusal should a sampled household be replaced. With a telephone survey, at least three or four calls should be made before replacing a household.

#### **Step 4: Conducting the survey**

To carry out the survey, you have to reproduce a sufficient number of questionnaires, recruit and train interviewers, schedule the interviewing, and develop procedures for editing, tabulating, and analyzing the results.

##### **Publicity**

To promote citizen participation it may prove worthwhile to arrange advance notice. A notice in a local newspaper or announcements at churches or civic organizations can let people know that you will be conducting a survey to determine area income levels. Moreover, if you let people know in advance how, why, and when you will be contacting them, they may be more likely to cooperate.

As with all aspects of the survey and questionnaire, any publicity must be worded so that it does not bias the results. For example, it is better to say that the community is applying for a CDBG grant and that, as part of the application, the community has to provide current estimates of the incomes of the residents of the service area. It is not appropriate to say that, in order for the community to receive the desired funding, a survey must be conducted to show that most of the residents of the service area have low-and moderate-incomes.

##### **Interviewers**

It is not necessary to hire professional interviewers. Volunteers from local community groups serve well. Also, schools or colleges doing courses on civics, public policy, or survey research may be persuaded to assist in the effort as a means of providing students with practical experience.

It is best if interviewers are chosen that make the respondents feel comfortable. For this reason, survey research companies often employ mature women as their interviewers. When interviewers are of the same race and social class as the respondent, the survey usually generates a better response rate and more accurate results. It important that the interviewer commands the attention of the respondent, ask the questions as they are written, writes down the responses as given, and follows respondent selection procedures.

It is important that interviewers have all the materials needed to complete the interview. Usually, you will want to assemble an interviewer kit that can be easily carried and includes important materials such as:

- A 'professional-looking' 3-ring notebook (this may even have the logo of the organization conducting the survey)
- A map of the service area
- A sufficient number of copies of the survey instrument
- An official identification (preferably a picture ID)

- A cover letter from the sponsor of the survey
- A phone number the respondent can call to verify the interviewer's authenticity.

### **Contact and follow-up**

Interviewers should plan to contact respondents at a time when they are most likely to get a high rate of response. Telephone interviews are usually conducted early in the evening when most people are home. Door-to-door interviews also may be conducted early in the evening (especially before dark) or on weekends. You should try again, at a different times to reach anyone in the initial sample who is missed by the initial effort.

In general, you should know the best times residents of your community can be reached. What should be avoided is selecting times or methods that will risk yielding biased results. For example, interviewing only during the day, from Monday to Friday will probably miss households where both the husband and wife work. Since these households may have higher incomes than households with only one employed member, your timing may lead to the biased result of finding a high proportion of low- and moderate-income households.

Of course, in making contact with a member of the household, the interviewer first has to determine that the person being interviewed is of sufficient knowledge and competent enough to answer the questions being asked. The interviewer thus should ask to speak to the head of the household. If it is absolutely necessary to obtain an interview at the sample residence, the interviewer may conduct an interview with other resident adults or children of at least high school age only after determining that they are mature and competent enough to provide accurate information.

As part of your questionnaire, you should develop an introduction to the actual interview. This should be a standard introduction in which the interviewers introduce themselves, identify the purpose of the survey, and request the participation of the respondents. Usually, it is also a good idea to note the expected duration of the interview—in this case, to let respondents know that the burden to them will be minimal.

Interviewers also should follow the set procedures for replacing “unreachables” (discussed in step 3). If they must write off an interview, they should not say, “well, I was refused an interview here, so I’ll go over there where I think I can get an interview.” This replacement procedure is not random and thus will hurt the accuracy of your survey results.

### **The Interview**

Every interview includes common components. There is the introduction, where the interviewer is invited into the home and establishes the rapport, and the actual process of asking questions. The first thing the interviewer must do is gain entry and several factors can enhance this. Probably the most important factor is your initial appearance. The interviewer needs to dress professionally and in a

manner that will be comfortable to the respondent. The way the interviewer appears initially to the respondent sends simple messages—that you are trustworthy, honest, and non-threatening. Cultivating a manner of professional confidence, the sense that the respondent has nothing to worry about, because you know what you are doing, is an indispensable skill for achieving initial entry.

You are standing at the doorstep and someone has opened the door, even if only halfway. You need to smile and be brief. State why you are there and suggest what you would like the respondent to do. Don't ask—suggest what you want. For example, instead of saying “May I come in to do an interview?” you might try a more imperative approach like “I'd like to take a few minutes of your time to interview you for a very important study.”

Without waiting for the respondent to ask questions, introduce yourself. You should have this part of the process memorized so you can deliver the essential information in 20-30 seconds at most. State your name and the name of the organization you represent. Show your identification badge and the letter that introduces you. If you have a three-ring binder or clipboard with the logo of your organization or sponsor, you should have it out and visible. You should assume that the respondent will be interested in participating in your study—assume that you will be doing an interview here.

If the respondent indicates that the interview should go ahead immediately, you need an opening sentence that describes the study. Keep it short and simple, no big words, and no details. Use the questionnaire carefully but informally. Interviewers should read the questions exactly as they are written. If the respondent does not understand the question or gives an unresponsive answer, it usually is best for the interviewer to just repeat the question. Do not attempt to guide the respondent to give particular responses. Questions should be read in the order in which they are written. The respondents' answers should be recorded neatly, accurately and immediately as they are provided. At the end of the interview, and before proceeding to the next interview, the interviewer should always do a quick edit of the questionnaire to be sure that they have completed every answer correctly. This simple check helps to avoid the frustrating mistake of having taken the time and expense of conducting the interview, but without getting the information sought.

If you elect to include other questions, and if you place the questions on income at the end, it is possible that a willing respondent will end the interview before you get to the critical question. If it appears to the interviewer that the respondent is about to terminate the interview, it is recommended that you immediately try to get an answer to the critical income question.

### **Editing**

Interviewers should turn their completed surveys over to the person who will tabulate and analyze the data. That person should review each survey to ensure that it is complete and that each question is answered only once and in a way that is clear and unambiguous. Questions or errors that are found should be referred to the interviewer for clarification. It also may be desirable to call the new respondent, if necessary, to clarify incomplete or ambiguous responses. If a question or an error cannot be resolved, a replacement should be added and the respondent contacted. Note that editing is an ongoing process because, even after you have started to tabulate or analyze the data, you may come across errors that need correction.

### **Step 5: Determining the Results**

After you have your data collected and edited, you need to add up the numbers to see what you have learned. Actually, it is useful to think of this in two parts: (1) tabulating the responses from the questionnaires and calculating an estimated proportion of low-and moderate-income persons; and (2)

determining how accurate that estimate is. The first part can be taken care of by completing the enclosed Low-and Moderate-Income Worksheet.

### **Tabulation**

Computer programs such as Microsoft Access and Excel, Minitab, SAS, and SPSS are easy to use in tabulating the data. Computers also make it relatively easy to check for accuracy and consistency in the data. However, you can perform the calculations by hand or with a calculator. Also, you can process the data by putting it on a code sheet, by entering it on a manual spreadsheet, or just by flipping through the completed surveys. Regardless of how you process and tabulate the data, when you are finished you should be able to complete the Low-and Moderate-Income Worksheet.

### **Low- and Moderate-Income Worksheet**

1. Enter the Estimated total number of households in the service area 1. \_\_\_\_\_
2. Enter the total number of households interviewed. 2. \_\_\_\_\_
3. Enter the total number of persons in the households interviewed. 3. \_\_\_\_\_
4. Enter the total number of persons in the households interviewed who are LMI persons. 4. \_\_\_\_\_
5. Divide Line 4 by Line 3 5. \_\_\_\_\_
6. Multiply Line 5 by 100. This is the percent LMI persons in the service area 6. \_\_\_\_\_

### **Analysis**

If you have done everything right, including random selection of the required number of households, and your estimate shows that less than 51 percent of the residents of the service area are LMI persons, you cannot undertake LMI area benefit activities.

If the entry at Line 6 is at least 51 percent, you can perform additional analyses to determine the extent to which your estimate of the percent of LMI persons is correct. First, compare the average size of low- and moderate-income households with non-LMI households. The closer these figures are to each other, the more confident you can be in your estimate. Thus if you estimate that 53 percent of the residents have low- and moderate-incomes and you find in your sample that both low- and moderate-income households and above low- and moderate-income-households have an average of 3.4 people, you can be pretty sure that your results are reliable.

A second simple calculation is to arrange your data into a table such as that shown in Table D. This table enables you to compare the distribution of household sizes of households of low- and moderate-incomes with those that are above low- and moderate-incomes. In completing Table D, you would count the number of low- and moderate-income households in your survey that have just one person and enter the figure under “number” across from “one.” You would proceed to enter the number of low- and moderate-income households with two persons, with three persons, and so forth through the “nine or

more” category. Adding up all the entries in this column, you enter the sum across from “total” which will be the total number of low- and moderate-income households from which you obtained interviews. Then considering households that are above low- and moderate-income levels, you follow the same procedures to complete the “number” column for them. For each income group, divide the number of one person households by the total number of households in that income group and multiply it by 100, to yield the percent of that group that are in one-person households. Fill in the “percent” columns, using this procedure. Each of the percent columns should total to 100 or so allowing for rounding errors.

Once you have completed entering the data, compare the percentages of LMI respondents with the percentages of the above LMI respondents for each household size. The closer the distribution, the greater the degree of confidence you can have in your estimate of the proportion of LMI persons. For example, if among your LMI group, 10 percent have one person, 40 percent have two persons, and 50 percent have three persons, and among your above low- and moderate-income group 12 percent have one person, 41 percent have two persons, and 47 percent have three persons, you would have a great deal of confidence in your estimate.

**Table D – Comparing the Distribution of Household Size by Household Income**

Number of Person in Household	Households With Low-Mod Income		Households Above Low-Mod Income	
	Number	Percent	Number	Percent
One				
Two				
Three				
Four				
Five				
Six				
Seven				
Eight				
Nine or more				
Total		100%		100%

Compare your survey results to the most recent Census-HUD LMI statistical data (LMISD) for the census geography that most closely matches the service area. If there is big difference (e.g., LMISD = 29%, survey = 55%), then there may be other known factors to explain the difference. For example, there may have been a major economic downturn in the service area since the last census or the service area is only a small part of a large census tract and is the LMI side of the tract. Also, compare the block-group level data to ascertain that there were no anomalies in one part of town versus another; review the

map of respondents versus block groups to make sure the responses were not skewed toward one side of town. Carefully analyze each scenario and make efforts to document the basis for any discrepancy.

Consider the scenario where you estimate that 51 percent of the residents have low- and moderate-incomes. You examine the distribution of the household sizes according to Table D and find that in your sample 100 percent of your low- and moderate-income group has just one person per household and 100 percent of your 'above low- and moderate-income' group has nine or more persons (this would be an exceptional neighborhood). This distribution would make it probable that your sample was badly distributed in favor of large above-lower income households.

Third, after completing data collection, non-respondents should be analyzed to determine that they were reasonably random. For example, you may want to tabulate the rate of response by street or block in the service area to see whether there are notable gaps in the coverage of your survey. You may want to examine the racial or ethnic background of your respondents (if your survey collected such information) and compare them with what you supposed the distribution to be. If you do not detect any major gaps in the coverage of your sample or any anomalies in the characteristics of your non-respondents, you can be more certain of the accuracy of your estimates.

### **Step 6: Documenting Your Results**

It is important that the results of the survey be documented, since those who audit or evaluate your program may want to review the procedures and data used to determine that the service area qualifies under the CDBG program regulations. You should therefore maintain careful documentation of the survey. The contents of that documentation are as follows:

1. Keep the completed surveys. This will show that you actually did the survey and that you asked the proper questions.

It is best if each survey has a cover sheet that contains the information that identifies the respondent, such as name, address, and telephone number. Then, when the survey is complete, the cover sheets can be separated from the questionnaires. You can save the questionnaires as documentation of your work, but you maintain the privacy of your respondents.

Save the cover sheets separately provides you a record of who was contacted for the survey. If anyone wanted subsequently to verify that you have not made up that data, they could contact some of the respondents noted on the cover sheet and ask them whether, in fact, they have been contacted on such-and-such a date by such-and-such a person to discuss matters related to community development. The privacy of their original responses still is protected by this procedure.

2. Keep a list of the actual households sampled. This might be one list with the sampled households checked once if they were sampled, and checked twice if they were interviewed. Replacement households should be noted too. There should be written documentation about the method you used to select households from the list for interviewing. Note that this is different from keeping just the cover sheets, since it documents not just who was interviewed, but also who was not interviewed and how interviewees were selected.

If you did a door-to-door sample without starting from a universe, you should have written down the procedures used to select the sample, including instructions to interviewers for replacing sampled households who were not interviewed.

3. Survey data should be retained in accordance with record-keeping requirements of the State program at **24CFR 570.490**. If you enter the data into a computer, keep a backup of the data in a CD or floppy. If you do tabulations on spreadsheets, retain the spreadsheets. If you read through the questionnaires, counted responses and entered them into a table progressively, keep the tables with the raw data counts.