

U.S. DEPARTMENT OF
HOUSING AND URBAN DEVELOPMENT

Random Digit Dialing Surveys

A Guide to Assist Larger Housing Agencies in Preparing Fair Market Rent Comments

NOTE: This guide is intended for larger Housing Agencies. Smaller Housing Agencies usually will find it advantageous to use the simpler methods detailed in a companion publication, Rental Housing Surveys: A Guide to Assist Smaller Housing Agencies in Preparing FMR Comments.

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Introduction

This guide explains the concepts and procedures used to conduct a random digit dialing (RDD) telephone survey to estimate Fair Market Rents (FMRs) for a particular area. It is intended primarily for larger Housing Agencies interested in appealing FMRs proposed by the U.S. Department of Housing and Urban Development (HUD).¹

This guide discusses, in a nontechnical manner, the circumstances under which an RDD survey might be appropriate and recommends ways of contracting out such a survey. It is not intended to be a complete guide to RDD methodology; HUD assumes that an experienced, professional firm will conduct the survey. Because of the technical complexities and requirements of RDD work, HUD advises nonspecialists not to attempt the work themselves.

If you are considering conducting an RDD survey, this guide contains the information you need to select a contractor and conduct a survey, including the following:

- The **Telephone Survey Questionnaire** (Attachment 1).
- A sample **Request for Bids letter** (Attachment 2).
- A **Statement of Work** that tells contractors exactly what they are required to do if they are awarded the survey contract; it contains sufficient information for a contractor to submit a fixed price bid (Attachment 3).
- A **listing of telephone survey contractors** that appear to have had experience with the automated telephone survey and data analysis procedures required to conduct this type of effort efficiently (Attachment 4).

¹HAs serving smaller areas, generally those with fewer than 500 Section 8 units under contract, may wish to use the simplified methods described in a companion publication, *Rental Housing Surveys: A Guide to Assist Smaller Housing Agencies in Preparing Fair Market Rent Comments*.

- A description of **how FMRs are computed** (Attachment 5).
- Recent experience with **sample sizes required** (Attachment 6).
- **Bid evaluation criteria** for prospective contractors (Attachment 7).
- Suggestions for **obtaining cooperation** from sample members (Attachment 8).
- **Changes from previous versions** of this guide (Attachment 9).

1. The Basis of FMRs

Housing assistance payments authorized under Section 8 of the United States Housing Act are limited by FMRs, which HUD establishes by geographic area. In general the FMR for an area is the amount needed to rent privately owned, decent, safe, sanitary, and modest rental housing. FMRs include not only the shelter rent but also the cost of all utilities, except telephones.

FMRs are based on the 40th percentile rents of units occupied by recent movers—that is, those households who moved to their present residence within the past 15 months—excluding housing units, units for which the market rent cannot be determined, and units built within the past 2 years. Proposed FMRs are published for public comment each year in April or May and final FMRs are published by October 1 for the Federal fiscal year which begins on that date.

FMRs are based primarily on survey data from one of three sources:

- The decennial Census, which has rental data for metropolitan areas and nonmetropolitan counties.
- The American Housing Survey (AHS), whose rental data are available for 44 large metropolitan areas (11 areas are surveyed each year over a 4-year cycle).
- RDD telephone surveys of rents conducted by HUD and local program sponsors.

These surveys provide the benchmark Fair Market Rents that become the basis for calculating the current year's FMRs. The largest number of revisions occur after the release of the decennial Census data. The FY 1994 FMRs were the first to be revised using the 1990 Census data.

The way FMRs are updated between Census benchmark years depends on the data available. AHS data are used for the 44 large metropolitan areas covered by that survey. Where they are available, local Bureau of Labor Statistics Consumer Price Indices (CPI) for rental housing and utilities are used to update FMR estimates. For most smaller areas not covered by local CPI surveys, FMRs are updated using estimates of changes in rents in the 10 HUD regions. RDD telephone surveys are used to develop HUD regional metropolitan and nonmetropolitan year-to-year update factors at a more detailed level of geography than is possible with the comparatively small national CPI surveys.

Attachment 5 provides more detailed information on how FMR estimates are developed and updated.

2. Deciding Whether to Conduct a Rent Survey

An RDD telephone survey to estimate a particular area's FMRs typically costs between \$10,000 and \$12,000. This cost is borne by the Section 8 agency or some other interested party. Two to three weeks of staff time over a 2- or 3-month period is needed to select and monitor a survey contractor and do related contact work with HUD staff.

Because the telephone survey is a sample survey, its results are subject to sampling errors. For the sample sizes recommended here, there is a 95-percent likelihood that the RDD estimates will be within 5 percent of the true 40th percentile rent for the area. Estimates will often be within a \$10-15 range, and there is a very low likelihood that they will be outside a \$20 range. This range of estimates implies that FMRs may need to have been underestimated by at least \$20 to guarantee that a survey will justify FMRs higher than those proposed by HUD.

Whether it is cost-effective for a Housing Agency (HA) to conduct a survey depends on the number of Section 8 units it manages and the extent to which its FMRs are too low. Table 1 provides information on the cost-benefit tradeoffs for HAs. The more units an HA manages, the easier it will be to recover the cost of a survey. As shown in Table 1, even if a relatively small FMR underestimate was found, an HA with 1,000 Section 8 units would recoup the costs of the survey within the first year. A 300-unit HA with an FMR that was \$50 too low would recover the costs of the survey within the first year and be \$15,000 ahead by the end of the second year. In contrast, an HA with 100 Section 8 units and an FMR that was \$75 too low would have to wait almost 2 years before it would recover the cost of a survey. RDD surveys are generally cost-effective for those FMR areas with at least 500 Section 8 units under contract but questionable for areas with significantly fewer units.²

Any survey to estimate FMRs must be conducted over an entire FMR area. This condition applies even when a program sponsor's jurisdiction covers only part of an FMR area.

²HAs with fewer units under contract should refer to *Rental Housing Surveys: A Guide to Assist Smaller Housing Agencies in Preparing Fair Market Rent Comments* for a simplified methodology.

TABLE 1: Costs & Benefits to HAs of Random Digit Dialing Telephone Surveys

Number of Section 8 Units in Area	Amount In-Place FMR is Too Low				
	\$0	\$25	\$50	\$75	\$100
End of First Year					
50	(\$14,000)	(\$12,800)	(\$10,400)	(\$9,200)	(\$9,200)
100	(\$14,000)	(\$11,600)	(\$9,200)	(\$6,800)	(\$4,400)
200	(\$14,000)	(\$9,200)	(\$4,400)	\$400	\$5,200
300	(\$14,000)	(\$6,800)	\$400	\$7,600	\$14,800
500	(\$14,000)	(\$2,000)	\$10,000	\$22,000	\$34,000
750	(\$14,000)	\$4,000	\$22,000	\$40,000	\$58,000
1,000	(\$14,000)	\$10,000	\$34,000	\$58,000	\$82,000
2,000	(\$14,000)	\$34,000	\$82,000	\$130,000	\$178,000
3,000	(\$14,000)	\$58,000	\$130,000	\$202,000	\$274,000
4,000	(\$14,000)	\$82,000	\$178,000	\$274,000	\$370,000
5,000	(\$14,000)	\$106,000	\$226,000	\$346,000	\$466,000
10,000	(\$14,000)	\$226,000	\$466,000	\$706,000	\$946,000
20,000	(\$14,000)	\$466,000	\$946,000	\$1,426,000	\$1,906,000
30,000	(\$14,000)	\$706,000	\$1,426,000	\$2,146,000	\$2,866,000
End of Second Year					
50	(\$14,000)	(\$11,600)	(\$9,200)	(\$6,800)	(\$4,400)
100	(\$14,000)	(\$9,200)	(\$4,400)	\$400	\$5,200
200	(\$14,000)	(\$4,400)	\$5,200	\$14,800	\$24,400
300	(\$14,000)	\$400	\$14,800	\$29,200	\$43,600
500	(\$14,000)	\$10,000	\$34,000	\$58,000	\$82,000
750	(\$14,000)	\$22,000	\$58,000	\$94,000	\$130,000
1,000	(\$14,000)	\$34,000	\$82,000	\$130,000	\$178,000
2,000	(\$14,000)	\$82,000	\$178,000	\$274,000	\$370,000
3,000	(\$14,000)	\$130,000	\$274,000	\$418,000	\$562,000
4,000	(\$14,000)	\$178,000	\$370,000	\$562,000	\$754,000
5,000	(\$14,000)	\$226,000	\$466,000	\$706,000	\$946,000
10,000	(\$14,000)	\$466,000	\$946,000	\$1,426,000	\$1,906,000
20,000	(\$14,000)	\$946,000	\$1,906,000	\$2,866,000	\$3,826,000
30,000	(\$14,000)	\$1,426,000	\$2,866,000	\$4,306,000	\$5,746,000

Assumptions: The survey contractor charges \$12,000 for the RDD survey, to which is added \$2,000 for HA administrative overhead costs. 8.0 percent of the FMR is paid to the HA for administrative expenses, with this fee changing as FMRs change. The actual cost of the RDD survey could be less, and the HA may choose to ignore the \$2,000 "overhead" included in the \$14,000 total cost used here.

3. Sample Design

After experimenting with various approaches, HUD has determined that a list-assisted RDD approach is the most efficient method available. This method differs from dialing purely at random, which is not as efficient because most of the randomly generated telephone exchanges will not be in operation: many telephone numbers—grouped into what are called 100-blocks³—will not be in use, and many of the 100-blocks that are in use will contain numbers for businesses only.

Modern sampling techniques take advantage of the fact that residential telephone numbers are likely to be clustered among a small number of 100-blocks in which a large percentage of the possible numbers—more than 40 percent but often much higher—are in use. Rather than selecting a sample of telephone numbers purely at random, the list-assisted approach recommended in this guide uses information about which 100-blocks will likely contain residential numbers as a basis for selecting a sample of telephone numbers. This approach makes it faster and less expensive to conduct statistically valid surveys.

Lists of working 100-blocks used by survey firms are generally purchased from one of a small number of firms that specialize in providing such information. The list of working 100-blocks, called the Master Exchange Data Base, is a comprehensive listing of all telephone exchanges currently in use in the United States. It consists of all working exchanges in the country, provided by Bell Communications Research (Bellcore), plus a computerized listing of individual telephone numbers, along with the State, county, and ZIP codes. The Bellcore information is used to determine whether there are at least 5 working telephone numbers in each exchange and 2 in each 100-block, and the resulting list is used as the basis for developing a survey sample.⁴ The listing is updated every quarter.

After identifying the working 100-blocks that are in the geographic area to be sampled, a set of telephone numbers to be called is generated by randomly selecting a working 100-block and then

³A telephone number is defined as having 10 digits (i.e., the area code [first 3 digits], the exchange [the second 3 digits], plus the last 4 digits). A 100-block is simply a way of grouping telephone numbers that have the same first 8 digits. For example, the telephone number 202-708-6677 consists of the following parts:

Area code:	202
Telephone exchange:	708
Last 4 digits:	6677
100-block:	202-708-6600 through 202-708-6699

⁴Testing has shown that 100-blocks with only one number listed are generally errors and that less than 0.1 percent of all numbers are contained in such blocks.

randomly adding a value from 00 to 99. This process is repeated as many times as needed to produce the desired sample size, with an allowance for nonresponses.

At this point some enhancements can be made to increase sampling efficiency. One technique is to compare the telephone number sample with a list of business numbers and eliminate those that match and do not also have a residential listing. Another technique, which is often used, is to use equipment that mechanically predials the numbers in the sample to detect one of the special dial tones that typically precede “not in service” messages. Using such equipment, calls can be terminated before the telephone number rings. This type of predialing generates a list of working numbers that can then be used for survey contacts. However, the use of these enhancements is not required.

An alternative approach, which is *not acceptable*, is to develop a random sample from telephone numbers listed in the residential telephone directory. This approach leads to a serious bias that is impossible to correct: It omits many or most of the telephone numbers of recent movers and unlisted numbers. In most areas up to 30 percent of the households do not have their telephone numbers listed; in large metropolitan areas, this proportion approaches 50 percent.⁵

Using telephone interviews inevitably results in some bias because households without telephones have lower incomes and pay lower rents, on average, than those with telephones. Seven percent of households in the United States lack phones; in the rural South, the proportion is as high as 40 percent among renter households. Thus surveying only households with telephones leads to some upward bias in rent. However, FMRs are based on standard-quality rental units, and many of those without phones are substandard. Neither bias has a large impact on the 40th percentile rents because so many units are clustered near the middle of the distribution. Research to date indicates that the difference between rents for all units and for standard-quality units is almost exactly the same as the difference between rents for all units and rents for units with telephones. Thus, the two biases essentially cancel each other out.⁶

4. Sample Sizes

⁵ Furthermore, research has shown that unlisted numbers tend to be those for the most mobile and lowest income households, precisely those that must be reached in any FMR survey. Linda B. Piekarski, "Choosing Between Directory Listed and Random Digit Sampling in Light of New Demographic Findings," Fairfield, Connecticut: Survey Sampling, Inc., paper presented to the 1989 AAPOR Conference.

⁶ Alan Fox and Joseph P. Riley, "Telephone Coverage, Housing Quality, and Rents: RDD Survey Biases." Proceedings of the American Statistical Society, Section on Survey Research Methods, August, 1996.

Whenever a sample is drawn from a universe—the set containing all the items—the characteristics of the sample may not match the characteristics of the universe. If the sample is drawn randomly or scientifically, statistics can be used to estimate the reliability of the data produced from a survey of that sample.

In the case of FMR surveys, the objective is to estimate the rent paid by recent movers for one- and two-bedroom units. “Recent movers” are those who had moved into their present unit within the previous 15 months.

One-bedroom unit rents can be converted into two-bedroom equivalent rents using local rent relationships (reflected in the most recent *Federal Register* FMR publication). The 40th percentile rent for two-bedroom units can be calculated by combining the two-bedroom and two-bedroom equivalent rents, ranking them by gross rent, and selecting the 40th percentile rent.

In its own surveys, HUD seeks to obtain estimates that have a 95-percent likelihood of being within 5 percent of the true 40th percentile rent. To do so, HUD completes at least 200 interviews of eligible recent movers, increasing the sample size if necessary to produce the desired confidence interval. The size of a survey sample is only weakly related to the size of the universe. Although it may seem counterintuitive, the number of interviews required does not vary measurably with the size of an area except for very small areas, where this methodology is not suitable. A sample of 200 cases normally produces an estimate which has a 95-percent likelihood of being within 5 percent of the true 40th percentile FMR. However, in some instances larger sample sizes are required. Because the survey sample is essentially the same for all areas where this approach is cost-effective, **HUD will accept HA-sponsored surveys of 200 eligible recent movers**, without the need for confidence interval testing and sample size adjustment. Data for other one- and two-bedroom rentals identified by the survey should also be collected and reported but will not normally be used in estimating the area's FMR.

To obtain a targeted number of interviews of renter households, the contractor must call a much larger number of telephone numbers. The majority of list-assisted, randomly generated telephone numbers are not of the types of households needed to obtain FMR estimates. Initial estimates of the number of telephone numbers needed to complete a survey in a given area assume that:⁷

- Surveyors must complete 200 interviews with eligible recent movers renting one- and two-bedroom units to achieve the precision sought.

⁷ These numbers reflect the HUD's experience with 33 metropolitan RDD surveys. The factors are arranged in the order in which they are determined during the survey process.

- 42 percent of the phone numbers are answered and determined to be residential (see Attachment 6 for the four components of this factor).
- 24 percent of the remaining phone numbers are rentals.
- 69 percent of these have 1 or 2 bedrooms.
- 97 percent of these are the usual residences, rather than second homes.
- 94 percent of these were built at least 2 years ago.
- 88 percent of these are not owned by an HA.
- 82 percent of these are not owned by a relative.
- 99 percent of these are willing to answer the rent and utility questions.
- 42 percent of these are recent movers.
- For the 33 metropolitan areas, the result is that 8,629 sample phone numbers must be drawn.
- For HA-sponsored surveys, the sample size should be increased by about 25 percent to account for any unanticipated local variations. This costs very little extra, streamlines the survey process, and avoids possible overlapping samples from a second set of phone numbers.

The full computation is shown in Attachment 6, for all 33 combined metropolitan area RDDs and for one specific area (Portland, Oregon.) The sponsoring HA and its contractor are responsible for adjusting the figures according to local data.

If HAs are interested in doing RDDs of areas that have already been surveyed, as shown in Attachment 6,⁸ they probably should use those sample sizes, increased by 25 percent, rather than attempt to calculate their own sample requirements.

⁸ Contact HUD for a list of more recent RDDs.

For its own surveys, HUD adjusts sample sizes near the midpoint of the process to account for discrepancies from initial assumptions. The number of households contacted is increased or reduced to achieve the number of completed interviews sought. HUD recommends that contractors follow the same practice.

5. Interviewing Procedures

5.1. Computer-Assisted Telephone Interviewing

Survey firms that use a computer-assisted telephone interviewing (CATI) system usually have pricing and quality advantages over those that do not. A typical CATI system records all numbers in the sample and selects and calls each number, thereby avoiding operator dialing errors. It also manages, schedules, and records the time and telephone numbers associated with outgoing calls, appointments to call back, resumptions of interrupted interviews, and calls to numbers which were previously not answered, busy, or picked up by an answering machine. The system ensures that repeat calls to a number are made at different times of the day and on different days. A CATI system also typically guides the interviewer through the questionnaire's skip pattern and checks data entries for permissible ranges and codes as they are keyed in.

The majority of interviews should be conducted when respondents are likely to be at home, such as weekday evenings, Saturdays, and Sunday evenings. One call might be made during business hours, to most efficiently identify business number. The survey contractor must be staffed with this schedule in mind. In certain geographic areas, Spanish-speaking interviewers must be available, and possibly some fluent in other languages.

5.2. Telephone Data Collection

A sample of telephone numbers is purchased from a firm that markets such lists. It is usually cost-effective to have business and nonworking numbers screened out, as discussed earlier. The purchased list is then loaded into the CATI system, which then selects and releases numbers to interviewing staff. *At least five attempts* must be made at different times and days to reach a particular telephone number before it is replaced. The outcome, or disposition, of each call attempt is recorded as a code by the interviewers and stored in a call management database.

The interview should use the wording and skip patterns of the questionnaire shown in Attachment 1. Because CATI interviewing is assumed, while the actual questions will be the same as shown there, the skips are made automatically by the CATI system.

5.3. Eligibility

Upon contact, respondents are screened to filter out all but market-rate one- and two-bedroom renter households. To be eligible for the survey, a unit must:⁹

- Be located in the FMR study area.¹⁰
- Be rented.
- Contain one or two bedrooms.
- Have been built at least 2 years ago.
- Not be owned by a Housing Agency or by a relative.
- Be rented for cash.
- Have an unsubsidized market rent or, if subsidized, the respondent must be able to report the full market rent.
- Be the occupant's primary residence.
- Not be a group living situation, such as a college dormitory or group home.
- Not have the rent reduced for substantial tenant-provided maintenance.

⁹ All renters who pass the eligibility checks in this list are interviewed, although only recent movers are typically used to estimate the FMR.

¹⁰ In New England it is also necessary sometimes to add a township locational screening question to ensure that respondents live within the survey area.

6. FMR Computations

Data on one- and two-bedroom units occupied by recent movers that pass the screening tests noted above serve as the basis for FMR estimates. Data on otherwise eligible rental units not occupied by recent movers should also be collected for comparison and analysis. The primary cost of these surveys is finding recent movers to eligible one- and two-bedroom units, so collecting data for otherwise eligible rental units is relatively inexpensive and can be used to evaluate the reliability of the recent-mover estimate.

To convert the survey information into two-bedroom gross rents, you need to make two adjustments: contract rents need to be converted to gross rents (that is, rents that include all utility costs), and one-bedroom gross rents need to be converted to two-bedroom equivalent gross rents.

6.1. Adding Utility Costs

Census Bureau research has shown that most renters cannot provide very reliable estimates of their average monthly utility costs but do know what utilities they pay for. For RDD surveys information is therefore sought on what utilities are paid by tenants, rather than asking them for the amount of money they pay for utilities. Local Section 8 utility schedules are matched with tenant responses to estimate the costs of utilities paid by tenants.

The match against the Section 8 utility allowance must be done on a unit-by-unit basis; it is not permissible to use an "average" utility amount. If there is no Section 8 allowance for a particular utility, the HA or the contractor must estimate it for survey respondents using that utility, and tell HUD how that estimate was made. This is most commonly necessary for air conditioning, which many Section 8 utility allowance schedules omit. HUD can provide estimates of utility amounts—air conditioning in particular—for the entire country.

Housing Agencies that manage Section 8 programs are required to maintain current utility schedules for different structure types and utility mixes. These schedules are based on surveys of local utility consumption and cost patterns using guidelines provided by HUD. HAs are required to review these schedules annually and update them as needed. These schedules, which are usually maintained on Form HUD-52667, provide the best and most current source of data on local utility costs available to HUD.

6.2. Converting Bedroom Sizes

One-bedroom units are included in the RDD survey to increase the effective size of the sample and thereby improve the accuracy of the rent estimates. The 1990 Census provides detailed information on the relative rents of rental units with different bedroom sizes. These relationships generally are stable over time. One- and two-bedroom proposed or final FMRs, as published in any recent *Federal Register* publication, can be used for this purpose. The ratio between these numbers should be multiplied by the one-bedroom gross survey rents to convert one-bedroom rents into two-bedroom equivalents.

An example for Anniston, Alabama, follows:

Proposed FY 1994 one-bedroom FMR:	\$279
Proposed FY 1994 two-bedroom FMR:	\$352
One- to two-bedroom conversion factor:	1.26 (\$352/\$279)

6.3. Calculating 40th Percentile FMR Estimates

To calculate the 40th percentile, the number of eligible cases is multiplied by 0.40. The cases are sorted from the lowest to the highest rent, and the 40th percentile rent is then set at the point at which the 40th percentile case falls.

Assuming there were 200 recent-mover cases, the 40th percentile case would be the 80th case (40 percent of 200). If the 200 cases are then sorted by lowest to highest rent, the 80th case from the lowest would be the 40th percentile rent. In cases where the 40th percentile case is not a round number, the results should be found by interpolation.

6.4. Reliability of FMR Estimates

The statistical reliability of the 40th percentile rent estimate produced with a sample size of 200 two-bedroom rentals occupied by recent movers depends on the distribution of values near the 40th percentile. The range of rents paid for a two-bedroom unit typically forms a pattern that is similar to a normal distribution, in which most rents are clustered near the median rent value.

Based on an analysis of surveys conducted to date, a sample size of 200 two-bedroom units occupied by recent movers will generally provide estimates that have a 95 percent likelihood of being within 5 percent of the true 40th percentile rent for recent movers.

The reliability of the RDD estimate is determined by calculating the variance of the estimate, which is the range of values within which the true 40th percentile estimate is likely to fall, given a specified level of probability. A 95 percent confidence interval standard is widely accepted in connection with variance computations. It simply means that one can say, with a 95 percent chance of being right, that a given estimate is reliable within some specified range. Stated otherwise, there is a 5-percent chance (1 in 20) that the true 40th percentile rent is outside of the 95 percent confidence interval range.

The variance of interest in the RDD surveys is a percentile rather than an average. This makes calculation of the variance more difficult than that for the averages. A commonly used approximation is as follows:

$$X_{\text{upper}} = X_{.40} + 1.96 \sqrt{(p)(1 - p)/n}$$

$$X_{\text{lower}} = X_{.40} - 1.96 \sqrt{(p)(1 - p)/n}$$

$$CV = \frac{X_{\text{upper}} - X_{\text{lower}} * 100}{X_{.40}}$$

where:

- X_{upper} = Rent associated with upper confidence limit
- X_{lower} = Rent associated with lower confidence limit
- $X_{.40}$ = 40th percentile rent
- p = .40
- n = Number of recent-mover interviews
- CV = Coefficient of variation (in percent)

The survey aims for a coefficient of variation of 10 percent or lower; the confidence interval is the range from X_{lower} to X_{upper} . For a \$400 FMR, this means that the estimate is expected to be no more than \$20 (or 5 percent) above or below the true value; for a \$600 FMR the estimate would be no more than \$30 above or below the true value.

HAs conducting their own RDDs are not expected to compute variances; HUD will compute them from the machine-readable data that HAs submit along with their appeals, using the approximation noted above.

7. Contractor Responsibilities

The Statement of Work described in Attachment 3 provides detailed information for prospective bidders on the work they are expected to do. The contractor's major responsibilities are summarized as follows:

- Obtain information on which telephone exchanges are in use within the FMR area, and whether the technology in use will allow the use of mechanized pre-screening for nonworking numbers.
- Based on area data, the guidance provided in this material, and the contractor's own experience, estimate the total number of telephone numbers that need to be called to achieve 200 completed interviews of recent movers renting one- and two-bedroom units.
- Complete the telephone survey and all data processing within 6 weeks of contract award, or such other time as specified in the contract, using telephone numbers purchased from a vendor of list-assisted samples, and keeping records of the telephone numbers called and the responses obtained.
- Convert each two-bedroom contract rent into a two-bedroom gross rent by adding the appropriate utility allowance from the relevant HA utility schedule.
- Convert one-bedroom contract rents into two-bedroom equivalent gross rents by: (1) adding the appropriate utility allowance for a one-bedroom unit from the HA utility schedule; and (2) multiplying this sum by the ratio of two-bedroom to one-bedroom FMRs published in a recent *Federal Register* publication.
- Calculate a 40th percentile two-bedroom rent based on the two-bedroom and two-bedroom equivalent gross rent estimates.
- Calculate the response rates specified in the Statement of Work.
- Provide the HA and HUD with all required information on the survey responses and rent calculation.

8. Selecting a Contractor

For FMR telephone estimates to be statistically credible, they must be based on truly scientific samples and very high response rates. To achieve these objectives, HUD requires the use of samples based on either a list-assisted or a Mitofsky-Waksberg RDD telephone survey methodology. Both methods produce reliable results, but the list-assisted methodology is recommended because it is less complex and less expensive than the other approach.

Attachment 4 is a list of contractors who appear to have the interest, equipment, and experience needed to conduct RDD telephone surveys. You are not restricted to this list and are encouraged to consider obtaining bids from other survey firms. You should require each bidder to list all RDD surveys conducted in the preceding 2 or so years, including ones that were never completed or sent to HUD, and should check all sponsoring agencies. **HUD's experience has been that many firms that lack experience with large-scale list-assisted RDD surveys are likely to underestimate the complexity and cost of such a survey.** Firms that lack the requisite experience or that seriously underbid may default, produce inadequate data, or complete the survey too late for the results to be useful. It is in the interest of both the HA and the survey firms to have bidders carefully review the requirements of the Statement of Work (Attachment 3) and the other materials provided in this guide.

You should contact at least three telephone survey firms and request written fixed-price bid proposals. A complete copy of this guide should be sent to each firm interested in submitting a bid. You should advise them about when they must complete the survey after the contract is awarded—6 weeks is usually a realistic goal. In deciding on the required timing of the survey, you should keep in mind the comment period specified in the *Federal Register*.

When you review bids, HUD recommends that you apply a scoring system such as in Attachment 7. Firms that routinely conduct surveys of similar sizes within similar timeframes are the best candidates for this type of survey and should be rated accordingly. Firms that lack this qualification may be capable of doing a good job but pose higher risks of not completing the work on time and within budget. The following factors should be considered when reviewing the qualifications of the firms submitting bids:

- How large is the firm and what types of surveys has it conducted?
- Does the firm have a computerized telephone system that keeps track of which numbers have been called and which need to be redialed?

- Does the firm have online questionnaire response entry and data storage equipment?
- Does the firm have a resident statistician or a working relationship with one?
- Is the firm large enough to conduct this survey within the desired time period? You should verify all claims of capacity by calling HAs that had recently used the contractor's services.¹¹
- Has the firm ever conducted an RDD rent survey for HUD or an HA?
- In deciding which firms to seek bids from, you should be aware that a firm located far away may be as competitive as one that is nearby, because long-distance charges are only slightly related to distance.

As soon as you have awarded a contract, you should give the survey firm a copy of the HA's utility schedule. For FMR areas with different Section 8 utility schedules from a number of HAs, the contractor should identify as much as possible which telephone exchanges are in which HA's jurisdiction. This information should then be used to determine which utility schedule applies when calculating gross rents. For multi-HA jurisdictions, HUD recommends that you consider using the utility schedule of the jurisdiction's largest HA as the schedule for the entire area; you may, however, choose to use separate utility schedules.

If there is no Section 8 allowance for a particular utility, you should make an estimate and describe how you made it. This is most often applicable to air conditioning, which some Section 8 utility allowance schedules omit as a separate item and do not include under the category "Other Electric Lighting, Refrigeration, Etc." You should use the methods described in the HUD utility allowance schedule instructions, or call your local electric company. You may also call the author for an approximate allowance, based on a Department of Energy survey.

9. Monitoring the Contractor

An HA can monitor contractor performance a number of ways to minimize misunderstandings and increase the likelihood that a good rent estimate is produced:

¹¹ A list of recently conducted HA-sponsored surveys may be found in the 3rd quarter issue of HUD's publication U.S. Housing Market Conditions, obtainable by calling HUD User at 1-800-245-2691. However, firms not represented on this list may be fully capable of doing the job, and should not be ruled out.

- Enter into a written, contractual agreement that specifies that the contractor will perform all responsibilities identified in the Statement of Work.
- Require adherence to a fixed price payment schedule; HUD suggests the following schedule for contractors that expect payment before completion:
 1. Payment of 20 percent in advance.
 2. 40 percent upon completion of the required number of telephone calls.
 3. 20 percent upon receipt of the 40th percentile rent estimate and other data and analyses required in the Statement of Work.
 4. The final 20 percent after HA staff members verify the results reported for a small number of cases (15–20) and ensure that the required data and analysis materials were provided in a satisfactory form.
- Call the contractor once a week to monitor progress.
- Confirm that all submissions required in the Statement of Work were fulfilled before making the final payment to the contractor if partial payments are made, or before making the full payment if only one payment is involved. To fulfill the terms of the Statement of Work, the contractor is required to submit two copies of the following:
 1. The HA utility schedule(s) used, and a description of any modifications made for the purpose of this survey.
 2. An IBM PC-compatible floppy disk file in ASCII or LOTUS format which contains a record of *all* telephone numbers called and the response designation assigned (for example, nonworking number, business, owner-occupied, one- or two-bedroom market rate renter, other renter, and unresolved status; we suggest the contractor use the codes specified in the Statement of Work's section on response rates).
 3. An IBM PC-compatible floppy disk file in ASCII or LOTUS format which contains the following information on all eligible one- and two-bedroom units contacted, both those occupied by recent movers and those occupied by other renters: (a) the telephone numbers; (b) all

questionnaire responses; (c) the utility amounts added, if any, to the rent response; (d) the estimated gross rent for each one- and two- bedroom unit included; and (e) the two-bedroom equivalent rent of each one- bedroom unit.

10. What Must Be Delivered to HUD

In order for HUD to consider an FMR appeal, the HA (or its contractor) must submit a copy of all the information the contractor was required to provide by the Statement of Work. These items were summarized in the preceding section.

Based on HUD's analysis of these items, the final FMR may be adjusted from what was originally proposed. Under HUD statutes and regulations, a revised FMR can be used only after it is published in the *Federal Register*, so any revision will not become effective until it is published.

HUD typically publishes proposed FMRs for public comment in April or May and completes its review of all comments in July. HUD is aware that it is difficult to award a contract and obtain results during a 3-month period, and has a policy of accommodating late results to the maximum extent possible. If results are received too late to be published as final FMRs, they will be used at the first opportunity when the next round of FMRs are prepared. HUD will not delay publication of the *Federal Register* to accommodate late comments, nor will it publish FMRs more than once a year (effective October 1).

Attachment 1: Survey Questionnaire

The following questionnaire has been used successfully by HUD; it incorporates all recent changes. Because interviewing is done by phone with a computerized (CATI) system, the text below is only a guide to what actually appears on the computer screens; CATI systems automatically set up skip patterns.

U.S. Department of Housing and Urban Development FY2000 FMR Area-specific Survey Questionnaire

Introduction and Screening:

Hello, my name is _____. I am calling from [contractor] on behalf of [PHA name]. We are conducting a telephone survey on housing costs in your area.

1. Is this a residential household, such as an apartment, a house, or a mobile home?
[NOTE: It is NOT a dormitory, hospital room, nursing home, barracks, cellular telephone.]

1	Yes	
2	No	[Terminate]

2. Are you renting this property, or do you own it?

1	Rent this property	
2	Own this property	[Terminate]

3. I need to speak with someone 18 years old or older who knows about your household's housing costs. Would that be you?

1	Yes	[Go to 5]
2	No	

4. Is someone who does know available to come to the phone?

1	Yes	[Read introduction for second respondent]
2	No	[Schedule a callback for a time when someone will be available. Make sure to ask for the first name of the person to ask for at that time.]

Introduction for Second Respondent

Hello, my name is _____. I am calling from [contractor] on behalf of [PHA name]. We are conducting a telephone survey on housing costs in your area. The person I just spoke with said you could help me with some questions about your housing costs.

5. First, how many bedrooms do you have? That is, how many bedrooms would your residence be advertised as having if it were for rent?

[NOTE: Include rooms that are meant to be bedrooms even though they may not be used as

bedrooms now -- bedrooms converted to dens, storage areas, etc.]

- 1 One
- 2 Two
- 3 Three [If metropolitan area, terminate. If nonmetropolitan area, continue]
- 4 Four or more [Terminate]
- 5 None; efficiency [Terminate]

6. Do you consider this your permanent residence, where you could live all year, or a vacation or seasonal residence?

- 1 Permanent residence
- 2 Vacation/seasonal residence [Terminate]
- 3 DK/Refused

6a. Apart from utility costs, does this unit rent for the same amount every month of the year?

- 1 Yes [Go to 7]
- 2 No
- 3 DK/Refused [Go to 7]

6b. Why is that? Is it because:

- 1 Owners charge different rents during the summer or winter vacation season?
- 2 Owners charge different rents during the school year?
- 3 Because of a variation in utility costs, such as air conditioning or heating?
- 4 Other, specify _____
- 5 DK/Refused

7. Is your building owned by a public housing authority?

- 1 Yes [Terminate]
- 2 No
- 3 DK/refused

8. Is your residence owned by a relative?

- 1 Yes [Terminate]
- 2 No
- 3 DK/refused

9. Was the building you live in built within the last two years?

- 1 No - over 2 years old
- 2 Yes- built within last two years [Terminate]
- 3 DK/refused [Terminate (after probing)]

10. Do you perform any work for your landlord in exchange for a reduction in your rent?

- 1 Yes
- 2 No [Go to 12]
- 3 DK/refused [Go to 12]

11. Does this involve more than maintenance or upkeep of your residence?
- 1 Yes [Terminate]
 - 2 No
 - 3 DK/refused
12. How long have you lived at this residence?
- 1 Less than 15 months [Increment recent mover quota cell]
 - 2 More than 15 months
13. Does another family or individual live in the unit who pays part of the rent?
- 1 Yes
 - 2 No [Go to 17]
 - 3 Don't Know
 - 4 Refused
14. How much is **your** rent? Please do not include any **separate** parking or utility costs.
[NOTE: Record amount for the respondent's portion of the total rent for the unit.]
- 1 Amount Given _____ [Round to the nearest dollar]
 - 2 DK [Probe: "Is there someone else in the household who could tell me about your housing costs?" If no, terminate]
 - 3 Refused [Read refusal statement]
15. How much rent does the **other** person or family pay?
[NOTE: Record amount for the portion of the total rent paid by all other renters in the unit.]
- 1 Amount Given _____ [Round to the nearest dollar] [Go to 16]
 - 2 DK [Probe: "Is the other person available to tell me about their housing costs?" If no, terminate. If yes, read introduction for other respondent and go to 15B.]
 - 3 Refused [Read refusal statement]

Introduction for Other Respondent

Hello, my name is _____. I am calling from [contractor] on behalf of [PHA name]. We are conducting a telephone survey on housing costs in your area. The person I just spoke with said you could help me with some questions about your housing costs.

15B. How much is **your** rent? Please do not include any **separate** parking or utility costs.

- 1 Amount Given _____ [Round to the nearest dollar]
- 2 DK [If no, terminate.]
- 3 Refused [Read refusal statement]

16. I figure that the **total** monthly rent for your residence is \$_____. Is that correct?

- 1 Yes [Go to 18]
- 2 No [Go back to 14]

17. How much is the total monthly rent for your residence? Please do not include any **separate** parking or utility costs.

- 1 Amount Given _____ [Round to the nearest dollar]
- 2 DK [Probe: "Is there someone else in the household who could tell me about your housing costs?" If no, terminate]
- 3 Refused [Read refusal statement]

Refusal Statement:

The results of this survey will be used by the U.S. Department of Housing and Urban Development to determine the cost of rented housing in your area. This information will help ensure that rental assistance is provided as cost-effectively as possible to area residents who most need it.

18. Do you or the people in your rental unit have to report the household income to someone every year so that your rent can be adjusted?

- 1 Yes
- 2 No [Go to 21]
- 3 DK

19. Does this mean that part of your rent is paid by a federal, state or local program depending on how much your income is?

- 1 Yes
- 2 No [Go to 21]
- 3 DK/refused [Go to 21]

20. How much would the total monthly rent be without the rent reduction?
[Amount should be greater than rent reported in question #16 or #17.]

- 1 Amount given _____ [Round to nearest dollar]
- 2 DK [Probe: "Could anyone else in your household tell us what this amount is?"]
- 3 Refused

21. Which one of the following best describes the structure where you live:

[NOTE: PLEASE READ LIST]

- 1 Apartment building with 5 or more units,
- 2 Single family dwelling (detached),
- 3 Duplex,
- 4 Apartment building with 2 to 4 units,
- 5 Townhouse, rowhouse,
- 6 Mobile home?
- 7 Other, specify _____ [Go to 22]
- 8 DK/refused [Go to 22]

22. Is this unit detached, or is it attached to other units?

- 1 Detached
- 2 Attached
- 3 DK/refused

23. Is this the only telephone number that rings at your residence? We are asking about Non-Business telephones.

- 1 Yes [Go to 25]
- 2 No

24. How many different Non-Business telephone numbers, not phones, ring into your household?

- 1 Amount Given _____
- 2 DK
- 3 Refused

25. In addition to your rent, do you pay separately for any utilities such as heat, air conditioning, lights, water, or cooking fuel or trash collection? [If no, PROBE: "Do you pay any utility bills?"]

- 1 Yes
- 2 No [Go to Location]
- 3 DK/refused

26. Is the cost of heating included in your rent, or do you pay separately for heating fuel?

- 1 Included in rent [Go to 28]
- 2 Pay separately
- 3 Unit does not have heating system [Go to 28]
- 4 DK/refused [Go to 28]

27. What **primary** type of fuel do you use for heating?

- 1 Electricity
- 2 Natural gas
- 3 Bottled gas (propane, butane, petrolane)
- 4 Fuel oil
- 5 Other, specify _____
- 6 DK/refused

28. Is air conditioning included in your rent, or do you pay separately for air conditioning?

- 1 Included in Rent [Go to 30]
- 2 Pay separately
- 3 Unit does not have air conditioning [Go to 30]
- 4 DK/refused [Go to 30]

29. What **primary** type of utility do you use for air conditioning?

- 1 Electricity
- 2 Natural gas
- 3 -----
- 4 -----
- 5 Other
- 6 DK/refused

30. Is cooking fuel included in your rent, or do you pay separately for cooking fuel?

- 1 Included in Rent [Go to 32]
- 2 Pay Separately
- 3 Unit does not have a cooking facility [Go to 32]
- 4 DK/refused [Go to 32]

31. What **primary** type of utility do you use for cooking?

- 1 Electricity
- 2 Natural gas
- 3 Bottled gas (Propane, butane, petrolane)
- 4 -----
- 5 Other, specify _____
- 6 DK/refused

32. Is the cost of lighting and refrigeration included in your rent, or do you pay separately for lighting or refrigeration?

- 1 Included in rent
- 2 Pay separately
- 3 Unit does not have lighting or refrigeration
- 4 DK/refused

33. Do you pay a separate monthly rental fee for a range or refrigerator?

- 1 Yes
- 2 No
- 3 DK/refused

34. Is hot water included in your rent, or do you pay separately for hot water?

- 1 Included in rent [Go to 36]
- 2 Pay separately
- 3 Unit does not have hot water [Go to 36]
- 4 DK/refused [Go to 36]

35. What **primary** type of utility do you use for heating water?

- 1 Electricity
- 2 Natural gas
- 3 Bottled gas (propane, butane, petrolane)
- 4 Fuel oil
- 5 Other, specify _____
- 6 DK/refused

36. Is a water or sewage fee included in your rent, or do you pay separately for water and sewage?

- 1 Included in rent
- 2 Pay separately
- 3 Unit does not have water and sewage
- 4 Water and sewage supplied by city
- 5 DK/refused

37. Is trash collection included in your rent, or do you pay separately for trash collection?

- 1 Included in rent
- 2 Pay separately
- 3 Unit does not have trash collection
- 4 Trash collection supplied by city
- 5 DK/refused

38. Would you please tell me the city or town where your housing unit is located?

- 1 Record city or town _____
- 2 Refused

39. Could you please tell me your zip code?

Record zip code _____

Those are all the questions I have for you.
Thank you very much for cooperating with the survey.

**Attachment 2:
Request for Bids Letter**

<HA NAME> <DATE>
<ADDRESS>
<CITY> <STATE> <ZIP>

SUBJECT: Request for Fixed Bid to Conduct Fair Market Rent Telephone Survey
Closing Date: _____, 5:00 p.m.

TO ALL OFFERORS:

The Housing Agency of _____ requires assistance in obtaining a statistically valid and reliable estimate of Fair Market Rents for all of the counties/jurisdictions which comprise the FMR area, as defined by HUD. Therefore, we are inviting your organization to submit a proposal to carry out a survey to provide such data.

The Statement of Work provided in this document contains background information about the need for the services of a qualified organization that can implement a standardized survey method to estimate Section 8 Fair Market Rents for the target area. If questions arise while preparing your proposal, please call me at _____ for assistance.

Your proposal must describe how you would carry out the tasks described in the Statement of Work. The description of the staff proposed for this effort should indicate their experience in performing such a survey. Please identify the sponsors of previous telephone surveys conducted by your organization so we can contact them to obtain references; these must include all FMR surveys, regardless of whether they were completed or sent to HUD. You should assume that the term "*recent mover*" refers to renters who have moved within the past 15 months.

The Contract Administrator, _____, is the only individual who is authorized to commit this agency to the expenditure of funds in connection with this procurement. We plan to award a fixed-price contract for the survey on or about _____; the survey and all deliverables must be received by us at the latest on _____.

We look forward to receiving a proposal from your organization.

Sincerely,

Contract Administrator

Enclosed: *Random Digit Dialing Surveys: A Guide to Assist Larger Housing Agencies in Preparing Fair Market Rent Comments*

Attachment 3:
Statement of Work
for Random Digit Dialing Surveys of U.S. Department of Housing and Urban
Development Fair Market Rents ¹²

I. Background

An appeals process exists for Housing Agencies (HAs) to use when they believe their Section 8 Existing Fair Market Rents (FMRs) are too high or too low. To submit an appeal to HUD, the HA needs to obtain rental cost data that are statistically representative of the entire FMR area and show that a change is warranted.

For areas with 500 or more Section 8 units under management, HUD recommends a list-assisted random digit dialing (RDD) telephone survey of local area rents. The skills and equipment needed to conduct this type of survey makes it desirable to use a survey organization that is experienced in computer-assisted telephone interviewing (CATI).

HUD's FMR standard is based on the rents paid by recent movers—those who have moved within the past 15 months—renting two-bedroom units that must have been built more than 2 years ago and that meet Section 8 Housing Quality Standards. Public housing units are excluded in making these estimates, as are subsidized units for which the market rate rent cannot be obtained. HUD does not recommend, however, that exactly the same definition be used for HA surveys, because a very large number of residences would need to be contacted to obtain a reasonable sample of eligible two-bedroom renters who had recently moved. Instead, HUD's telephone survey methodology permits the use of most one- and two-bedroom rentals and gives HAs the option of defining recent movers as those who have moved within the past 2 years.

The contractor is responsible for carrying out all aspects of the survey effort. The procedures to use are explained in the following sections, and include information on the selection of telephone numbers, call-back and follow-up procedures, call scheduling, and data processing.

It is assumed that the sample of telephone numbers used in the survey will be purchased from a qualified vendor of list-assisted samples, who will generate lists of numbers in accordance with the procedures described in this guide. Any exception to these procedures requires prior HUD approval, from the Economic and Market Analysis Division, at (202) 708-0590.

¹²The complete HUD publication *Random Digit Dialing Surveys: A Guide to Assist Larger Housing Agencies in Preparing Fair Market Rent Comments* is incorporated by reference into this Statement of Work. It also called the "RDD Guide."

II. Sample Design and Size

Two hundred (200) completed interviews of eligible one- and two-bedroom market-rate renters who had recently moved are required. Information on otherwise eligible one- and two-bedroom market-rate renters must also be collected. Attachment 6 provides examples of HUD's experiences with sample size requirements, and Section 6 of the RDD Guide suggests how to roughly estimating sample sizes. **Contractors must use their own best judgement as to the level of effort required to obtain the necessary 200 recent-mover completed interviews.**

III. Computation of Response Rates

For this survey, a set of response rates needs to be computed and provided to the survey sponsor and HUD. While there is no universal definition of response rates, the following set of rates is useful and internally consistent. These six rates are briefly described below, and described mathematically in the table on the next page. The completion codes all refer to the status of the sample number after *5 attempts*.

- **Resolution rate.** The proportion of numbers answered by a person, or determined by the interviewer to be nonworking. The target resolution rate is 80 percent or higher.
- **Residential Rate.** The proportion of resolved numbers determined to be residential (that is, not a college dormitory, hospital room, hall phone, etc.)
- **Response rate.** The proportion of residential numbers willing to be interviewed. Excluded are hard refusals and continued delaying tactics, or a language barrier where no interviewer speaking that language is available.
- **Screening Rate.** The proportion of willing respondents who are eligible to be surveyed, regardless of when they moved into their unit.
- **Completion Rate.** The proportion of eligible, willing respondents with completely usable surveys. This excludes responses with unusable rent or utility information, even after followup.
- **Overall Rate.** The proportion of all sample numbers which result in a completed interview. Mathematically, this is the product of all previous rates.

Random Digit Dialing Surveys: A Guide for Large Housing Agencies

RDD RESPONSE RATES FOR SELECTED METROPOLITAN FMR AREAS

Completion Code	Description	Cases	RESOLUTION RATE		RESIDENTIAL RATE		RESPONSE RATE		SCREENING RATE		
			Num.	Den.	Num.	Den.	Num.	Den.	Num.	Den.	Num.
0	Phone number not used 130	130		130							
1	No Answer 783	783		783							
2	Busy 19	19		19							
3	Answering Machine 456	456		456							
4	Business Phone 1,258	1,258	1,258	1,258		1,258					
5	Non-Working Number 3,566	3,566	3,566	3,566		3,566					
6	Bad Sample 5	5		5							
7	Language Barrier 25	25		25							
8	Spanish & no interviewer available 60	60	60	60	60	60		60			
9	Terminate at mid-interview 3	3	3	3	3	3	3	3	3	3	3
3 407	COMPLETED INTERVIEW (Mover/Stayer) 407	407	407	407	407	407	407	407	407	407	407
11	Call back some other time 56	56	56	56	56	56		56			
12	Unable to be interviewed 11	11	11	11	11	11		11			
13	No eligible respondent available 30	30	30	30	30	30		30			
14	No elig resp during time period 4	4	4	4	4	4		4			
15	Hard refusal 298	298	298	298	298	298		298			
20	Call next time/resistant 191	191	191	191	191	191		191			
21	Term: Non-home phone 82	82	82	82	82	82	82	82			82
22	Term: Non-rental 3,069	3,069	3,069	3,069	3,069	3,069	3,069	3,069			3,069
23	Term: Not 1 or 2 bedrooms 259	259	259	259	259	259	259	259			259
24	Term: Not primary residence 19	19	19	19	19	19	19	19			19

Random Digit Dialing Surveys: A Guide for Large Housing Agencies

	25	Term: Built in last 2 years	25	25	25	25	25	25	25	25	25
	26	Term: Owned by HA	58	58	58	58	58	58	58	58	58
	27	Term: Refused rent question	7	7	7	7	7	7	7	7	7
7	28	Term: Owned by relative	37	37	37	37	37	37	37	37	37
	29	Term: Missing util/other data	3	3	3	3	3	3	3	3	3
3	88	Machine: business/nonworking 1/	1,187	1,187	1,187		1,187				
		1,187									
Totals			12,048	10,630	12,048	4,619	10,630	3,969	4,619	420	3,969
420	407	12,048									

RESPONSE RATES
0.034

	0.882	0.435	0.859	0.106	0.969
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Resolution: Proportion of numbers answered by a person, or determined by interviewer to be nonworking
 Residential: Proportion of resolved numbers determined to be residential
 Response: Proportion of residential numbers willing to be interviewed
 Screening: Proportion of willing respondents eligible for survey (includes Movers and Stayers)
 Completion: Proportion of eligible, willing respondents with completely usable surveys
 Overall: Proportion of all sample numbers which result in a completed interview (product of all previous rates)

Completion Codes: Result after 5 attempts to contact

Note 1/: "Machine" includes numbers eliminated by automated reference to Business White Pages, as well as numbers determined to be nonworking during automated pre-screening.

Source: Data from 10 metropolitan FMR surveys conducted in 1993-94 by Macro International, Burlington, VT, under contract with HUD. Rates vary widely, even within size category. Nonmetropolitan and very small metropolitan areas are likely to require larger samples.

IV. Estimation of the Fair Market Rent

The estimation of the Fair Market Rent requires calculating the gross rent for each eligible household, and then estimating the 40th percentile of the distribution of gross rents.

A. Calculation of Gross Rent

The gross rent of a rental unit is defined as the contract rent plus utility costs, if any, paid directly by the tenant.

If the tenant pays for all or some of the utilities, the gross rent is estimated by adding to the contract rent the appropriate Housing Agency Section 8 utility allowance for each utility paid by the tenant. Questionnaire items 17 through 26 identify the utilities and services paid for by the tenant which might not be part of the contract rent. For units where tenants pay for some or all of the utilities, the responses provided should be matched with the relevant HA utility schedule to impute utility costs.¹³

For one-bedroom rental units, a two-bedroom-equivalent gross rent is calculated. This conversion is done by multiplying the one-bedroom gross rent by the 1990 Census ratio of the median two-bedroom gross rent to the median 1-bedroom gross rent for the FMR area. This relationship may be obtained from the May 6, 1993, *Federal Register*, which contains proposed FMRs that make use of 1990 Census bedroom size ratios. (Survey sponsors should have a copy of this information for their area; more recent *Federal Registers* may also be used.)

B. Estimation of the 40th Percentile Survey FMR

The FMR will be estimated from the combined distribution of two-bedroom and two-bedroom-equivalent gross rents. This is done by placing all gross rents in rank order, from lowest to highest. The 40th percentile case can then be calculated by taking 40 percent of the total number of cases and then looking up the corresponding gross rent value. For instance, with 100 cases the 40th percentile would be the 40th case from the lowest, just as with 400 cases it would be the 160th case ($.40 * 400 = 160$). Where the 40th percentile case is not a round number, the 40th percentile should be calculated

¹³ Some utility schedules do not include an allowance for tenant-paid air conditioning. In such cases, if any of the respondents indicate paying for air conditioning, the contractor and the HA must work together to estimate such an allowance, and tell HUD how it was estimated. They may also contact HUD for a rough approximation based on nationwide survey data.

by interpolation. The FMR estimate is prepared by trending the 40th percentile survey estimate to April 1 of the FMR year, at 2.98 percent per year.

Calculating the variance associated with a 40th percentile rent estimate is relatively complex. The percentile variance estimate can be approximated with the formula found in Section 6.4 of the RDD Guide. If the recommended procedures are followed, the resulting recent-mover sample estimate should normally have a 95 percent likelihood of being within 4 to 5 percent of the true respondent population value. If the RDD results are significantly higher than HUD's data, and if the survey appears to have been correctly executed, HUD is likely to accept them. On the other hand, if the survey results and the Census distribution are similar enough to suggest that they might in fact represent the same rental distribution, HUD reserves the right to decide which one to use.

V. Data Collection and Processing Procedures

A. Data Collection Procedures

Whenever possible, an experienced staff of interviewers should be employed. If it is necessary to hire additional interviewers, applicants should demonstrate an acceptable level of traits identified as necessary for a successful telephone interviewer.

Interviewers should be trained in general interviewing techniques, review of the questionnaire, and structured practice sessions using mock interviews. Interviewers who are unfamiliar with computer-assisted telephone interviewing or other software and hardware used by the contractor will need additional training.

Data collection should begin immediately after interviewer training and will require completion of the following activities:

- Screening the random digit dialing sample telephone numbers to identify working residential numbers.
- Screening the identified working residential households to determine eligibility.
- Conducting interviews with a household member, 18 years of age or older, for as many households as needed to obtain a completed sample of 200 eligible recent movers.

At least five telephone attempts to identify working residential numbers and five attempts to screen for eligibility and collect the interview data are to be made at varying times of the day and varying days of the week. At least two attempts must be made on weekend days and at least two during evening hours. Each attempt to contact an occupant through a telephone number must be documented, indicating the date and time of the attempt and a code describing the result of the attempt.

Interviewers should be constantly supervised. At least 10 percent of the interviews conducted by each interviewer should be monitored by a telephone supervisor if a computer-assisted telephone interviewing (CATI) system is used. In addition, during the first 2 days of work, interviewers should be intensively monitored. If the telephone calling is not done using a computerized system, at least one supervisor per five interviewers is required to closely monitor the interviewers' implementation of the sample design.

B. Methods for Maximizing Response Rates

The following procedures are recommended to maximize response rates:

- To the degree possible, use experienced telephone interviewers who have proven their ability to obtain cooperation from a high proportion of sample members.
- Train interviewers in approaches that will help gain respondent cooperation.
- Provide interviewers with a comprehensive set of questions and answers that will provide encouraging responses to questions that respondents may ask (see Attachment 8 for suggestions).
- Maintain a high level of monitoring and direct supervision to quickly identify and assist interviewers experiencing low cooperation rates.
- Provide hesitant respondents with a toll-free number to discuss the study with designated project staff members.
- Review all refusal cases and make special efforts to obtain completed interviews whenever feasible.

C. Data Processing Procedures

All completed interviews must be edited for completeness and usability. Interviews failing to meet the acceptance criteria are resolved by recontacting the respondent. If such editing is not done automatically by a CATI system, manual editing of all responses by someone other than the interviewer is required. In addition, an initial re-edit of 10 percent of each editor's work and subsequent sample edits should be conducted early in the editing process.

If data are collected manually rather than through CATI, they must be keyed into a data processing system. This process should:

- Check all items for permissible ranges and codes.
- Verify all check digits on the critical IDs to ensure consistent entry.
- Verify that any items defined as critical are not blank.
- Key all written questionnaire data twice as a quality control measure, with the re-keyed data compared to the original and differences resolved by looking at the written forms.

After the data are in machine-readable format, a machine edit is done to check each item for a specified range of values, illegal characters, embedded blanks, and for specified consistency between data items. Additional checks for skip patterns in each questionnaire are also made.

D. Schedule

It normally takes an experienced survey contractor about 1–2 weeks to prepare for data collection, 2 weeks to complete the data collection, and an additional week for the analysis of data, preparation of a report, documentation, and delivery of this information to the sponsor. Sponsoring Housing Agencies are being encouraged to specify a total time limit of 6 weeks from contract execution to final payment.

E. Deliverables

The contractor is required to submit the following items:

1. The name of the vendor that provided the list-assisted sample used and the characteristics of the sample purchased.
2. The total sample size, before and after mechanized pre-screening (number of telephone numbers contacted or for which contacts were attempted.)
3. The number of completed one- and two-bedroom interviews of eligible renter households and the number of completed interviews for eligible recent-mover renter households.
4. The survey's response rates, as defined above.
5. The HA Section 8 utility schedule(s) used in the survey.
6. The contractor's estimate of the 40th percentile rent for two-bedroom equivalent eligible recent mover units, optionally trended to April 1 of the FMR fiscal year.
7. Frequency counts of the following items: Number of bedrooms; structure type; type of fuel used for heating; payment for air conditioning; payment for water and sewage; payment for trash collection.
8. An IBM PC-compatible floppy disk file in Lotus, dBaseIII, or ASCII format which contains a record of *all* telephone numbers called and the response codes (as specified in the section on response rates.)
9. An IBM PC-compatible floppy disk file in Lotus, dBaseIII, or ASCII format which contains the following information on all eligible one- and two-bedroom units contacted and successfully interviewed, both units occupied by recent movers and those occupied by other renters:
 1. Telephone numbers.
 2. All questionnaire responses.
 3. Utility amount added, if any, to the rent response.
 4. Estimated gross rent for each one- and two-bedroom unit included.
 5. Two-bedroom equivalent rent of each one-bedroom unit.

Attachment 4¹⁴

Partial Listing of Firms Claiming Automated RDD Capabilities	
Abt Associates Attn: Sharon Christiansen 55 Wheeler Street, Cambridge, MA 02138 617/492-7100 e-mail: sharon_christiansen@abtassoc.com	Nordhaus Research, Inc Attn: Allan Benedict 20300 W. Twelve Mile Road #102, Southfield, MI 48076 810/827-2400 e-mail: alb@nordhaus.mhs.compuserve.com
Voter/Consumer Research Attn: Jan Van Lohuizen 4915 St Elmo Street #505, Bethesda, MD 20814 301/907-7551	Research Triangle Institute Attn: Donald Camburn P O Box 12194, Research Triangle, NC 22709 919/541-6696; e-mail: camburn@rti.org
Macro International Attn: Greg Mahnke 126 College Street, Burlington, VT 05401 802/863-9600; e-mail: mahnke@macroint.com	Communications Software, Inc Attn: Ashoke Bose 5850 E. Comsoft Place, Suhuarita, AZ 85629 520/410-6323; e-mail: ash@csi-us.com
Bellomy Research Attn: John Sessions 2150 Country Club Road, #300, Winston-Salem, NC 27104 336/721-1140; e-mail: bellomy@interpath.com	National Survey Research Center Attn: Alan Dutka 5350 Transportation Blvd., #19, Cleveland, OH 44125 216/518-2903; e-mail: adutka@nsrc.com
Institute for Survey Research, Temple University Attn: Mel Kollander 4521 Saucon Valley Court, Alexandria, VA 22312 703/642-8079; e-mail: mellk@erols.com	SPARTA Consulting Corporation Attn: John G. Hayes 4720 Montgomery Lane, #310, Bethesda, MD 20814 301/656-6600; e-mail: jghayes@spartacc.com
R T Nielson Company Attn: Ron Neilson P O Box 11481, Salt Lake City, UT 84147 801/359-1345; e-mail: Ron@rtneilson.com	Schulman, Ronca, & Bucuvalas, Inc Attn: John Boyle 8403 Colesville Road #820, Silver Spring, MD 20910 301/608-3883; e-mail: J.Boyle@srbi.com
Quality Controlled Services Attn: Curtis P. Johnson 1297 N. Highway Drive, Fenton, MO 63099 215/639-8035; e-mail: johnsoncp@qcs.com	Social & Economic Sciences Research Center (SESRC) Attn: John Tarnai Washington State University, Pullman, WA 99164-4014 509/335-1511; e-mail: tarnai@wsu.edu
RMA Research Attn: James Robinson 1208 Elkhorn Street, Sioux Falls, SD 57104-0218 800/456-0701; e-mail: jimr@rma-inc.com	Survey Research Unit, Univ. of North Carolina Attn: Stephanie Reed 730 Airport Road, Suite 107, Chapel Hill, NC 27599 919/962-2450; e-mail: stephanie_reed@unc.edu

14 Neither HUD nor the U.S. Government makes any representation as to the accuracy or completeness of this list, nor about the quality of these firms' work.

Fair Market Rents For The Section 8 Housing Assistance Payments Program

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FMR Standard

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U.S. Department of Housing & Urban Development
Office of Policy Development & Research
August 1998 (rev.)

Overview

Fair Market Rents (FMRs) determine the eligibility of rental housing units for the Section 8 Housing Assistance Payments program. Section 8 Rental Certificate program participants cannot rent units whose rents exceed the FMRs. FMRs also serve as the payment standard used to calculate subsidies under the Rental Voucher program. The U.S. Department of Housing and Urban Development (HUD) annually estimates FMRs for 357 metropolitan areas and 2,347 nonmetropolitan county FMR areas.

FMR Standard

FMRs are gross rent estimates. They include the shelter rent plus the cost of all utilities, except telephones. HUD sets FMRs to assure that a sufficient supply of rental housing is available to program participants. To accomplish this objective, FMRs must be both high enough to permit a selection of units and neighborhoods and low enough to serve as many low-income families as possible. The level at which FMRs are set is expressed as a percentile point within the rent distribution of standard-quality rental housing units. The current definition used is the 40th percentile rent, the dollar amount below which 40 percent of the standard-quality rental housing units are rented. The 40th percentile rent is drawn from the distribution of rents of all units occupied by recent movers (renter households who moved to their present residence within the past 15 months). Public housing units and units less than 2 years old are excluded.

Data Sources

HUD uses the most accurate and current data available to develop the FMR estimates. Three sources of survey data are used:

- (1) *The 1990 decennial Census*, which provides statistically reliable rent data for use in establishing base year FMRs.
- (2) *American Housing Surveys (AHS)*, which are conducted by the Bureau of Census for HUD and whose accuracy is comparable to that of the decennial Census. AHSs enable HUD to develop revisions between Census years for the 44 largest metropolitan areas that are surveyed on a revolving schedule of 11 areas annually.
- (3) *Random digit dialing (RDD) telephone surveys*, which are based on a sampling procedure that uses computers to select statistically random samples of telephone numbers, dial and keep track of them, and tabulate the responses to the calls. RDD surveys are conducted for HUD by a contractor to: (a) develop the annual HUD regional gross rent change factors; and (b) develop 40th percentile FMR estimates of about 60 selected FMR areas per year. RDD regional rent change factors are developed annually for the metropolitan parts (exclusive of metropolitan areas with their own Consumer Price Index [CPI]) and nonmetropolitan parts of each of the 10 HUD

regions.

Base year FMR estimates are updated and trended forward using CPI data for rents and utilities or HUD regional updating factors developed from the RDD surveys. CPI data are available for 99 metropolitan FMR areas. The RDD regional factors are used to update the base year estimates for all FMR areas that do not have their own CPI survey.

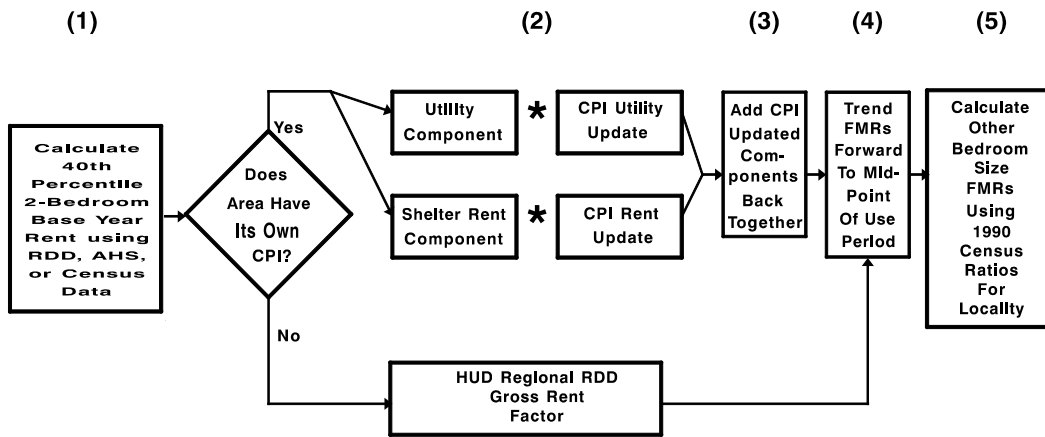
FMR Areas

HUD defines FMR areas as metropolitan areas and nonmetropolitan counties. With a few exceptions, the most current Office of Management and Budget (OMB) definitions of metropolitan areas are used. HUD uses the OMB definitions because of the generally close correspondence between them and housing market areas. FMRs are intended to be housing market-wide rent estimates that provide housing opportunities throughout the geographic area in which rental units are in direct competition. Exceptions include a small number of metropolitan areas whose revised OMB definitions encompass areas that are larger than HUD's definitions of housing market areas.

Calculation Process

HUD uses similar procedures to calculate FMRs, whether they are based on AHS metropolitan area surveys, decennial Census data, or RDD surveys. The main difference is in the way *base year* FMR estimates are developed from each of the sources of survey data. The procedures used to calculate FMRs and the differences in the base year estimates are explained below. Figure 1 provides a flow chart and Figures 2 through 4 provide numerical examples of the procedures keyed to the numbered steps associated with the different types of base year FMR estimates-- AHS, Census, and RDD.

Figure 1:
FMR Calculation Process



Based on Metropolitan American Housing Survey (AHS) (Figure 2)

AHS surveys cover 44 of the largest metropolitan areas, which contain half of the Nation's rental housing stock. The surveys are conducted on a 4-year cycle, 11 areas each year.

1. Develop Base Year FMR Estimates

HUD uses the AHS data to calculate the 40th percentile rent for the distribution of two-bedroom units occupied by recent movers. Public housing units, newly constructed units, and units that fail a housing quality test are excluded from the distribution before the calculation. This number then becomes the base year FMR estimate for the area.

2-3. Update Base Year FMR Estimates

Because of lags in processing the survey data, most AHS-based FMR estimates are put into effect 2 or 3 years after the data are collected. (a) If the FMR Area has its own CPI survey, the AHS base year gross rent estimate is divided into shelter rent and utility components, using the ratio of utilities to gross rents paid by renters who pay for their utilities. The shelter rent and utility components are then updated separately, using the local CPI data on rent and utility cost changes. (b) If the AHS area does not have its own CPI survey, the base year rent is updated with the applicable Regional RDD gross rent change factor computed by HUD.

4. Trending

The 40th percentile rent estimates are then trended, based on an annual projection factor, to the midpoint of the fiscal year in which they will be used. This step is done by prorating national rent data by the actual number of months between the date of the AHS survey and the midpoint of the fiscal year for which the FMRs apply.

5. Bedroom Size Adjustments

For most areas the ratios developed from the 1990 Census are applied to the two-bedroom FMR estimate to derive FMRs for other bedroom sizes. Exceptions to this procedure are made for areas with local bedroom intervals below the normal range. For these areas the bedroom intervals selected are the minimums determined after outliers had been excluded from the bedroom ratio distribution of all metropolitan areas. In addition the ratios used for three-bedroom and larger units are higher than those that would result from the actual market relationships. This step increases the likelihood that large families that are the most difficult to place will be successful in finding Section 8 eligible housing.

Based on Decennial Census (Figure 3)

1. Develop Base Year FMR Estimates

HUD uses Census data on units occupied by recent movers to calculate a 40th percentile rent for each FMR area.¹⁵ Units that are newly constructed and those that have the types of housing deficiencies identifiable with Census data are removed before making the calculation. The resulting estimates differ from AHS-based FMR estimates because they include public housing units and are based on fewer measures of housing quality.

The 40th percentile rent estimate is then multiplied by an adjustment factor developed from AHS data to account for the additional housing quality measures available in the AHS and for the public housing units that are included in the Census counts. The housing quality adjustment factor is calculated separately for each FMR area. While it varies from area to area, the FMRs, on average, are increased by about 2 percent as a result.

2-4. Updating and Trending

After the base year estimates are developed, the procedures used to develop current FMRs are the same as in steps 2 through 5 above for the AHS areas with an additional step to update the Census base year estimates. Because RDD Regional data are not available before 1991, the Census estimates for areas without their own CPI surveys are updated using national CPI data for the 9-month period from April through December 1990.

5. Bedroom Size Adjustments

The bedroom size adjustment is the same as for the AHS-based FMRs.

¹⁵However, the state minimum is used if it exceeds the Census data for the area; see the following section.

Based on Local RDD Surveys (Figure 4)

1. Develop Base Year FMR Estimates

HUD uses the RDD technique to obtain random samples of one- and two-bedroom units occupied by recent movers. One-bedroom rents are increased by the Census two-bedroom to one-bedroom ratio to convert them into two-bedroom-equivalent rents.

RDD surveys exclude public housing units, newly built units, seasonal units, units owned by relatives, and units not rented for cash. The surveys do not specifically exclude substandard units because there is no practical way to determine housing quality from telephone interviews. A HUD analysis conducted to address this issue has shown that the slight downward RDD survey bias caused by including some substandard units is almost exactly offset by the slight upward bias that results from surveying only units with telephones. Additional research on this topic is underway.

On average, between 8,000 and 12,000 telephone numbers need to be contacted to achieve the target survey level of at least 200 interviews of eligible recent movers. The RDD surveys have a high degree of statistical accuracy. There is a 95 percent likelihood that the 40th percentile recent-mover rent estimates are within 3 to 4 percent of the actual 40th percentile rent, and virtually all of the estimates are within 5 percent of the actual 40th percentile value.

2-4. Updating and Trending

Most RDD surveys are put into effect in the next available FMR year. For them all that is necessary is to trend the results with the standard projection factor for the number of months between the survey and the midpoint of the FMR year.

If the RDD is not used immediately, as is the case with the example shown here, the updating and trending is a little more complex. In brief, the updating is based on a combination of the standard trending factor and whichever local CPI or regional RDD rent change factors are applicable.

5. Bedroom Size Adjustments

The bedroom size adjustment is the same as for the AHS-based FMRs.

State Minimum FMRs for Nonmetropolitan Counties

For FY-1996 FMRs, HUD implemented a new minimum FMR policy, in response to numerous public concerns that FMRs in rural areas were too low to operate the program successfully. The new policy establishes the FMRs at the higher of the local FMR or the Statewide average FMR of nonmetropolitan counties, subject to a ceiling rent cap. This replaces a previous method for calculating FMRs in small nonmetropolitan counties. The state minimum also affects a small number of metropolitan areas whose rents would otherwise fall below the state minimum.

Review of Public Comments

HUD publishes FMRs in the *Federal Register*, first as proposed estimates for public comment and then for final effect. The proposed FMRs are usually published in mid-April, with a 60-day period allowed for comments. By law the final FMRs for use in any fiscal year must be published and available for use at the start of that fiscal year, on October 1.

The purpose of the public comments process is to identify areas where local government officials or residents believe the FMRs are too high or too low. Public Housing Agencies and other organizations responsible for operating the Section 8 programs submit most comments. To be considered for FMR revisions, the comments must include statistically valid rental housing survey data that justifies the recommended changes.

HUD prefers that the rental data be obtained through a well-conducted RDD survey. PHAs and other organizations that want to use the RDD survey technique may obtain a copy of *Random Digit Dialing Surveys: A Guide to Assist Larger Public Housing Agencies in Preparing Fair Market Rent Comments*. Small PHAs may wish to use the simplified methods described in *Rental Housing Surveys: A Guide to Assist Smaller Public Housing Agencies in Preparing Fair Market Rent Comments*. Both may be obtained from HUD USER at 1B800B245B2691, or on the Worldwide Web at <http://www.huduser.org/publications/publicassist/assisted/fmrent.html>.

FMR Exceptions

To ensure successful program operation, FMR exceptions are allowed to compensate for variations in rent levels that exist within individual housing markets. HUD may approve area exception rents up to 20 percent above the published FMRs for selected geographic parts of an FMR area, up to 50 percent of the population of the FMR area. The exception percentage can now be based on the 1990 Census differential. Alternatively, the Housing Agency may submit statistically representative rental housing survey data showing the current 40th percentile gross rent in the exception area, if there is good reason to believe that rent relationships between the exception area and the entire FMR area have changed substantially since the Census. Whichever method is used, HUD must determine that the exception is needed either to enable families to find housing outside areas of high poverty; or because certificate or voucher holders have trouble finding housing within the term of the certificate or voucher. HUD also allows exceptions for units occupied by persons with disabilities.

Figure 2: AHS-Based*Minneapolis-St Paul, Minnesota*

1. Base year FMR developed using December 1993 *AHS survey*: \$568
 - 40th percentile gross rent, for 2-bedroom units, recent movers only
 - Exclude newly constructed, substandard, and public housing units

2. Update using the *CPI Survey*:
 - Separate gross rent of \$568 into:

Shelter rent component	\$494
Utilities component	\$74
 - Update each component from January 1994 to December 1994 using CPI residential rent and utilities indices for this locality:

Shelter rent	+	1.8% increase	\$503
Utilities	-	0.09% decrease	\$73

3. Add components back together to get *most current estimate possible with CPI data*: \$576

4. Trend result to April 1996, the midpoint of the fiscal year to be used, using a 2.98 percent annual projection factor (3.75% total) \$598

5. *Test result against previous year's FMR and confidence interval*:
 - *Continue using last year's FMR* because 1993 AHS-based FMR (\$598) is lower than projected 1995 FMR (\$605), and both are within statistical confidence interval: **\$605**

6. FMRs for other bedroom sizes are calculated using 1990 Census ratios for the locality:

EFF.	1BR	2BR	3BR	4BR
.61	.78	1.00	1.36	1.53
\$369	\$474	\$605	\$820	\$928

Figure 3: Census-Based
(Camden County, Georgia)

1. Base year FMR developed using *1990 Census*: \$405
- 40th percentile gross rent
 - only two-bedroom units
 - only recent movers
 - exclude newly constructed units
 - exclude substandard units
- 1990 FMR standard housing quality adjustment procedure was applied: \$412
- AHS data permit better housing quality adjustments than the 1990 Census. A comparison of AHS- and Census-based FMRs at the national level produces a factor which is used to adjust all FMRs without local AHS surveys (1.7%):
- The 1990 Census FMR as of April 1990 was updated to December 1990 using national CPI data for the 9-month period (3.0%): \$424
- 2-3. The FMR was updated with 4 years of HUD Region IV nonmetropolitan area RDD change factors, from January 1991 to December 1994 (7.6% total): \$456
4. The FMR was trended to April 1996, the midpoint of the 1996 fiscal year, with a 3.0 percent annual projection based on national CPI data (3.75% total): \$473
5. The FMRs for other bedroom sizes were calculated using 1990 Census ratios for the locality:

EFF.	1BR	2BR	3BR	4BR
.79	.89	1.00	1.39	1.64
\$374	\$422	\$473	\$658	\$777

Figure 4: RDD-Based
Eugene-Springfield, Oregon MSA

1. Base year FMR developed using an *RDD survey* conducted in June 1993: \$512
 - 40th percentile gross rent
 - 1 and 2-bedroom units
 - Recent movers only
 - Exclude newly constructed units
 - Exclude public housing units
- 2-3. Update using HUD Region X metropolitan area RDD change factors, from June 1993 to December 1994 (7.0% total): \$548
4. Project from January 1995 to April 1996 using national CPI (3.75% total): \$569
5. FMRs for other bedroom sizes were calculated using 1990 Census ratios for the locality:

<u>EFF.</u>	<u>1BR</u>	<u>2BR</u>	<u>3BR</u>	<u>4BR</u>
.56	.77	1.00	1.39	1.61
\$318	\$436	\$569	\$794	\$918

Attachment 6: Sample Size Computation and Actual Examples

The following is a detailed example of all the factors that determine the required sample size for HUD-conducted metropolitan area surveys. Some of the factors can be determined in advance by reference to Census data; other factors may be known to the sponsoring HA. Yet others are basically unknown until the survey is actually underway. Following the example based on HUD-sponsored experience with 33 metropolitan areas is an example for the Portland Oregon MSA.

It must be noted that small differences in these factors can produce large differences in the ultimate outcomes. Contractors are urged, therefore, to select RDD samples that are at least 25% larger than what their calculations show.

Because many of the factors are likely to be unknown in advance of conducting the survey, contractors should use the sample numbers shown in the second table if those areas have already been surveyed.¹⁶ Only if no survey has been done of the area should an HA use the computations shown below.

Notes To The Following Table:

- * Census STF-3 or publication.
- ** Special Census tabulations "Baseline Data Used to Develop the FY94 FMRs". Available from HUD field economist.
- *** Use 33-area average or, if available, local data.

All percentages refer to the units that have passed all prior screens. Thus, on average, 11 percent of all 1-2 bedroom rental residences that were not built within the past 2 years are owned by an HA; not 11 percent of all residential units.

The "Running Total" is simply the previous Running Total divided by the "Proportion Included" for the current row.

¹⁶ The Housing Agency or its contractor should contact the author to find out if the area to be surveyed has been the subject of a more recent RDD.

Random Digit Dialing Surveys: A Guide for Large Housing Agencies

Reason for Exclusion	Proportion Excluded	Proportion Included	Running Total	Foot-Note	Additional Notes
33 Metropolitan Area Surveys					
Completed interviews needed			200		
Non-working phone	0.236	0.764	262		
Not Answered	0.169	0.831	315		Incl. Busy/answering machine
Refused all cooperation	0.127	0.873	361		Includes language barrier
Not residential	0.247	0.753	479		
Not renter-occupied	0.762	0.239	2,009		
Not 1-2 bedroom	0.312	0.688	2,918		
Not usual residence	0.027	0.973	2,998		
Built during last 2 years	0.060	0.940	3,190		
Owned by HA	0.116	0.884	3,607		
Owned by relative	0.080	0.920	3,921		
Not recent movers	0.576	0.424	9,245		
Example: Portland, OR MSA					
Completed interviews needed			200		
Non-working phone	0.236	0.764	262		
Not Answered	0.169	0.831	315		
Refused all cooperation	0.127	0.873	361		
Not residential	0.247	0.753	479		
Not renter-occupied	0.610	0.390	1,228	*	From Census STF-3
Not 1-2 bedroom	0.280	0.720	1,706	**	From Census special tabs
Not usual residence	0.027	0.973	1,753		
Built during last 2 years	0.060	0.940	1,865	***	May have local data
Owned by HA	0.116	0.884	2,109	***	May have local data
Owned by relative	0.080	0.920	2,292		
Not recent movers	0.540	0.460	4,983	**	From Census special tabs
25 percent allowance	0.250	0.750	6,644		

**Telephone Numbers Needed for 200 Recent Mover Cases
RDD Surveys Conducted in 1996-98**

		Phone Numbers Needed				Phone Numbers Needed	
State	Area Name	Before Screen	After Screen	State	Area Name	Before Screen	After Screen
AL	Mobile, AL	15,642	13,598	MN	GOODHUE	11,415	9,863
AL	Montgomery, AL	14,604	12,886	MN	KANDIYOHI	14,286	11,105
AZ	Phoenix-Mesa, AZ	9,557	8,464	NC	Asheville, NC	13,453	11,494
AZ	Tucson, AZ	10,396	9,037	NC	Greensboro—Winston-Salem— High Point, NC	12,427	11,015
CA	Bakersfield, CA	9,907	9,024	NC	Wilmington, NC	13,324	11,654
CA	Fresno, CA	9,565	8,646	NC	BEAUFORT	26,155	23,451
CA	Los Angeles-Long Beach, CA	8,139	7,347	NC	HAYWOOD	18,234	15,724
CA	Oakland, CA	8,739	7,920	NC	IREDELL	19,506	15,965
CA	Riverside-San Bernardino, CA	10,200	9,425	NC	TYRRELL	17,093	14,755
CA	San Diego, CA	5,537	5,036	ND	Grand Forks, ND-MN	8,038	6,605
CA	San Diego, CA	9,327	8,573	NE	Omaha, NE-IA	9,384	7,805
CA	San Francisco, CA	13,084	11,660	NE	ADAMS	10,439	8,938
CA	San Jose, CA	12,255	10,999	NH	Manchester, NH	10,110	7,863
CA	Santa Cruz-Watsonville, CA	11,560	10,419	NH	Portsmouth-Rochester, NH-ME	15,788	12,371
CA	Stockton-Lodi, CA	10,489	9,587	NH	MERRIMACK	11,979	9,194
CA	Vallejo-Fairfield-Napa, CA	9,805	8,778	NJ	Bergen-Passaic, NJ	16,247	13,851
CA	Ventura, CA	12,613	11,296	NJ	Jersey City, NJ	8,265	6,774
CA	Visalia-Tulare-Porterville, CA	13,310	12,426	NJ	Monmouth-Ocean, NJ	30,388	26,478
CO	Colorado Springs, CO	6,825	6,200	NJ	Newark, NJ	21,220	17,847
CT	Bridgeport, CT	14,106	12,551	NM	NM: TAOS	16,252	14,800
FL	Daytona Beach, FL	13,514	10,730	NV	Las Vegas, NV-AZ	9,998	9,324
FL	Fort Myers-Cape Coral, FL	13,898	12,582	NY	Albany-Schenectady-Troy, NY	9,073	7,098
FL	Lakeland-Winter Haven, FL	13,861	12,924	NY	Buffalo-Niagara Falls, NY	11,962	9,047
FL	Melbourne-Titusville-Palm Bay, FL	10,798	8,863	NY	Newburgh, NY-PA	16,221	13,768
FL	Orlando, FL	9,320	7,905	NY	Syracuse, NY	10,000	7,784
FL	Sarasota-Bradenton, FL	16,041	14,784	OH	Canton-Massillon, OH	13,936	11,397
FL	West Palm Beach-Boca Raton, FL	19,074	16,221	OH	Dayton-Springfield, OH	11,683	9,242
HI	Honolulu, HI	12,536	11,507	OH	Hamilton-Middletown, OH	11,923	11,007
ID	Boise City, ID	10,891	9,907	OK	Tulsa, OK	13,272	12,035
IL	Champaign-Urbana, IL	5,530	4,309	OR	Eugene-Springfield, OR	9,619	8,706
IL	Chicago, IL	13,393	10,401	OR	Salem, OR	10,073	9,082
IL	Peoria-Pekin, IL	13,467	11,376	OR	BENTON	6,550	5,935
IL	Rockford, IL	12,107	9,578	OR	CLATSOP	9,725	8,700
IL	FULTON	34,341	21,949	OR	HOOD RIVER	29,388	28,441
IL	Knox County	23,967	18,647	PA	Harrisburg-Lebanon-Carlisle, PA	13,128	11,312
IL	LA SALLE	23,212	20,012	PA	Lancaster, PA	11,584	9,815
IN	Bloomington, IN	5,048	4,221	PA	Philadelphia, PA-NJ	15,981	13,088
IN	Evansville-Henderson, IN-KY	10,099	7,872	PA	State College, PA	5,185	4,921
IN	Fort Wayne, IN	13,022	11,614	PA	Bradford	18,574	17,244
IN	South Bend, IN	14,906	11,858	TN	Chattanooga, TN-GA	12,719	10,932
KS	FINNEY	12,804	11,217	TX	Beaumont-Port Arthur, TX	14,493	12,960
KS	FRANKLIN	12,020	9,305	TX	Bryan-College Station, TX	5,562	5,024
KS	SALINE	8,513	6,858	TX	Dallas, TX	10,772	9,344
KY	Louisville, KY-IN	9,372	8,216	TX	Fort Worth-Arlington, TX	9,809	8,357
LA	Baton Rouge, LA	10,945	8,983	TX	McAllen-Edinburg-Mission, TX	23,563	20,986
MA	Brockton, MA	16,925	13,691	UT	Salt Lake City-Ogden, UT	11,317	10,233

Random Digit Dialing Surveys: A Guide for Large Housing Agencies

MA	Lawrence, MA-NH	15,487	12,887	WA	Seattle-Bellevue-Everett, WA	11,554	10,429
MA	Lawrence, MA-NH	12,615	10,127	WA	Spokane, WA	8,358	7,620
MD	Baltimore, MD	14,178	10,855	WA	Tacoma, WA	8,172	7,513
MI	Detroit, MI	19,646	15,010	WI	Green Bay, WI	10,747	8,971
MI	Flint, MI	14,279	12,989	WI	Madison, WI	6,601	5,764
MI	Saginaw-Bay City-Midland, MI	20,334	16,375	WI	Milwaukee-Waukesha, WI	10,485	8,795
MN	Duluth-Superior, MN-WI	12,988	10,712	WI	TREMPEALEAU	20,951	19,435
MN	Minneapolis-St. Paul, MN-WI	11,299	9,915	WV	BERKELEY	18,993	17,551
MN	St. Cloud, MN	10,317	9,066	WV	Charleston, WV	14,545	12,482
MN	BLUE EARTH	9,083	8,048	WV	RALEIGH	22,950	20,127
MN	DOUGLAS	20,216	16,514				

Note: Most of these are HUD-sponsored surveys. Some areas have been surveyed more than once.

“Screen” is automated screening for not-in-service and business numbers. Area names in capitals are non-metropolitan FMR areas.

Attachment 7 Suggested Bid Evaluation Criteria

HUD suggests the following weighted evaluation criteria to rank survey firms' proposals:

- **Understanding of project objectives (10 points).** The proposal does not have to include a detailed discussion of the process that HAs follow in filing appeals for changes in FMRs. However, the proposal must demonstrate that the offeror understands the nature of the intended product. Specifically, the contract will not yield a lengthy or detailed report, but does require the survey firm to follow and document a series of verifiable steps in the survey process.
- **Technical approach (50 points).** The technical approach should describe how the offeror plans to conduct the survey and estimate the FMR. It should be sufficiently detailed to allow you to judge the firm's capability to successfully implement all phases of the project within a 6-week period. It consists of the following:
 - Previous experience in conducting surveys of similar complexity and analyzing the data on time (40 points).
 - Estimation of the FMR (10 points).
- **Staffing (20 points).** The staff proposed for this effort must have experience implementing surveys similar in scope, complexity, and time requirements to the survey described in the Statement of Work.
- **Organizational capability (20 points).** The offeror must demonstrate that the necessary staff and physical resources are in place and can be assigned to the survey so that it can be completed within 6 weeks of contract award. Experience in implementing surveys of this scope and complexity is essential and must be documented in the proposal.

References should be contacted before making an award. You should therefore request bidders to provide a contact person's name, address, and telephone number for each of the previous contracts cited in their proposals.

Attachment 8: Suggestions for Obtaining Cooperation

It is important to the validity of the survey that you screen as close to 100 percent of the households in the sample as possible, identify potential eligible households to contact, and interview a high percentage of them.

It is also important that you not "lead" the respondent by making statements that indicate how he or she should answer. For example, when asked why you are doing the survey, you *must not say* something like "we believe HUD's Fair Market Rents aren't high enough . . ." This statement may seriously bias the answers and possibly invalidate the survey.

Here are some suggestions for conducting a survey and dealing with various problems. They are aimed primarily at telephone surveys; however, you may have to deal with similar problems when conducting a mail survey. The following are general suggestions for conducting a survey:

- *Read the introduction verbatim* and be certain to pronounce the words clearly. Practice each introduction until your presentation is confident and sincere.
- *Don't rush or pause.* Rushing through an introduction gives the impression that you lack confidence and may lead the listener to misunderstand what you have said.

However:

- *Do not pause before asking the first question following the introduction.* A pause will give the impression that you are waiting for approval or disapproval, or for questions from the respondent.
- *If faced with refusal, try asking immediately about rental status* (Question 2): "Would you please just answer one question: Are you renting your property or do you own it?" If you can obtain an answer to this question, you will have screened out a large number of people whom you don't need to follow up.

Dealing With Specific Questions

- *"I need more information about the study before I'll answer any questions."*
You might respond by saying: "The study is being conducted by _____ to get information on the cost of rental housing in our area. All information you give will be kept absolutely confidential and your participation is voluntary. Why don't we start the interview and you'll see what the questions are like." NOW ASK THE FIRST QUESTION.
- *"How did you get my unlisted number?"*
You might respond with: "All numbers were chosen randomly from among possible numbers in your telephone exchange. We didn't know it was your number."
- *"How do I know the survey is legitimate?"*
You might repeat appropriate parts of the introduction. If necessary, explain that the survey is an important effort by the _____ to learn more about the cost of rental housing in their area. As a last resort, say that the Project Director may be called to verify the legitimacy of the survey and obtain additional information. Provide a telephone number to the respondent.
- *"Who's in charge of this survey?"*
You might respond with: "The survey is sponsored by _____. The Project Director is _____."
- *"Who is your supervisor?"*
You should give the name of your immediate supervisor without hesitation. Call your supervisor to the phone if the respondent asks to speak to him or her.
- *"Who else have you talked to in my area?"*
You might say, "I only have telephone numbers so I don't know who else we may have contacted."
- *"How do I know that you are really an interviewer for this survey?"*
You should tell the respondent that your position can be verified by calling the Project Director and provide the respondent with a telephone number.
- *"What's this survey about?"*
You might answer, "We're interviewing people at random to help the [HA] learn more about the costs of rental housing in our area."

- *"I don't want to buy anything!"*
You might say, "I'm not trying to sell anything. This is an important survey sponsored by _____."
- *"Why interview me?"*
You might say, "Scientific procedures were used to select a sample of [telephone numbers/households] in our community. Your [number/household] was chosen randomly and represents many other [numbers/households]. It's important that you help with the survey because we can't replace you with someone else." [Use "number" for telephone surveys, "household" for traditional, mailed surveys.]
- *"I'm too busy now."*
You might respond with: "Then let's make an appointment for another time. We can call tomorrow morning, afternoon, or evening."
- *"Call me back next week."*
Such statements are usually a "put-off" tactic and will be continued when you call back. Try to retain control of the situation by setting an appointment. After setting an appointment, you might want to say something like "Okay. I've made an appointment for you at 8:00 next Tuesday evening. I look forward to talking with you then." Then make sure you or someone else actually makes the call.
- *"I just don't have time for your survey."*
You might say, "I'll move through the interview as quickly as I can to save you time. Let me start and you tell me if I'm going too fast." Immediately ask the first question and continue at a brisk pace. [The interview should take no more than 4 or 5 minutes, even if you've reached an eligible household, far less if it's not eligible.]
- *"I'm not going to answer a lot of questions over the phone!"*
You might reply with: "Most people find the questions interesting. Let me start and you can see what they are like."
- *"I think this whole business is stupid. The government has better things to do with tax dollars . . ."*

Occasionally an argumentative respondent is encountered. In spite of their response, they tend to be people who really are interested in the study but want to tell what they feel before they consent to be interviewed. Bear with them and hear them out! As long as they keep talking, they have not refused. Do not argue; instead, make short, neutral comments to let

them know you are listening. When they have finished, say: "Your opinions are very interesting, and your answers will be important for the survey. Let's start now." THEN ASK THE FIRST QUESTION.

When answering questions or overcoming objections, respond positively to concerns that they voice and do not argue with respondents or alienate them. Listen to their questions carefully and attempt to answer them briefly. Do not provide more detail than is required because additional details might suggest more questions or raise new concerns. Also do not hesitate to tell the interviewee that you cannot answer a particular question; promise that you will get an answer to that question and arrange to call back with the information.

Of course, harassing or unduly pressuring a respondent is improper. However, you should realize that the participation of all households listed in the sample is important to the study and refusals must not be accepted without reasonable attempts to convince the nonrespondents to participate. General suggestions that supplement the more specific examples already provided for dealing with potential nonrespondents include:

- Never take a comment or action of a respondent personally; he or she does not know you; the respondent is reacting negatively for reasons beyond your control.
- Many factors may result in a refusal at the time of your initial contact that may not be a problem at another time (e.g., the person may have been in the shower, just awakened from a nap, just leaving the house, not feeling well, arguing with another person, or may have just received a call from an aggressive sales person). A call at another time may find the person to be more receptive.
- Attempt to start an interview with a reluctant person by moving into the first question as soon as possible.
- Try to keep a reluctant person talking by making *brief, positive, neutral* statements in response to his or her comments.

When contacting someone who has refused to be interviewed, you should never directly refer to the previous refusal, but start with something like "When we spoke the other day you were too busy to help us."

Attachment 9

Changes From Previous Versions of This Guide

- The questionnaire now includes expanded questions about seasonal units and shared housing.
- If HA utility allowance schedule does not contain an allowance for air conditioning, the contractor must enter an estimate, for units that pay for air conditioning. HUD can help make this estimate.
- For efficiency in screening out business numbers, one call may be made during regular business hours.
- If the 40th percentile case is not a round number, the contractor must interpolate.
- Before paying for mechanized pre-screening of nonworking phone numbers, the contractor should check whether this technology will work on the local phone system.
- Response rate calculations have been simplified and made more understandable. They must be computed and submitted to HUD.
- Selected frequency counts of survey responses must be submitted to HUD.
- Contractors may not claim that an HA-sponsored survey is being conducted on behalf of HUD.
- The precision requirements have been updated; what is desired is 200 recent mover cases, regardless of the variability of the sample obtained.
- Housing Agencies should consider a wide range of prospective contractors, including ones located far away (because long-distance charges are relatively unaffected by distance), and should check all of their references, including surveys that were never sent to HUD, and surveys that were never completed.
- Survey results must be delivered to the sponsor within 6 weeks of contract award.