# FAIR MARKET RENT TELEPHONE SURVEYS

C-CHI-00851

Gulfport-Biloxi, MS
New Orleans, LA
Minot, ND (Non-Metropolitan)
Reno-Sparks, NV



# **SUBMITTED TO: Department of Housing and Urban Development**

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#### 1. OVERVIEW

The goal of this task is to develop the 40th percentile rents for 2 bedroom-equivalent units for all renters, for recent mover renters<sup>1</sup>, and for recent movers in 2 bedroom units in each of 4 survey areas, and then develop the standard error and 95 percent confidence interval for each estimate. The requirement for the study is that half-widths (i.e. half the distance between the upper and lower bounds) of the 95 percent confidence interval around the estimated quantile for all recent movers are within 5%. Table 2 below summarizes the findings. As can be seen in Table 2, for all 4 survey areas, the interval half-widths are within 5% of the estimate for the blended rate of recent movers (4.0% Gulfport-Biloxi, 3.7% in New Orleans, 4.1% in Minot, and 3.6% in Reno-Sparks).

In addition to presenting the blended rent, the task also requires presenting the 40<sup>th</sup> percentile rents separately for 1, 2 and where relevant, 3 bedroom units for all renters, for recent movers, and for stayers. These numbers are presented in Table 4.

Beside determining the Fair Market Rent for each area, we were concerned about whether the survey suffered from any bias from having landline-only sample and no cell phone sample. To begin to address this issue, we added several cell phone questions to this survey. These questions were originally asked in another well-known survey by Stephen Blumberg.<sup>2</sup>

In this survey, we ask three questions about cell phone possession and usage. In Question 21 (a) we ask if the respondent or anyone in their family had a working cell phone. In Question 21 (b) we ask how many cell phones the family possessed, and in Question 21 (c) we ask to what extent the respondent and their families used the cell phone for their calls.

We report results from this three-part cell phone question after we report the fair market rents for each market. We present these cell phone results broken down by recent-mover and stayer renters.

But before we discuss the fair market rent and cell phone results, we discuss the methodology of how the random digit dialing (RDD) sample was drawn. We also indicate the Fielding Period.

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<sup>&</sup>lt;sup>1</sup> Recent mover is defined as someone who moved within the last 24 months for Gulfport-Biloxi, New Orleans and Minot, and someone who moved within the last 12 months for Reno-Sparks. Non-recent mover (Stayer) is defined as someone who did not move within the last 24 months for Gulfport-Biloxi, New Orleans and Minot, and someone who did not move within the last 12 months for Reno-Sparks.

<sup>&</sup>lt;sup>2</sup> Blumberg SJ, Luke JV, Division of Health Interview Statistics, National Center for Health Statistics, Davidson G, Davern M, Yu T, and Soderberg K, the State Health Access Data Assistance Center, University of Minnesota. National Health Statistics Report Number 14, March 2009.

#### 2. SAMPLE

#### 2.1 RDD Sample

MDAC utilized the services of the GENESYS System (Marketing Systems Group, Inc.) to generate sample. To generate the sample the GENESYS System employs list-assisted random digit dialing methodology. List-assisted refers to the use of commercial lists of directory-listed telephone numbers to increase the likelihood of dialing household residences. This method gives unlisted telephone numbers the same chance to be selected as directory-listed numbers. The system utilizes a database consisting of all residential telephone exchanges, working bank information, and various geographic service parameters such as state, county, Primary ZIP code, etc. In addition, the database provides working bank information at the two-digit level – each of the 100 banks (i.e., first two digits of the four-digit suffix) in each exchange is defined as "working" if it contains one or more listed telephone households. On a National basis, this definition covers an estimated 96.4% of all residential telephone numbers and 99.96% of listed residential numbers. This database is updated on a quarterly basis. The sample frame consists of the set of all telephone exchanges that meet the geographic criteria. This geographic definition is made using one or more of the geographic codes included in the database. Following specification of the geographic area, the system selects all exchanges and associated working banks that meet those criteria. Based on the sample frame defined above, the system computes an interval such that the number of intervals is equivalent to the desired number of sample pieces. The interval is computed by dividing the total possible telephone numbers in the sample frame (i.e., # of working banks X 100) by the number of RDD sample pieces required. Within each interval a single random number is generated between 1 and the interval size; the corresponding phone number within the interval is identified and written to an output file. The result is that every potential telephone number within the defined sample frame has a known and equal probability of selection.

Below is Genesys' Random Digit Dialing sampling methodology:

- 1. Epsem (Equal Probability Selection Method) sample is generated in the following way:
- a) The sample frame is first specified, which is defined as a group of exchanges serving some geographic area this could be a city, county, state, National, etc., or even just a set of exchanges.
- b) The sampling interval is then calculated by summing all of the exchanges and working blocks in the frame, times 100.
- c) This sum is then divided by the number of RDD records desired, thus specifying the size of the frame subdivisions.
- d) At this point, the frame size has been fixed and divided into equal-sized subsets of ten-digit numbers.
- e) Within each of the subsets, one number is selected at random from each of the equal-sized intervals.
- f) All possible ten-digit numbers are given an equal probability of selection, regardless of the density of listed households within them. Hence, an extremely representative sample is produced.
- g) There are a few advantages to an epsem sample:
- 1) Generates a statistically valid random sample which also allows for unbiased estimates.

- 2) Project to all households with a phone number.
- 3) Is no potential bias toward households with listed phone numbers.

#### **2.2 ID-PLUS**

This process is designed to purge about 75% of the non-productive numbers (non-working, businesses and fax/modems). Since this process is completed after the sample is generated, the statistical integrity of the sample is maintained. GENESYS employs the ID-PLUS process for the HUD RDD Fair Market Rent surveys.

The Pre-Dialer Phase – The file of generated numbers is passed against the ID database, comprised of the GENESYS-Plus business database and the listed household database. Business numbers are eliminated while listed household numbers are set aside, to be recombined after the active Dialer Phase.

The Dialer Phase – The remaining numbers are then processed using automated dialing equipment – actually a specially configured PROYTYS Telephony system. In this phase, the dialing is 100% attended and the phone is allowed to ring up to two times. Specially trained agents are available to speak to anyone who might answer the phone and the number is dispositioned accordingly. Given this human intervention in evaluating all call results, virtually all remaining businesses, non-working and non-tritone intercepts, compensate for differences in non-working intercept behavior. The testing takes place during the restricted hours of 9 a.m. – 5 p.m. local time, to further minimize intrusion since fewer people are home during these hours.

The Post-Dialer Phase – The sample is then reconstructed, excluding the non-productive numbers identified in the previous two phases.

#### 2.3 Sample Design and Development

TABLE 1

Sample	Gulfport- Biloxi, MS	New Orleans, LA	Minot, ND (Non- Metropolitan)	Reno-Sparks, NV
Generated	142,700	154,101	43,803	66,186
Sent	79,604	77,106	29,594	43,698
Released	77,504	56,860	29,594	43,698

GENESYS generated a probability sample of Gulfport-Biloxi, MS, New Orleans, LA, Minot, ND (non-metropolitan) and Reno-Sparks, NV using list-assisted random digit dialing (RDD) methodology for the survey. GENESYS generated 142,700 telephone numbers for Gulfport-Biloxi of which 79,604 were determined working numbers, 154,101 telephone numbers for New Orleans of which 77,106 were determined working numbers, 43,803 numbers for Minot which 29,594 were determined working numbers, and 66,186 numbers for Reno-Sparks of which 43,698 were determined working numbers. MDAC purchased the sample for each FMR area with the intent of achieving a 40% response rate at minimum. MDAC divided the sample for each FMR area into replicates of 500 numbers each. The sample generated for each FMR area

accounted for the estimated proportion of numbers that may be non-working or disconnected and the sample design yielded a representative sample for each market area.

MDAC released all working sample numbers for Minot and Reno-Sparks. MDAC released 56,860 of the 77,106 working numbers for New Orleans, LA, and released 77,504 of the 79,604 working numbers for Gulfport-Biloxi.

Next, we specify the fielding period for the Fair Market Rent surveys.

#### 2.4 Fielding Period

MDAC fielding began in mid-September 2009 and continued for approximately six weeks in each market. Fielding ended in the final market November 14, 2009. For Gulfport, Biloxi fielding generated 201 completed recent mover and 200 stayer interviews. For New Orleans, LA fielding generated 203 recent mover and 203 stayers. For Minot, ND fielding generated 207 recent movers and 206 stayers. For Reno-Sparks, NV fielding generated 201 recent movers and 203 stayers.

Now, we turn to the Methodology for creating rent estimates and calculating 40<sup>th</sup> and 50<sup>th</sup> percentiles, standard errors and confidence intervals.

#### 3. METHODOLOGY AND RESULTS

TABLE 2
Summary Statistics<sup>3</sup>
Blended Gross Rent for All Renters, Recent Movers, and for Recent Movers in 2-BR Units

	Gulfport- Biloxi	New Orleans	Minot	Reno-Sparks
All renters (blended)				
Number of Obs	401	406	413	404
40 <sup>th</sup> percentile	\$724.56	\$819.40	\$594.26	\$868.00
SE of 40 <sup>th</sup>	\$11.55	\$13.20	\$8.88	\$11.51
95% confidence interval around	\$694.17-	\$790.11-	\$581.05-	\$843.94-\$889.07
40 <sup>th</sup> percentile	\$739.44	\$841.87	\$615.88	
Percentage difference of half width around estimate	3.1%	3.2%	2.9%	2.6%
Recent Movers (blended)				
Number of Obs	201	203	207	201
40 <sup>th</sup> percentile	\$741.26	\$860.42	\$622.69	\$842.46
SE of 40 <sup>th</sup>	\$15.07	\$16.15	\$12.89	\$15.34
95% confidence interval around	\$715.93-	\$829.00-	\$594.00-	\$809.90-\$870.03
40 <sup>th</sup> percentile	\$775.01	\$892.29	\$644.52	
Percentage difference of half	4.0%	3.7%	4.1%	3.6%
width around estimate				
Recent Movers (2 br only)				
Number of Obs	150	129	110	144
40 <sup>th</sup> percentile	\$745.00	\$883.40	\$647.00	\$852.60
SE of 40 <sup>th</sup>	\$15.96	\$18.60	\$17.16	\$23.05
95% confidence interval around	\$713.20-	\$839.08-	\$599.93-	\$800.00-\$890.37
40 <sup>th</sup> percentile	\$775.76	\$912.00	\$667.21	
Percentage difference of half width around estimate	4.2%	4.1%	5.2%	5.3%

The blended rent is defined as gross rent multiplied by the appropriate adjustment factor to obtain a 2-bedroom equivalent rent.

#### 3.1 Methodology for Creating Rent Estimates

**1. Estimate contract rent for each observation.** For housing units that have more than one family or individual responsible for paying the rent, the contract rent amount is the Question 15 total amount. For units that have only one individual or family responsible for paying the rent, the contract rent amount is the Question 16 total amount. (Note that if Q15 or 16 response is "8888", "9999" or less than or equal to \$2, it is recoded as "0"). Any record with final contract rent =0 was deleted.

#### 2. Estimate GROSS RENT which equals CONTRACT RENT + UTILITIES.

UTILITIES are estimated based on which utilities are included in the rent and which are paid for separately by the tenant. Any utility not paid for as part of the rent is

 $<sup>^{3}</sup>$  Note, that as described below, since the quantiles are not distributed normally, we cannot use the standard formula X +/- 1.96 SE to calculate upper and lower bounds for the 95 percent confidence interval.

added to the contract rent amount based on the location, building type, number of bedrooms, and the fuel used.

The survey (Q22) identifies whether any utilities are paid for separately, or whether they are all included as part of the rent. If all utilities are included in the contract rent, then GROSS RENT = CONTRACT RENT.<sup>4</sup>

If any utilities are paid for by the tenant, then we look at the series of questions about utilities to calculate the UTILITIES amount that we need to add to the CONTRACT RENT to obtain GROSS RENT. For example if heat is not included in the rent, then we need to look at the type of fuel, building type, (attached or detached), number of bedrooms, and location (based on MSA code). This gets matched with the utility look-up file to get the correct heating cost estimate for the unit.

We estimate utilities costs for other utilities in a similar manner. Cooking and hot water allowances depend on location, number of bedrooms and fuel type. Air conditioning, main electric, water and sewer, and rental costs for range and refrigerator depend only on location and number of bedrooms.

The type of property (attached/detached) and the types of fuel used for certain utilities were missing in some cases. In order not to lose cases with missing data, we imputed based on the predominant type for that utility and location.

Where the respondent does not know if the building is attached or detached (Q19), we reviewed the response to Q18. We did not assume that the unit was attached. In all cases, the Q19 response was obvious from the Q18 response.

If heating fuel is missing (Q23 answer choice greater than/equal to 7) then in Reno-Sparks and Minot we set it to 2, and in Gulfport-Biloxi and New Orleans we set it to 1.

If Air Conditioning fuel is missing (Q26 greater than/equal to 7) we set it to 1.

If cooking fuel is missing (Q28 greater than/equal to 7) we set all four markets to 1; no markets were set to 2.

If hot water fuel is missing (Q32 greater than/equal to 7) then in Reno-Sparks and Minot we set it to 2, and in Gulfport-Biloxi and New Orleans we set it to 1.

#### 3. Convert each observation into two-bedroom equivalent rents.

The survey collects rents for 1 and 2 bedroom units (and for 3 bedroom units in non-metro counties). Thus, once a GROSS RENT is calculated for each survey unit, we must convert all observations to "2-bedroom equivalent" rents. This is done based on the ratio of the current (2009) 2BR FMR to 1BR FMR in the area. For Minot, ND we

<sup>&</sup>lt;sup>4</sup> If respondents did not know whether or not utilities were included in the rent, the cases were excluded.

also have some 3 bedroom units that are converted to 2BR equivalent rents based on the ratio of the current 2BR FMR to 3BR FMR in the area.

Table 3 shows the adjustment factors used:

TABLE 3
Conversion Factors for computing two-bedroom equivalents in each market.

Location	Gulfport-Biloxi	New Orleans	Minot	Reno-Sparks
One Bedroom	1.17	1.17	1.23	1.24
Three	NA	NA	0.73	NA
Bedroom				

# 3.2 Methodology for calculating 40<sup>th</sup> and/or 50<sup>th</sup> percentiles, standard errors and confidence intervals.

1. Quantile Estimates. Once we have the 2-bedroom equivalent for each unit we can calculate the 40<sup>th</sup> percentiles separately for all renters, recent movers, and for recent movers in 2-bedroom units. The 40<sup>th</sup> percentile is the rent for which 40 percent observations are below the number (and 60 percent are above). For the 50<sup>th</sup> percentile, 50 percent of the rents are below the number and 50 percent are above. This survey used only 40<sup>th</sup> percentiles for all markets.

#### 2. Estimating Standard Errors and 95 Percent Confidence Intervals

For each market, the Fair Market Rent (FMR) is defined as the 40<sup>th</sup> percentile of the two-bedroom equivalent rents. This must be computed separately for recent movers, non-recent movers, and all renters. A *recent mover* is defined as a renter who has moved into his or her unit within the past 24 months, except in the Reno-Sparks market where it is defined as a renter who has moved into his or her unit within the past 12 months. The 40<sup>th</sup> percentile gross rents are also computed for unconverted one-bedroom gross rents and, in Ward County, unconverted three-bedroom gross rents.

To compute the  $40^{th}$  percentile for a given set of rents, we follow the following procedure. Let n be the number of rents under consideration.

- 1. Sort the rents from lowest to highest. Break ties arbitrarily. The lowest rent has rank 1 and is denoted  $X_{(1)}$ ; the largest rent has rank n and is denoted  $X_{(n)}$ . In general, the rent with rank r is denoted  $X_{(r)}$ .
- 2. Let P = 0.4n. If P is an integer, then the  $40^{th}$  percentile is  $X_{(P)}$ .
- 3. If *P* is not an integer, then let *P*0 be the integer part of *P*, that is, the largest integer less than *P*, and let *f* be the fractional part of *P*, namely P P0. Then the  $40^{th}$  percentile is  $(1-f)X_{(P0)} + fX_{(P0+1)}$ .

To compute the 95% confidence interval for the 40<sup>th</sup> percentile, we follow the following procedure, using the sorted list produced in step 1 above.

1. Let 
$$L = 0.4 - 1.96\sqrt{\frac{(0.4)(0.6)}{n}}$$
 and let  $U = 0.4 + 1.96\sqrt{\frac{(0.4)(0.6)}{n}}$ .

- 2. If nL is an integer, then the lower 95% confidence limit for the  $40^{th}$  percentile is  $X_{(nL)}$ .
- 3. If nL is not an integer, then let L0 be the integer part of nL, that is, the largest integer less than nL, and let f be the fractional part of nL, namely nL L0. Then the lower 95% confidence limit for the  $40^{th}$  percentile is  $(1-f)X_{(L0)} + fX_{(L0+1)}$ .
- 4. If nU is an integer, then the upper 95% confidence limit for the 40<sup>th</sup> percentile is  $X_{(nU)}$ .
- 5. If nU is not an integer, then let U0 be the integer part of nU, that is, the largest integer less than nU, and let f be the fractional part of nU, namely nU U0. Then the upper 95% confidence limit for the  $40^{th}$  percentile is  $(1-f)X_{(U0)} + fX_{(U0+1)}$ .

To compute the standard error of the 40<sup>th</sup> percentile estimate, we follow the following procedure.

- 1. Compute the half-width of the confidence interval  $H = \frac{L-U}{2}$ .
- 2. The standard error of the  $40^{th}$  percentile estimate is  $SE = \frac{H}{1.96}$ .

As can be seen in Table 2, for all 4 survey areas, the interval half-widths are within 5 percent of the estimate for the blended rate of recent movers.

#### 3.3 Rents by Bedroom Size, and Blended Rates

In addition to requiring the blended rents and confidence intervals for all renters, recent movers, and recent movers in 2-bedroom units, the scope of work also requires the 40<sup>th</sup> percentile rents by bedroom size (1, 2 BR units everywhere, and 3 BR units in Minot). *These are the gross rents before applying the adjustment factors* (i.e. rents including utilities). Table 4 presents the 40<sup>th</sup> percentile rents by bedroom size for all renters, recent movers, and non-recent movers or stayers.

TABLE 4, Gross Rent Distribution by Bedroom Size, and Blended Rate (Blended Rate is the 2BR-Equivalent Version – the rent multiplied by the adjustment factor).

	Gulfport-Biloxi	New Orleans	Minot	Reno-Sparks
All Renters				
40 <sup>th</sup> percentile	\$594.00	\$687.00	\$455.60	\$676.40
1BR Units				
# 1 BR units	105	147	108	122
. o th	<b>***</b>	404000	0.05.50	0001.00
40 <sup>th</sup> percentile	\$726.00	\$830.80	\$605.20	\$881.20
2 BR Units	20.6	250	210	202
# 2 BR units	296	259	219	282
40 <sup>th</sup> percentile	NA	NA	\$851.00	NA
3 BR Units	INA	INA	\$631.00	INA
# 3 BR units	NA	NA	86	NA
W 5 Bit dilits	1111	1111		1111
40 <sup>th</sup> percentile	\$724.56	\$819.40	\$594.26	\$868.00
2BR equivalent		,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
units (blended rate)				
# 2BR equivalent	401	406	413	404
units				
Recent Movers				
40 <sup>th</sup> percentile	\$632.00	\$698.40	\$458.00	\$675.00
1BR Units				
# 1 BR units	51	74	50	57
40 <sup>th</sup> percentile	\$745.00	\$883.40	\$647.00	\$852.60
2 BR Units	\$745.00	\$883.40	\$647.00	\$832.00
# 2 BR units	150	129	110	144
11 2 DIC units	130	12)	110	177
40 <sup>th</sup> percentile	NA	NA	\$860.60	NA
3 BR Units			,	
# 3 BR units	NA	NA	47	NA
40 <sup>th</sup> percentile	\$741.26	\$860.42	\$622.69	\$842.46
2BR equivalent				
units (blended rate)				
# 2BR equivalent	201	203	207	201
units				

TABLE 4, (Continued)

,	Gulfport-Biloxi	New Orleans	Minot	Reno-Sparks
Stayers				
40 <sup>th</sup> percentile	\$538.00	\$648.00	\$453.40	\$674.00
1BR Units				
# 1 BR units	54	73	58	65
40 <sup>th</sup> percentile 2 BR Units	\$707.40	\$755.00	\$573.20	\$906.80
# 2 BR units	146	130	109	138
40 <sup>th</sup> percentile 3 BR Units	NA	NA	\$808.60	NA
# 3 BR units	NA	NA	39	NA
40 <sup>th</sup> percentile 2BR equivalent units (blended rate)	\$696.00	\$757.66	\$574.66	\$887.40
# 2BR equivalent units	200	203	206	203

Below, MDAC provides a discussion of results for each individual market, along with the Final Disposition Status of all phone calls and the AAPOR number three response, cooperation, refusal, and contact rates.

#### 3.4 GULFPORT-BILOXI

Overall, between September 13<sup>th</sup> and October 30<sup>th</sup>, 401 respondents completed the Fair Market rent survey for Gulfport-Biloxi, MS of which 201 were Recent Movers and 200 were Stayers (moved more than 24 months ago). For all renters the 40<sup>th</sup> percentile gross rent is \$724.56 with a standard error (SE) of \$11.55 giving the 95% confidence interval a range of \$694.17 to \$739.44. The percentage difference of the half width around the estimate is 3.1%.

For the 201 recent movers the 40<sup>th</sup> percentile blended gross rent is \$741.26 with a SE of \$15.07 giving the 95% confidence interval a range of \$715.93 to \$775.01. The percentage difference of the half width around the estimate is 4.0%.

For the 150 two-bedroom recent movers the 40<sup>th</sup> percentile gross rent is \$745.00 with a SE of \$15.96 giving the 95% confidence interval a range of \$713.20 to \$775.76. The percentage difference of the half width around the estimate is 4.2%.

Regarding the gross rent by bedroom size for all renters the gross rent of a one-bedroom unit is \$594.00 (105 respondents) while the gross rent for a two-bedroom unit is \$726.00 (296 respondents) and the gross rent for the two-bedroom equivalent unit (blended rate) is \$724.56 (all 401 respondents).

For recent movers the gross rent of a one-bedroom unit is \$632.00 (51 respondents) while the gross rent for a two-bedroom unit is \$745.00 (150 respondents) and the gross rent for the two-bedroom equivalent is \$741.26 (all 201 recent movers).

For non-recent movers or stayers the gross rent of a one-bedroom unit is \$538.00 (54 respondents) while the gross rent for a two-bedroom unit is \$707.40 (146 respondents) and the gross rent for the two-bedroom equivalent is \$696.00 (all 200 stayers).

#### **3.41 Rates**

**TABLE 5 Gulfport-Biloxi** 

AAPOR	Percent
Response Rate 3	54.6
Cooperation Rate 3	85.3
Refusal Rate 3	9.9
Contact Rate3	90.1

The AAPOR Response Rate3 calculation is 54.6% for Gulfport-Biloxi. The AAPOR Cooperation Rate is 85.3%, the Refusal Rate is 9.9% and the Contact Rate is 90.1%.

# 3.42 Final Dispositions

TABLE 6

IADLE		
		Gulfport-
AAPOR		Biloxi, MS
Final		Final
Disposition		
Codes		
1.0/1.10	Complete	401
1.200	Partial	17
2.110	Refusal	47
2.111	Household-level refusal	3
2.120	Break off	2
2.200	Non-contact	48
2.210	Respondent never available	2
2.221	Answering machine household-no message left	2
2.320	Physically or mentally unable/incompetent	4
3.120	Always busy	1708
3.130	No answer	8314
3.160	Technical phone problems	2473
3.200	Housing unit, unknown if eligible respondent	9369
3.210	No screener completed	47
3.900	Other	60
4.100	Out of sample	2
4.200	Fax/data line	4128
4.300	Non-working/disconnect	30235
4.420	Cell phone	238
	Business, government office, other	
4.510	organizations	5145
4.700	No eligible respondent	15259
	Total phone numbers used	77504

Table 6 shows the breakdown of the 77,504 numbers released for the survey in Gulfport-Biloxi, MS.

#### 3.43 Cell phone questions

For the final wave Questions 21a, 21b, and 21c were added. The purpose was to gather information about respondent cell phone usage in Gulfport-Biloxi. Table numbers in parentheses represent the raw number of respondents. In Gulfport-Biloxi we see approximately half of both the recent movers and stayers had cell phones. Of those with cell phones, over 90% in both groups had either one or two cell phones among family members. Finally, despite calling the respondent on a landline phone, 26% of the recent movers said they used their cell phone for all or almost all of their calls. For Stayers, 19% used their cell phone for all or most all of their calls. In comparison, 7% more recent movers use their cell phone for all or most of their calls.

For Question Q21a, we found no statistically significant difference between recent movers and stayers in the percentage of households that have a working cell phone (P-value = 0.4495 in a chi-square test). For Question Q21b, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the average number of working cell phones in the household (P-value = 0.6541 in a two-sample t-test). For Question 21c, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the relative frequency in which they receive landline and cell phone calls (P-value = 0.4000 in a chi-square test).

Q21a. Do you or anyone in your family have a working cell phone?

	Recent Mover	Stayer		
Total	100% (201)	100% (200)		
Yes	50% (100)	53% (106)		
No	50% (101)	46% (92)		
Don't Know	0% (0)	0%(0)		
Refused	0% (0)	1%(2)		

Q21b. How many working cell phones do you or people in your family have?

	Recent Mover	Stayer
Total	100% (100)	100% (108)
1	61% (61)	64% (69)
2	35% (35)	27% (29)
3	3% (3)	5% (5)
4	0% (0)	3%(3)
5	0% (0)	0%(0)
6	0% (0)	0% (0)
7	0% (0)	0%(0)
8	0% (0)	0% (0)
9	0% (0)	0%(0)
10	0% (0)	0%(0)
98 (Don't Know)	0% (0)	0%(0)
99 (Refused)	1%(1)	2% (2)

Q21c. Of all the telephone calls that you or your family receives, are...

	Recent Mover	Stayer
Total	100% (100)	100% (108)
1 All or almost all calls received on cell phones	26% (26)	19% (20)
2 Some received on cell phones and some on regular phones	43% (43)	45% (49)
3 Very few or none on cell phones	29% (29)	34% (37)
8 Don't Know	0% (0)	0% (0)
9 Refused	2% (2)	2%(2)

#### 3.5 NEW ORLEANS

Overall, between September 12<sup>th</sup> and October 28<sup>th</sup>, 406 respondents completed the Fair Market rent survey for New Orleans, LA of which 203 were Recent Movers and 203 were Stayers. For all renters the 40<sup>th</sup> percentile gross rent is \$819.40 with a standard error (SE) of \$13.20 giving the 95% confidence interval a range of \$790.11 to \$841.87. The percentage difference of the half width around the estimate is 3.2%.

For the 203 recent movers the 40<sup>th</sup> percentile blended gross rent is \$860.42 with a SE of \$16.15 giving the 95% confidence interval a range of \$829.00 to \$892.29. The percentage difference of the half width around the estimate is 3.7%.

For the 129 two-bedroom recent movers the 40<sup>th</sup> percentile gross rent is \$883.40 with a SE of \$18.60 giving the 95% confidence interval a range of \$839.08 to \$912.00. The percentage difference of the half width around the estimate is 4.1%.

Regarding the gross rent by bedroom size for all renters the gross rent of a one-bedroom unit is \$687.00 (147 respondents) while the gross rent for a two-bedroom unit is \$830.80 (259 respondents) and the gross rent for the two-bedroom equivalent unit (blended rate) is \$819.40 (all 406 respondents).

For recent movers the gross rent of a one-bedroom unit is \$698.40 (74 respondents) while the gross rent for a two-bedroom unit is \$883.40 (129 respondents) and the gross rent for the two-bedroom equivalent is \$860.42 (all 203 recent movers).

For non-recent movers or stayers the gross rent of a one-bedroom unit is \$648.00 (73 respondents) while the gross rent for a two-bedroom unit is \$755.00 (130 respondents) and the gross rent for the two-bedroom equivalent is \$757.66 (all 203 stayers).

#### **3.51 Rates**

**TABLE 7 New Orleans, LA** 

AAPOR	Percent
Response Rate 3	50.9
Cooperation Rate 3	86.8
Refusal Rate 3	10.5
Contact Rate3	96.9

The AAPOR Response Rate3 calculation is 50.9% New Orleans. The AAPOR Cooperation Rate is 86.8%, the Refusal Rate is 10.5% and the Contact Rate is 96.9%.

# 3.52 Final Dispositions

**TABLE 8** 

IADLE		
		New
AAPOR		Orleans, LA
Final		Finaĺ
Disposition		
Codes		
1.0/1.10	Complete	406
1.200	Partial	11
2.110	Refusal	49
2.111	Household-level refusal	1
2.120	Break off	1
2.200	Non-contact	14
2.221	Answering machine household-no message left	1
2.320	Physically or mentally unable/incompetent	2
3.120	Always busy	2148
3.130	No answer	8079
3.160	Technical phone problems	1512
3.200	Housing unit, unknown if eligible respondent	10423
3.210	No screener completed	77
3.900	Other	37
4.200	Fax/data line	3671
4.300	Non-working/disconnect	17122
4.420	Cell phone	63
	Business, government office, other	
4.510	organizations	3471
4.700	No eligible respondent	9772
	Total phone numbers used	56860

Table 8 shows the breakdown of the 56,860 numbers released for the survey in New Orleans, LA.

#### 3.53 Cell phone questions

For the final wave Questions 21a, 21b, and 21c were added. The purpose was to gather information about respondent cell phone usage in New Orleans. Table numbers in parentheses represent the raw number of respondents. In New Orleans, we see more than half of both the recent movers (59%) and stayers (55%) had cell phones. Of those with cell phones, over 90% in both groups had either one or two cell phones among family members. Finally, despite calling the respondent on a landline phone, 31% of the recent movers said they used their cell phone for all or almost all of their calls. For Stayers, 21% used their cell phone for all or most all of their calls. In comparison, ten percent more recent movers use their cell phone for all or most of their calls.

For Question Q21a, we found no statistically significant difference between recent movers and stayers in the percentage of households that have a working cell phone (P-value = 0.4208 in a chi-square test). For Question Q21b, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the average number of working cell phones in the household (P-value = 0.4345 in a two-sample t-test). For Question 21c, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the relative frequency in which they receive landline and cell phone calls (P-value = 0.1965 in a chi-square test).

O21a. Do vou or anyone in your family have a working cell phone?

Q21a: Bo you of anyone in your family have a working cen phone:		
	Recent Mover	Stayer
Total	100% (203)	100% (203)
Yes	59% (120)	55% (112)
No	40% (82)	44% (90)
Don't Know	0% (0)	0%(0)
Refused	1%(1)	1%(1)

O21b. How many working cell phones do you or people in your family have?

working cen phones do jou o	do you or people in your luming have.	
Recent Mover	Stayer	
100% (121)	100% (113)	
64% (77)	66% (75)	
26% (32)	26% (29)	
4%(5)	6% (7)	
3% (4)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
0% (0)	0% (0)	
3%(3)	2% (2)	
	Recent Mover  100% (121)  64% (77)  26% (32)  4%(5)  3% (4)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)  0% (0)	

Q21c. Of all the telephone calls that you or your family receives, are...

	Recent Mover	Stayer
Total	100% (121)	100% (113)
1 All or almost all calls received on cell phones	31% (38)	21% (24)
2 Some received on cell phones and some on regular phones	43% (52)	50% (56)
3 Very few or none on cell phones 8 Don't Know	22% (27) 2% (2)	27% (30) 2% (2)
9 Refused	2% (2)	1%(1)

#### 3.6 MINOT, ND (NON-METROPOLITAN)

Overall, between September 22<sup>nd</sup> and November 14<sup>th</sup>, 413 respondents completed the Fair Market rent survey for Minot, ND (non-metropolitan) of which 207 were Recent Movers and 206 were Stayers. For all renters the 40<sup>th</sup> percentile gross rent is \$594.26 with a standard error (SE) of \$8.88 giving the 95% confidence interval a range of \$581.05 to \$615.88. The percentage difference of the half width around the estimate is 2.9%.

For the 207 recent movers the 40<sup>th</sup> percentile blended gross rent is \$622.69 with a SE of \$12.89 giving the 95% confidence interval a range of \$594.00 to \$644.52. The percentage difference of the half width around the estimate is 4.1%.

For the 110 two-bedroom recent movers the 40<sup>th</sup> percentile gross rent is \$647.00 with a SE of \$17.16 giving the 95% confidence interval a range of \$599.93 to \$667.21. The percentage difference of the half width around the estimate is 5.2%.

Regarding the gross rent by bedroom size for all renters the gross rent of a one-bedroom unit is \$455.60 (108 respondents) while the gross rent for a two-bedroom unit is \$605.20 (219 respondents), the gross rent for a three-bedroom unit is \$851.00 (86 respondents) and the gross rent for the two-bedroom equivalent unit (blended rate) is \$594.26 (all 413 respondents).

For recent movers the gross rent of a one-bedroom unit is \$458.00 (50 respondents) while the gross rent for a two-bedroom unit is \$647.00 (110 respondents), the gross rent for a three-bedroom unit is \$860.60 (47 respondents) and the gross rent for the two-bedroom equivalent is \$622.69 (all 207 recent movers).

For non-recent movers or stayers the gross rent of a one-bedroom unit is \$453.40 (58 respondents) while the gross rent for a two-bedroom unit is \$573.20 (109 respondents), the gross rent for a three-bedroom unit is \$808.60 (39 respondents) and the gross rent for the two-bedroom equivalent is \$574.66 (all 206 stayers).

#### **3.61 Rates**

#### **TABLE 9 Minot, ND**

AAPOR	Percent
Response Rate 3	55.4
Cooperation Rate 3	90.4
Refusal Rate 3	6
Contact Rate3	98.3

The AAPOR Response Rate3 calculation is 55.4% for Minot, ND. The AAPOR Cooperation Rate is 90.4%, the Refusal Rate is 6% and the Contact Rate is 98.3%.

## 3.62 Final Dispositions

TABLE 10

AAPOR		Minot, ND
Final		Final
Disposition		
Codes		
1.0/1.10	Complete	413
1.200	Partial	16
2.110	Refusal	16
2.111	Household-level refusal	5
2.120	Break off	7
2.200	Non-contact	6
2.221	Answering machine household-no message left	1
2.222	Answering machine household-message left	1
2.320	Physically or mentally unable/incompetent	2
3.120	Always busy	3803
3.130	No answer	2951
3.160	Technical phone problems	760
3.200	Housing unit, unknown if eligible respondent	3420
3.210	No screener completed	43
3.900	Other	69
4.200	Fax/data line	1145
4.300	Non-working/disconnect	6739
4.420	Cell phone	26
4 540	Business, government office, other	4440
4.510 4.700	organizations	1448
4.700	No eligible respondent	8723
	Total phone numbers used	29594

Table 10 shows the breakdown of the 29,594 numbers released for the survey in Minot, ND which is a non-metropolitan area.

#### 3.63 Cell phone questions

For the final wave, Questions 21a, 21b, and 21c were added. The purpose was to gather information about respondent cell phone usage in Minot. Table numbers in parentheses represent the raw number of respondents. In Minot, we see over 60% recent movers have a cell phone and almost half the stayers had cell phones. Of those with cell phones, close to 87% of the recent movers had either one or two cell phones among family members, while 95% of stayers had one or two cell phones among family members. Finally, despite calling the respondent on a landline phone, 34% of the recent movers said they used their cell phone for all or almost all of their calls. For Stayers, 22% used their cell phone for all or most all of their calls. In comparison, 12 percent more recent movers use their cell phone for all or most calls.

For Question Q21a, we found a statistically significant difference between recent movers and stayers. Recent movers were more likely than stayers to have a working cell phone (P-value = 0.0054 in a chi-square test). For Question Q21b, among households with at least one working cell phone, we again found a statistically significant difference between recent movers and stayers. Recent movers had more working cell phones in their household on average (mean = 1.65, SD = 0.93) than did stayers (mean = 1.33, SD = 0.67) (P-value = 0.0028 in a two-sample t-test). For Question 21c, among households with at least one working cell phone, we found a statistically significant difference showing that recent movers were more likely than stayers to receive all or almost all telephone calls on a cell phone (P-value = 0.0123 in a chi-square test).

Question 21a. Do you or anyone in your family have a working cell phone?

_	5 414	24
	Recent Mover	Stayer
Total	100% (207)	100% (206)
Yes	62% (128)	49% (100)
No	37% (77)	51% (105)
Don't Know	0% (0)	0% (1)
Refused	1% (2)	0% (0)

Q21b. How many working cell phones do you or people in your family have?

	Recent Mover	Stayer
Total	100% (130)	100% (101)
1	55% (71)	73% (74)
2	32% (41)	22% (22)
3	8% (10)	2% (2)
4	2% (2)	1% (1)
5	3% (4)	1% (1)
6	0% (0)	0% (0)
7	0% (0)	0% (0)
8	0% (0)	0% (0)
9	0% (0)	0% (0)
10	0% (0)	0% (0)
98 (Don't Know)	0% (0)	1% (1)
99 (Refused)	2% (2) *	0% (0)

<sup>\*</sup>The total is greater than 100% due to rounding.

Q21c. Of all the telephone calls that you or your family receives, are...

2210. Of all the telephone cans that you of your ranning receives, arem			
	Recent Mover	Stayer	
Total	100% (128)	100% (101)	
1 All or almost all calls			
received on cell phones	34% (44)	22% (22)	
2 Some received on cell phones and some on regular phones	45% (58)	42% (42)	
3 Very few or none on cell phones	20% (25)	36% (36)	
8 Don't Know	1% (1)	1% (1)*	
9 Refused	2% (2)*	0% (0)	

<sup>\*</sup>The total is greater than 100% due to rounding.

#### 3.7 RENO-SPARKS

Overall, between October 6<sup>th</sup> and November 14<sup>th</sup>, 404 respondents completed the Fair Market rent survey for Reno-Sparks, NV of which 201 were Recent Movers and 203 were Stayers. For all renters the 40<sup>th</sup> percentile gross rent is \$868.00 with a standard error (SE) of \$11.51 giving the 95% confidence interval a range of \$843.94 to \$889.07. The percentage difference of the half width around the estimate is 2.6%.

For the 201 recent movers the 40<sup>th</sup> percentile blended gross rent is \$842.46 with a SE of \$15.34 giving the 95% confidence interval a range of \$809.90 to \$870.03. The percentage difference of the half width around the estimate is 3.6%.

For the 144 two-bedroom recent movers the 40<sup>th</sup> percentile gross rent is \$852.60 with a SE of \$23.05 giving the 95% confidence interval a range of \$800.00 to \$890.37. The percentage difference of the half width around the estimate is 5.3%.

Regarding the gross rent by bedroom size for all renters the gross rent of a one-bedroom unit is \$676.40 (122 respondents) while the gross rent for a two-bedroom unit is \$881.20 (282 respondents) and the gross rent for the two-bedroom equivalent unit (blended rate) is \$868.00 (all 404 respondents).

For recent movers the gross rent of a one-bedroom unit is \$675.00 (57 respondents) while the gross rent for a two-bedroom unit is \$852.60 (144 respondents) and the gross rent for the two-bedroom equivalent is \$842.46 (all 201 recent movers).

For non-recent movers or stayers the gross rent of a one-bedroom unit is \$674.00 (65 respondents) while the gross rent for a two-bedroom unit is \$906.80 (138 respondents) and the gross rent for the two-bedroom equivalent is \$887.40 (all 203 stayers).

#### **3.71 Rates**

#### **TABLE 11**

AAPOR	Percent
Response Rate 3	42.9
Cooperation Rate 3	89.4
Refusal Rate 3	5
Contact Rate3	94.2

The AAPOR Response Rate3 calculation is 42.9% for Reno-Sparks. The AAPOR Cooperation Rate is 89.4%, the Refusal Rate is 5% and the Contact Rate is 94.2%.

# 3.72 Final Dispositions

**TABLE 12** 

I ADLE 12		
		Reno-
AAPOR		Sparks, NV
Final		Final
Disposition		
Codes		
1.0/1.10	Complete	404
1.200	Partial	24
2.110	Refusal	20
2.111	Household-level refusal	3
2.120	Break off	1
2.200	Non-contact	27
2.222	Answering machine household-message left	1
2.310	Deceased respondent	1
2.332	Respondent language problem	2
2.333	No interviewer available for needed language	1
3.120	Always busy	992
3.130	No answer	5470
3.160	Technical phone problems	3776
3.200	Housing unit, unknown if eligible respondent	10920
3.210	No screener completed	46
3.900	Other	50
4.200	Fax/data line	2833
4.300	Non-working/disconnect	7874
4.420	Cell phone	45
4.540	Business, government office, other	0000
4.510	organizations	3200
4.700	No eligible respondent	8008
	Total phone numbers used	43698

Table 12 shows the breakdown of the 43,698 numbers released for the survey in Reno-Sparks, NV.

#### 3.73 Cell phone questions

For the final wave Questions 21a, 21b, and 21c were added. The purpose was to gather information about respondent cell phone usage in Reno-Sparks. Table numbers in parentheses represent the raw number of respondents. In Minot, we see approximately 50% of both recent movers (49%) and stayers (50%) have a cell phone. Of those with cell phones, 88% of the recent movers had either one or two cell phones among family members, while 95% of the stayers had one or two cell phones among family members. Finally, despite calling the respondent on a landline phone, 36% of the recent movers said they used their cell phone for all or almost all of their calls. For Stayers, 21% used their cell phone for all or most all of their calls. In comparison, 15 percent more recent movers use their cell phone for all or most of their calls.

For Question Q21a, we found no statistically significant difference between recent movers and stayers in the percentage of households that have a working cell phone (P-value = 0.9205 in a chi-square test). For Question Q21b, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the average number of working cell phones in the household (P-value = 0.2240 in a two-sample t-test). For Question 21c, among households with at least one working cell phone, we found no statistically significant difference between recent movers and stayers in the relative frequency in which they receive landline and cell phone calls (P-value = 0.0556 in a chi-square test).

Q21a. Do you or anyone in your family have a working cell phone?

	Recent Mover	Stayer
Total	100% (201)	100% (203)
Yes	49% (99)	50% (102)
No	50% (100)	50% (101)
Don't Know	0% (0)	0% (0)
Refused	1% (2)	0% (0)

O21b. How many working cell phones do you or people in your family have?

	Recent Mover	Stayer
Total	100% (101)	100% (102)
1	57% (58)	59% (60)
2	31% (31)	36% (37)
3	7% (7)	2% (2)
4	2% (2)	0% (0)
5	0% (0)	0% (0)
6	0% (0)	0% (0)
7	0% (0)	0% (0)
8	0% (0)	0% (0)
9	0% (0)	0% (0)
10	0% (0)	0% (0)
98 (Don't Know)	1% (1)	2% (2)
99 (Refused)	2% (2)	1% (1)

Q21c. Of all the telephone calls that you or your family receives, are...

	Recent Mover	<b>Stayer</b> 100% (102)	
Total	100% (101)		
1 All or almost all calls received on cell phones	36% (36)	21% (21)	
2 Some received on cell phones and some on regular phones	37% (37)	45% (46)	
3 Very few or none on cell phones	25% (25)	31% (32)	
8 Don't Know 1% (1)		3% (3)	
9 Refused	2% (2)*	0% (0)	

<sup>\*</sup>The total is greater than 100% due to rounding.

#### 4. CONCLUSION

All four markets surveyed demonstrated AAPOR response rates above 40% with Reno-Sparks at 42.9% and Minot at 55.4%. Table 13 below summarizes all four markets and their AAPOR rates.

**TABLE 13 Overall AAPOR Response Rate 3 Results** 

Market	AAPOR Response Rate3	AAPOR Cooperation Rate3	AAPOR Refusal Rate3	AAPOR Contact Rate3
Gulfport- Biloxi	54.6	85.3	9.9	90.1
New Orleans	50.9	86.8	10.5	96.9
Minot	55.4	90.4	6	98.3
Reno-Sparks	42.9	89.4	5	94.2

To reach the respondents MDAC utilized the services of the GENESYS System (Marketing Systems Group, Inc.) to generate sample. To generate the sample the GENESYS System employed a list-assisted random digit dialing methodology. List-assisted refers to the use of commercial lists of directory-listed telephone numbers to increase the likelihood of dialing household residences. This method gives unlisted telephone numbers the same chance to be selected as directory-listed numbers. The system utilized a database consisting of all residential telephone exchanges, working bank information, and various geographic service parameters such as state, county, Primary ZIP code, etc. and provided a representative sample as every potential telephone number within the defined sample frame had a known and equal probability of selection.

Reported are separate market analysis sections where the 40<sup>th</sup> percentile fair market rents are calculated separately for 1, 2 and where relevant, 3 bedroom units for all renters, for recent movers, and for stayers. The average rents vary by market. All 4 survey areas resulted in the interval half-widths being within 5% of the estimate for the blended rate of recent movers (4.0% Gulfport-Biloxi, 3.7% in New Orleans, 4.1% in Minot, and 3.6% in Reno-Sparks).

The recent mover 40<sup>th</sup> percentile Fair Market Rent (blended) was utilized for all Markets. The Fair Market rent for Gulfport-Biloxi was \$741.26 with a standard error of \$15.07 and a percentage difference of half width around the estimate of 4.0%. For New Orleans the Fair Market Rent is \$860.42 with a standard error of \$16.15 and a percentage difference of half width around the estimate of 3.7%. For Minot (non-metropolitan) the Fair Market Rent is \$622.69 with a standard error of \$12.89 and a percentage difference of half width around the estimate of 4.1%,

while for Reno-Sparks the Fair Market Rent is \$842.46 with a standard error of \$15.34 and a percentage difference of half width around the estimate of 3.6%.

In addition to determining the Fair Market Rent for each area, we were concerned about whether the survey suffered from any bias from having landline-only sample and no cell phone sample. Therefore, we added three cell phone questions to this survey. In Question 21, we asked three questions about cell phone possession and use. In Question 21 (a) we asked if the respondent or anyone in their family had a working cell phone. In Question 21 (b) we asked how many cell phones the family possessed, and in Question 21 (c) we asked to what extent the respondent and their families used the cell phone for their calls. The results were statistically significant only in Minot. The results showed that recent movers in the Minot market were more likely to have cell phones, had more cell phones in the household on average, and were more likely to use their cell phone for all or almost all their calls.

For Question 21(a), one market showed more than a 10% difference in the likelihood to use a cell phone. Minot recent movers were 13% more like to use a cell phone. New Orleans showed a small percentage difference with recent movers 4% more likely to use a cell phone. For Gulfport-Biloxi and Reno-Sparks, there was only a small difference with Stayers more likely to use a cell phone. For Reno-Sparks, one percent of Stayers were more likely to use a cell phone, and for Gulport-Biloxi, three percent of Stayers were more likely to use a cell phone. As stated above though, statistically significant results occurred only in Minot.

For Question 21(b), for those who had cell phones, almost 90% of all respondent families had one or two cell phones. For Gulfport-Biloxi, 96% recent movers and 91% of stayers had one or two cell phones among family members. For New Orleans, 90% Recent Movers and 92% of Stayers had one or two cell phones among family members. For Minot, 87% of Recent Movers and 95% of Stayers had one or two cell phones among family members. In Minot, recent movers also had more cell phones in their household, on average, than did stayers (1.65 cell phones for recent movers and 1.33 cell phones for stayers). For Reno-Sparks, 88% of Recent Movers and 95% of Stayers had one or two cell phones among family members. Again, as in 21(a), statistically significant results occurred only the Minot.

For Question 21(c), between seven and fifteen percent more Recent Movers than Stayers used their cell phone for all or almost all their phone calls. In Gulfport-Biloxi, 26% of Recent Movers and 19% of Stayers said they used their cell phone for all or almost all of their calls. In New Orleans, 31% of Recent Movers and 21% of Stayers said they used their cell phones for all or almost all of their calls. In Minot, 34% Recent Movers and 22% of Stayers said they used their cell phones for all or almost all of their calls, while in Reno-Sparks 36% Recent Movers and 21% of Stayers said they used their cell phones for all or almost all of their calls. However, as in 21(a) and 21(b), statistically significant results occurred only in Minot.

Determining the level of bias occurring in utilizing a landline-only sample, and not including a cell-phone sample, can be addressed by further research beyond the scope of this survey. We include these figures to take an initial step in assisting HUD in determining the level of cell phone use by landline respondents.

The results of the cell phone questions show noteworthy data. The results show that approximately half the landline respondents also use cell phones. Even though we contacted people on landline phones, approximately 26%-36% of recent movers said they use their cell

phone for all or almost all of their calls. In contrast, only 19% to 22% of Stayers said they use their cell phone for all or almost all of their calls. In addition, this survey does not include respondents who use only their cell phone. We do not capture the level of sample bias resulting from respondents who use only their cell phone because cell phone-only users were not surveyed.

These cell phone results raise an important issue for HUD to address. As cell phone usage continues to grow, HUD needs to determine if they should add cell phone sample to future surveys. As we can see from the above numbers, recent movers are more likely to use their cell phone for all or almost all calls. If approximately 33% of renters use only their cell phone as reported by Blumberg,<sup>5</sup> and another 26%-36% of recent movers who have landline phones use their cell phone for all or almost all of their calls as shown in our above results, then conceivably in a worst-case scenario HUD could be missing up to 59% to 69% of recent mover eligible respondents by continuing with a landline-only sample.<sup>6</sup> For stayers, if approximately 33% of renters use only their cell phone and another 19% to 21% use their cell phones for all or almost all of their calls as shown in our above results, then conceivably in a worst-case scenario HUD could be missing up to 52% to 54% of stayer eligible respondents.<sup>7</sup>

On the other hand, those are worst-case scenarios. HUD's ability to acquire representativeness with landline-only samples might not be quite a problem in some markets. Cell phone penetration levels vary considerably by market. Some markets have high cell phone ownership concentrations, while others do not. Cell phone usage may be a concern for HUD's ability to acquire representative samples in some markets, but not in others. If markets have a high cell phone penetration and usage, then HUD may have cause for concern about sample representativeness. However, if markets do not have a high cell phone penetration and usage, then a landline-only sample may still be the most effective and efficient means for gathering data.

Additionally, if either recent movers or stayers are much more likely than the other to use cell phones, we may need to concern ourselves with the potential bias being much larger for one group than the other. In our results above, three of the four markets showed little difference between the groups. In Minot though, recent movers were significantly more likely to have and use cell phones. These results could cause increased concern about the representativeness of Minot's recent-mover data. In the future, HUD should consider the appropriateness of supplementing the survey with cell phone sample when this occurs.

In conclusion, HUD may wish to know the cell phone penetration levels and usage patterns (i.e., how often the cell phone is used to make and receive all or almost all calls) in advance for the markets HUD wishes to survey. Having this information in advance may allow HUD to reasonably decide whether to add cell phone sample or continue with a landline-only sample in each particular survey market.

<sup>7</sup> The cell phone questions asked in this HUD survey were the same questions Blumberg asked in his survey.

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<sup>&</sup>lt;sup>5</sup> Blumberg SJ, Luke JV, Division of Health Interview Statistics, National Center for Health Statistics, Davidson G, Davern M, Yu T, and Soderberg K, the State Health Access Data Assistance Center, University of Minnesota. National Health Statistics Report Number 14, March 2009.

<sup>&</sup>lt;sup>6</sup> This is a worst-case scenario with the 33% figure based upon Blumberg's study from March 2009.

In addition to HUD making the decision on its own, one other factor to consider is that the Office of Management and Budget (OMB) could affect whether or not HUD adds cell phone sample. OMB must give its approval before a survey can begin. Should HUD need OMB approval for future surveys, OMB might require HUD to start including cell phone sample in all future surveys. HUD should be aware of this possibility.

## **APPENDIX**

#### U.S. Department of Housing and Urban Development FY2008/9 FMR Area-specific Survey Questionnaire (Gulfport-Biloxi, MS, New Orleans, LA, Minot, ND)

the U.S. Depa housing costs to people who information y	and Screening: Hello, my name is I am calling on behalf of HUD, artment of Housing and Urban Development. HUD is conducting a study of rental in your area. This information will help the government provide housing assistance oneed it. The survey will only take a few minutes of your time; all of the ou provide will be confidential, and your participation is voluntary. This call may for quality assurance.
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, assisted-living facility, barracks or cellular telephone.]  1) Yes 2) No [Terminate and Thank]
2a.	Are you renting this property, or do you own it?  1) Rent this property  2) Own this property [Terminate and Thank]
2b.	How long have you lived at this residence?  1) Less than 24 months [Increment recent mover quota cell] 2) 24 months or more [Increment non-recent mover quota cell] 8) Don't Know [Terminate and Thank] 9) Refused [Terminate and Thank]
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 [Skip to 5] 2) No

1) Yes [Read introduction for second respondent]

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

4.

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	Res	pondent
--------------	-----	--------	-----	---------

Hello, my name is \_\_\_\_\_\_. I am calling on behalf of the U.S. Department of Housing and Urban Development. We are conducting a telephone survey on housing costs in your area. The person I just spoke with said you could help me with several questions about your housing costs. This information will help the government provide housing assistance to people who need it. The survey will only take a few minutes of your time; all of the information you provide will be confidential, and your participation is voluntary. This call maybe monitored for quality assurance.

- 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 and thank. If non-metropolitan area, continue and collect bedroom size.]
  - 4 Four or more [Terminate and Thank]
  - 5 None; efficiency [Terminate and Thank]

NOTE: For metropolitan areas only 1-bedroom and 2-bedroom units are surveyed. For non-metropolitan areas, 1-bedroom, 2-bedroom, and 3-bedroom units are surveyed.

- 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 and Thank]
  - 8 Don't Know [Terminate and Thank]
  - 9 Refused [Terminate and Thank]
- 6a. Apart from utility costs, does this unit rent for the same amount every month of the year?
  - 1 Yes [Skip to 7]
  - 2 No
  - 8 Don't Know {Skip to 7]]
  - 9 Refused [Skip to 7]

# Q6B. Why is that? Is it because: [INTERVIEWER NOTE: PLEASE READ THE ENTIRE LIST]

- 1 Owners charge different rents during the summer or winter vacation season? [If Yes, terminate and thank]
- 2 Owners charge different rents during the school year? [If Yes, terminate and thank]
- 3 Because of a variation in utility costs, such as air conditioning or heating?)[If Yes, continue with Q7]
- 7 Or some other reason? [Skip to 6B O]
- 8 DON'T KNOW [Terminate and Thank]
- 9 REFUSED [Terminate and Thank]

"In this question we are trying to make sure the rent can vary from month to month and it is not because of changes in utility costs. Those that answer yes to number 3 and number 7 will continue with the survey, for all other responses, the survey will be terminated."

6B O. Other specify. [Open-ended box with 200 characters, Go to Q7]

- 7. Is your building owned by a public housing authority?
  - 1. Yes [Terminate and Thank]
  - 2. No
  - 8. Don't Know [Terminate and Thank]
  - 9. Refused [Terminate and Thank]
- \* Help Screen available for this question, Press F1 to read this screen. "In this question we are trying to determine if the rental unit is owned and operated by a local public housing authority. A public housing authority is a local housing agency that owns and operates rental units which are rented to low income individuals or families."

*Press* "enter/return" to go back to the main body of the questionnaire.

- 8. Is your residence owned by a relative?
  - 1. Yes [Terminate and Thank]
  - 2. No
  - 8. Don't Know [Terminate and Thank]
  - 9. Refused [Terminate and Thank]
- 9. Was the building you live in built within the last two years?
  - 1. Yes-built within last two years [Terminate and Thank]
  - 2. No over 2 years old
  - 8. Don't Know [Terminate (after probing)]
  - 9. Refused [Terminate (after probing)]

- 10. Do you perform any work for your landlord in exchange for a reduction in rent?
  - 1. Yes
  - 2. No [Skip to 12]
  - 8. Don't Know [Skip to 12]
  - 9. Refused [Skip to 12]
- \* Help Screen available for this question, Press F1 to read this screen.
- "In this question we are trying to determine if the rent is reduced in return for doing work for the landlord. The survey collects information about market rents."

Press "enter/return" to go back to the main body of the questionnaire.

- 11. Does this involve more than maintenance and upkeep of your residence?
  - 1. Yes [Terminate and Thank]
  - 2. No
  - 8. Don't Know [Terminate and Thank]
  - 9. Refused [Terminate and Thank]
- \* Help Screen available for this question, Press F1 to read this screen.
- "In this question we are trying to determine if the work performed for the landlord is more than simple basic maintenance or upkeep of the residence. For example, mowing the lawn would be simple maintenance. Repairs to the building would not be simple maintenance."

Press "enter/return" to go back to the main body of the questionnaire.

- 12. Does another family or individual live in the unit who pays part of the rent?
  - 1. Yes
  - 2. No [Go To Q16]
  - 8. Don't Know
  - 9. Refused
- 13. How much is **your** monthly rent? Please do not include **separate** parking fees, or utility costs.

[INTERVIEWER NOTE: We are trying to determine the market rent for this unit by adding the amount the respondent and others pay each month. Certain utilities may be included in the rent. If the tenant pays separately for any utilities, do not add them to the rent.]

- 1 Amount Given \_\_\_\_\_[Round to the nearest dollar] [Skip to Q14]
- 8 Don't Know [Probe: "Is there someone else in the household who could tell me about your housing cost?" If no, terminate. If yes, read introduction for other respondent and go to 13B]
- 9 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 ensure that rental assistance is provided as cost-effectively as possible to area residents who most need it.

INTRODUCTION for OTHER RESPONDENT:
Hello, my name is I am calling on behalf of HUD, the U.S. Department of
Housing and Urban Development. We are conducting a telephone survey on housing costs in
your area. The person I just spoke with said you could help me with several questions about
your housing costs. This information will help the government provide housing assistance to
people who need it. The survey is brief. Your participation would be voluntary, and all the
information you provide is confidential. This call maybe monitored for quality assurance.
13B. How much is <b>your</b> monthly rent? Please do not include <b>separate</b> parking fees, or utility costs.
1. Amount Given [Round to the nearest dollar]
8. Don't Know [Terminate]
9. Refused [Read Refusal Statement]
* Help Screen available for this question, Press F1 to read this screen. "In this question we are trying to determine the total monthly rent of the unit. If individuals share a rental unit and do not know the full monthly amount, record the amount for each respondent. If the respondent pays separately for utilities or parking, do not include these amounts. If some of the utilities and/or parking are included in the rent, then report the total rent including those amounts that are included.
Press "enter/return" to go back to the main body of the questionnaire.  14. How much rent do other people pay for this unit?
1. Amount Given [Round to nearest dollar] 8. DK [[Probe: "Is there someone else in the household who could tell me about their housing cost?" If no, terminate. If yes, read "Introduction for Other Respondent" and enter amount on line 1]. 9. Refused [Read refusal statement]
15. I figure that the <b>total</b> monthly rent for your residence for everyone who lives here, including ALL assistance AND/OR subsidies is [ADD Q13A+Q14 or Q13B+Q14]. Does that sound right to you?
1 Yes [Go to Q17]
8 No [Go back to Q13]
9 Don't Know/Refused

16.	How much is the total monthly rent for your residence? Please do not include any <b>separate</b> parking or utility costs?		
	1 8	Don't Know tell m	[Round to the nearest dollar] [Probe: "Is there someone else in the household who could ne about your housing cost?" If no, terminate. If yes, read fluction for other respondent and enter amount on line 1] [Read Refusal Statement]
	,	Refused	[Read Refusal Statement]
17a.	Is part of your program?	rent, or any on	ne who lives with you, paid for by a federal, state or local
	1	Yes	
	2	No	[Go to Q18]
	8	Don't Know	
	9	Refused	[Go to Q18]
renters	receive assistants. The amou	ance in the forn int of assistance	termine if the respondent's current rent is subsidized. Many n of a subsidy payment through federal, state, or local e depends on income. In shared rental units, respond YES if a unit are subsidized."
17b.	How much w	ould the month	ly rent be without the housing assistance?
_		OTE: This am	ount should include housing assistance for the respondent unit.]
	1 8 9	Amount Giver Don't Know Refused	n [Ask if anyone else in the house would know]
from a individ	ny sources. In luals." A rent is why we are	shared rental i er is more likel	etermine the total housing subsidy this rental unit receives units, make sure to add the subsidy amount for all subsidized y to know the market rent of a unit than the subsidy amount, estion in this way. Subsides are often paid directly to the
18.	Which one of	the following b	best describes the structure where you live:
	2 Single fami 3 Duplex 4 Apartment 5 Townhouse 6 Mobile hon 7 Other, speci	ify v [Skip to 20a]	or more units tached)

18_O: Other specify: (Open-end box with 100 characters) [Go to 19]
Is this unit detached, or is it attached to other units?  1 Detached 2 Attached 8 Don't Know 9 Refused
20a. Is this the only landline telephone number that rings at your residence? [We are asking about other residential telephone landlines, not telephone extensions with the same number.]
1 Yes [Skip to 21] 2 No * Help Screen available for this question, Press F1 to read this screen. In this question we are trying to determine the number of different residential telephone numbers serving the residence.
we are not asking about the number of phones (extensions). We are asking about the number of different residential telephone lines.  Press "enter/return" to go back to the main body of the questionnaire.
20b. How many different Residential landline telephone numbers, not extension phones, ring
into your household?
1 Amount Given 8 Don't Know 9 Refused * Help Screen available for this question, Press F1 to read this screen. In this question we are trying to determine the number of different residential telephone numbers serving the residence.
We are not asking about the number of phones. We are asking about the number of different residential telephone lines.  Press "enter/return" to go back to the main body of the questionnaire.  Q21a. Do you or anyone in your family have a working cell phone?
1 Yes 2 No (SKIP TO Q22) 8 Don't know 9 Refused
Q21b. How many working cell phones do you or people in your family have?  (1-10 cell phones)  DON'T KNOW = 98  REFUSED = 99

[REA	AD LIST]
1 2 3 8 9	All or almost all calls received on cell phones Some received on cell phones and some on regular phones Very few or none on cell phones Don't know Refused
•	ou pay separately for utilities such as heat, air conditioning, lights, water, cooking collection? [If no, PROBE: "Do you pay any utility bills?"]
	1 Yes 2 No [Go to Q35] 8 Don't Know 9 Refused
23. Is the	cost of heating included in your rent, or do you pay separately for heating fuel?  1 Included in rent [Skip to 25]  2 Pay separately  3 Unit does not have heating system [Skip to 25]  8 Don't Know [Skip to 25]  9 Refused [Skip to 25]
24. What	primary type of fuel do you use for heating?  1 Electricity 2 Natural gas 3 Bottled gas (propane, butane, petrolane) 4 Fuel oil 7 Other, specify 8 Don't Know 9 Refused
24_O: Other	specify. Open end box- 100 characters.
1 Inc. 2 3 8	conditioning included in your rent, or do you pay separately for air conditioning? luded in Rent [Skip to 27] Pay separately Unit does not have air conditioning [Skip to 27] Don't Know [Skip to 27] Refused [Skip to 27]
1 2 7 8	Primary type of utility do you use for air conditioning? Electricity Natural gas Other Don't Know Refused
	41

Q21c. Of all the telephone calls that you or your family receives, are...

- 26 O Other open end (25 characters)
- 27. Is cooking fuel included in your rent, or do you pay separately for cooking fuel?
  - 1 Included in Rent [Skip to 29]
  - 2 Pay Separately
  - 3 Unit does not have a cooking facility [Skip to 29]
  - 8 Don't Know [Skip to 29]
  - 9 Refused [Skip to 29]
- 28. What **primary** type of utility do you use for cooking?
  - 1 Electricity
  - 2 Natural gas
  - 3 Bottled gas (Propane, butane, petrolane)
  - 7 Other, specify
  - 8 Don't Know
  - 9 Refused
- 28\_O: Other open-end box (25 characters)
- 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
  - 8 Don't Know
  - 9 Refused
- \* Help Screen available for this question, Press F1 to read this screen.
- "In this question we are trying to determine if the respondent pays separately for electricity to power the lights and refrigerator. We are not asking if they rent a refrigerator." Press "enter/return" to go back to the main body of the questionnaire.
- 30. Do you pay a separate monthly rental fee for a range or refrigerator?
  - 1 Yes
  - 2 No
  - 8 Don't Know
  - 9 Refused
- 31. Is hot water included in your rent, or do you pay separately for hot water?
  - 1 Included in rent [Skip to 33]
  - 2 Pay separately
  - 3 Unit does not have hot water [Skip to 33]
  - 8 Don't Know [Skip to 33]
  - 9 Refused [Skip to 33]

32.	What <b>primary</b> type of utility do you use for heating water?
	1 Electricity 2 Natural gas 3 Bottled gas (propane, butane, petrolane) 4 Fuel oil 7 Other, specify 8 Don't Know 9 Refused
	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 8 Don't Know 9 Refused
34.	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 8 Don't Know 9 Refused
35.	Location: Would you please tell me the county where your housing unit is located?
	Record Corresponding Code
36.	Would you please tell me the city or town where your housing unit is located?  1 Record city or town  9 Refused
37.	Could you please tell me your ZIP code? Record ZIP code
38. the res	For verification purposes only, may I have your first name? [INTERVIEWER NOTE: If pondent is reluctant to give his/her name, please ask for his/her initials]
[SPEC	IFY:}}
	respondent is reluctant to even give his/her initials, please indicate if the respondent was r female (M or F) and that he/she refused.
	are all the questions I have for you. you very much for cooperating with the survey.

# U.S. Department of Housing and Urban Development FY2008/9 FMR Area-specific Survey Questionnaire (Reno, NV)<sup>8</sup>

the U.S. Dep housing cost to people wh	n and Screening: Hello, my name is I am calling on behalf of HUD, partment of Housing and Urban Development. HUD is conducting a study of rental its in your area. This information will help the government provide housing assistance no need it. The survey will only take a few minutes of your time; all of the you provide will be confidential, and your participation is voluntary. This call may
	d for quality assurance.
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, assisted-living facility, barracks or cellular telephone.]  1) Yes
	2) No [Terminate and Thank]
2a.	Are you renting this property, or do you own it?  1) Rent this property  2) Own this property [Terminate and Thank]
	2) Switchis property [Terminate and Thank]
2b.	How long have you lived at this residence?
	<ol> <li>Less than 12 months</li> <li>12 months or more [Increment non-recent mover quota cell]</li> <li>Don't Know [Terminate and Thank]</li> <li>Refused [Terminate and Thank]</li> </ol>
2c.	Please tell me the month and year you moved into your current residence.
	Enter Month Enter Year  98. Don't Know 9998 Don't Know  99. Refused 9999 Refused
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 [Skip to 5] 2 No
4.	Is someone who <u>does</u> know available to come to the phone?  1) Yes [Read introduction for second respondent]

\_

Make sure to ask for the first name of the person to ask for at that time.]

2) No [Schedule a callback for a time when someone will be available.

<sup>&</sup>lt;sup>8</sup> Questions 2b and 2c differ from the other markets' questionnaire.

### **Introduction for Second Respondent**

Hello, my name is \_\_\_\_\_\_. I am calling on behalf of the U.S. Department of Housing and Urban Development. We are conducting a telephone survey on housing costs in your area. The person I just spoke with said you could help me with several questions about your housing costs. This information will help the government provide housing assistance to people who need it. The survey will only take a few minutes of your time; all of the information you provide will be confidential, and your participation is voluntary. This call maybe monitored for quality assurance.

- 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 and thank. If non-metropolitan area, continue and collect bedroom size.]
  - 4 Four or more [Terminate and Thank]
  - 5 None; efficiency [Terminate and Thank]

NOTE: For metropolitan areas only 1-bedroom and 2-bedroom units are surveyed. For non-metropolitan areas, 1-bedroom, 2-bedroom, and 3-bedroom units are surveyed.

- 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 and Thank]
  - 8 Don't Know [Terminate and Thank]
  - 9 Refused [Terminate and Thank]
- 6a. Apart from utility costs, does this unit rent for the same amount every month of the year?
  - 1 Yes [Skip to 7]
  - 2 No
  - 8 Don't Know {Skip to 7]]
  - 9 Refused [Skip to 7]

Q6B. Why is that? Is it because: [INTERVIEWER NOTE: PLEASE READ THE ENTIRE LIST]

- 1 Owners charge different rents during the summer or winter vacation season? [If Yes, terminate and thank]
- 2 Owners charge different rents during the school year? [If Yes, terminate and thank]
- 3 Because of a variation in utility costs, such as air conditioning or heating?)[If Yes, continue with Q7]
- 7 Or some other reason? [Skip to 6B O]
- 8 DON'T KNOW [Terminate and Thank]
- 9 REFUSED [Terminate and Thank]

"In this question we are trying to make sure the rent can vary from month to month and it is not because of changes in utility costs. Those that answer yes to number 3 and number 7 will continue with the survey, for all other responses, the survey will be terminated."

6B O. Other specify. [Open-ended box with 200 characters, Go to Q7]

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

- 1. Yes [Terminate and Thank]
- 2. No
- 8. Don't Know [Terminate and Thank]
- 9. Refused [Terminate and Thank]
- \* Help Screen available for this question, Press F1 to read this screen. "In this question we are trying to determine if the rental unit is owned and operated by a local public housing authority. A public housing authority is a local housing agency that owns and operates rental units which are rented to low income individuals or families."

Press "enter/return" to go back to the main body of the questionnaire.

- 8. Is your residence owned by a relative?
  - 1. Yes [Terminate and Thank]
  - 2. No
  - 8. Don't Know [Terminate and Thank]
  - 9. Refused [Terminate and Thank]
- 9. Was the building you live in built within the last two years?
  - 1. Yes-built within last two years [Terminate and Thank]
  - 2. No over 2 years old
  - 8. Don't Know [Terminate (after probing)]
  - 9. Refused [Terminate (after probing)]
- 10. Do you perform any work for your landlord in exchange for a reduction in rent?
  - 1. Yes
  - 2. No [Skip to 12]
  - 8. Don't Know [Skip to 12]
  - 9. Refused [Skip to 12]

*Press "enter/return" to go back to the main body of the questionnaire.* 

<sup>\*</sup> Help Screen available for this question, Press F1 to read this screen.

<sup>&</sup>quot;In this question we are trying to determine if the rent is reduced in return for doing work for the landlord. The survey collects information about market rents."

- 11. Does this involve more than maintenance and upkeep of your residence?
  - 1. Yes [Terminate and Thank]
  - 2. No
  - 8. Don't Know [Terminate and Thank]
  - 9. Refused [Terminate and Thank]

Press "enter/return" to go back to the main body of the questionnaire.

- 12. Does another family or individual live in the unit who pays part of the rent?
  - 1. Yes
  - 2. No [Go To Q16]
  - 8. Don't Know
  - 9. Refused
- 13. How much is **your** monthly rent? Please do not include **separate** parking fees, or utility costs.

[INTERVIEWER NOTE: We are trying to determine the market rent for this unit by adding the amount the respondent and others pay each month. Certain utilities may be included in the rent. If the tenant pays separately for any utilities, do not add them to the rent.]

- 1 Amount Given [Round to the nearest dollar] [Skip to Q14]
- 8 Don't Know [Probe: "Is there someone else in the household who could tell me about your housing cost?" If no, terminate. If yes, read introduction for other respondent and go to 13B]
- 9 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 ensure that rental assistance is provided as cost-effectively as possible to area residents who most need it.

#### INTRODUCTION for OTHER RESPONDENT:

Hello, my name is \_\_\_\_\_\_. I am calling on behalf of HUD, the U.S. Department of Housing and Urban Development. We are conducting a telephone survey on housing costs in your area. The person I just spoke with said you could help me with several questions about your housing costs. This information will help the government provide housing assistance to people who need it. The survey is brief. Your participation would be voluntary, and all the information you provide is confidential. This call maybe monitored for quality assurance.

<sup>\*</sup> Help Screen available for this question, Press F1 to read this screen.

<sup>&</sup>quot;In this question we are trying to determine if the work performed for the landlord is more than simple basic maintenance or upkeep of the residence. For example, mowing the lawn would be simple maintenance. Repairs to the building would not be simple maintenance."

13B. How much is <b>your</b> monthly rent? Please do not include <b>separate</b> parking fees, or utility costs.
1. Amount Given [Round to the nearest dollar]
8. Don't Know [Terminate]
9. Refused [Read Refusal Statement]
* Help Screen available for this question, Press F1 to read this screen.  "In this question we are trying to determine the total monthly rent of the unit. If individuals share a rental unit and do not know the full monthly amount, record the amount for each respondent. If the respondent pays separately for utilities or parking, do not include these amounts. If some of the utilities and/or parking are included in the rent, then report the total rent including those amounts that are included.
Press "enter/return" to go back to the main body of the questionnaire.
14. How much rent do other people pay for this unit?
1. Amount Given [Round to nearest dollar]
8. DK [[Probe: "Is there someone else in the household who could tell me about their housing cost?" If no, terminate. If yes, read "Introduction for Other Respondent" and enter amount on line 1].
9. Refused [Read refusal statement] 15. I figure that the <b>total</b> monthly rent for your residence for everyone who lives here, including ALL assistance AND/OR subsidies is [ADD Q13A+Q14 or Q13B+Q14]. Does that sound right to you?
1 Yes [Go to Q17] 8 No [Go back to Q13] 9 Don't Know/Refused
16. How much is the total monthly rent for your residence? Please do not include any <b>separate</b> parking or utility costs?
1 Amount Given[Round to the nearest dollar]
Don't Know [Probe: "Is there someone else in the household who could tell me about your housing cost?" If no, terminate. If yes, read introduction for other respondent and enter amount on line 1]
9 Refused [Read Refusal Statement]

	1	Yes	
	2	No	[Go to Q18]
	8	Don't Know	[Go to Q18]
	9	Refused	[Go to Q18]
renters receive programs. T	ve assist he amo	tance in the forrunt of assistance	termine if the respondent's current rent is subsidized. Many m of a subsidy payment through federal, state, or local e depends on income. In shared rental units, respond <b>YES</b> if e unit are subsidized."
17b. How	much w	ould the month	aly rent be without the housing assistance?
_		OTE: This am	nount should include housing assistance for the respondent unit.]
	1	Amount Give	n
	8		[Ask if anyone else in the house would know]
	9	Refused	[
from any sou individuals.'	rces. In ' A rent	n shared rental ter is more likel	letermine the total housing subsidy this rental unit receives units, make sure to add the subsidy amount for all subsidized by to know the market rent of a unit than the subsidy amount, sestion in this way. Subsides are often paid directly to the
18. Whic	h one o	f the following	best describes the structure where you live:

Is part of your rent, or any one who lives with you, paid for by a federal, state or local

[NOTE: PLEASE READ LIST]

9 Refused [Skip to 20a]

17a.

program?

18_O: Other specify: (Open-end box with 100 characters) [Go to 19]
Is this unit detached, or is it attached to other units?  1 Detached 2 Attached 8 Don't Know 9 Refused
20a. Is this the only landline telephone number that rings at your residence? [We are asking about other residential telephone landlines, not telephone extensions with the same number.]
1 Yes [Skip to 21] 2 No * Help Screen available for this question, Press F1 to read this screen. In this question we are trying to determine the number of different residential telephone numbers serving the residence.
We are not asking about the number of phones (extensions). We are asking about the number of different residential telephone lines.  Press "enter/return" to go back to the main body of the questionnaire.
20b. How many different Residential landline telephone numbers, not extension phones, ring into your household?
1 Amount Given 8 Don't Know 9 Refused * Help Screen available for this question, Press F1 to read this screen. In this question we are trying to determine the number of different residential telephone numbers serving the residence.
We are not asking about the number of phones. We are asking about the number of different residential telephone lines.  Press "enter/return" to go back to the main body of the questionnaire.
Q21a. Do you or anyone in your family have a working cell phone?
1 Yes 2 No (SKIP TO Q22) 8 Don't know 9 Refused
Q21b. How many working cell phones do you or people in your family have?  (1-10 cell phones)  DON'T KNOW = 98  REFUSED = 99

-	Of all the telephone calls that you or your family receives, are  [READ LIST]
	All or almost all calls received on cell phones Some received on cell phones and some on regular phones Very few or none on cell phones Don't know Refused
	Do you pay separately for utilities such as heat, air conditioning, lights, water, cooking trash collection? [If no, PROBE: "Do you pay <u>any</u> utility bills?"]
	1 Yes 2 No [Go to Q35] 8 Don't Know 9 Refused
23.	Is the cost of heating included in your rent, or do you pay separately for heating fuel?  1 Included in rent [Skip to 25] 2 Pay separately 3 Unit does not have heating system [Skip to 25] 8 Don't Know [Skip to 25] 9 Refused [Skip to 25]
24.	What <b>primary</b> type of fuel do you use for heating?  1 Electricity 2 Natural gas 3 Bottled gas (propane, butane, petrolane) 4 Fuel oil 7 Other, specify 8 Don't Know 9 Refused
24_O: 0	Other specify. Open end box- 100 characters.
25.	Is air conditioning included in your rent, or do you pay separately for air conditioning?  1 Included in Rent [Skip to 27]  2 Pay separately  3 Unit does not have air conditioning [Skip to 27]  8 Don't Know [Skip to 27]  9 Refused [Skip to 27]
	What <b>primary</b> type of utility do you use for air conditioning?  1 Electricity 2 Natural gas 7 Other 8 Don't Know 9 Refused Other open end (25 characters)
	51

27.	Is cooking fuel included in your rent, or do you pay separately for cooking fuel?
	1 Included in Rent [Skip to 29] 2 Pay Separately 3 Unit does not have a cooking facility [Skip to 29] 8 Don't Know [Skip to 29] 9 Refused [Skip to 29]
28.	What <b>primary</b> type of utility do you use for cooking?  1 Electricity 2 Natural gas 3 Bottled gas (Propane, butane, petrolane) 7 Other, specify 8 Don't Know 9 Refused
28_O:	Other open-end box (25 characters)
29 lightin	Is the cost of lighting and refrigeration included in your rent, or do you pay separately for g or refrigeration?
"In the	1 Included in rent 2 Pay separately 3 Unit does not have lighting or refrigeration 8 Don't Know 9 Refused 2 Screen available for this question, Press F1 to read this screen. 2 is question we are trying to determine if the respondent pays separately for electricity to the lights and refrigerator. We are not asking if they rent a refrigerator." Press refreturn" to go back to the main body of the questionnaire.
30.	Do you pay a separate monthly rental fee for a range or refrigerator?  1 Yes 2 No 8 Don't Know 9 Refused
31.	Is hot water included in your rent, or do you pay separately for hot water?  1 Included in rent [Skip to 33] 2 Pay separately 3 Unit does not have hot water [Skip to 33] 8 Don't Know [Skip to 33] 9 Refused [Skip to 33]
32.	What <b>primary</b> type of utility do you use for heating water?

1 Electricity 2 Natural gas

	3 Bottled gas (propane, butane, petrolane) 4 Fuel oil
	7 Other, specify
	8 Don't Know
	9 Refused
33. Is sewag	a water or sewage fee included in your rent, or do you pay separately for water and e?
	1 Included in rent
	2 Pay separately
	3 Unit does not have water and sewage
	4 Water and sewage supplied by city
	8 Don't Know
	9 Refused
34.	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
	8 Don't Know
	9 Refused
35.	Location: Would you please tell me the county where your housing unit is located?
	Record Corresponding Code
36.	Would you please tell me the city or town where your housing unit is located?  1 Record city or town 9 Refused
37.	Could you please tell me your ZIP code? Record ZIP code
38. the res	For verification purposes only, may I have your first name? [INTERVIEWER NOTE: If spondent is reluctant to give his/her name, please ask for his/her initials]
[SPEC	CIFY:}
	respondent is reluctant to even give his/her initials, please indicate if the respondent wa. or female (M or F) and that he/she refused.
	are all the questions I have for you.  you very much for cooperating with the survey.
1 mank	you very much for cooperating with the survey.

# Utility costs in the four markets.

Code	Utility	New Orleans, LA	Gulfport- Biloxi, MS	Reno- Sparks, NV MSA	ND: Ward County
HEATD	•				•
N1	Detached Natural Gas - 1BR	12	9	47	91
HEATD N2	Detached Natural Gas - 2BR	15	12	59	118
HEATD	Detached Natural Gas - 2BK	13	1.2	39	110
N3	Detached Natural Gas - 3BR	18	14	71	144
HEATD					
B1	Detached LPG - 1BR	17	8	75	234
HEATD	D. I. LING ADD	21	10	0.6	201
B2 HEATD	Detached LPG - 2BR	21	10	96	301
B3	Detached LPG - 3BR	25	12	117	368
HEATD					
F1	Detached Fuel Oil - 1BR	0	5	64	315
HEATD			4.0	0.0	40.5
F2 HEATD	Detached Fuel Oil - 2BR	0	10	82	405
F3	Detached Fuel Oil - 3BR	0	15	100	495
HEATD	Detached 1 del Oil - 3BR	V	13	100	773
E1	Detached Electric - 1 BR	24	5	60	84
HEATD					
E2	Detached Electric - 2 BR	26	10	77	108
HEATD E3	Detached Electric - 3 BR	28	15	94	132
HEATD	Detached Electric - 3 BK	20	13	24	132
01	Detached Other - 1BR	0	0	0	91
HEATD					
O2	Detached Other - 2BR	0	0	0	118
HEATD O3	Detached Other - 3BR	0	0	0	144
HEATA	Detached Other - 3BK	U	U	U	144
N1	Attached Natural Gas - 1BR	12	9	47	69
HEATA					
N2	Attached Natural Gas - 2BR	15	12	59	89
HEATA	Attached Notice 1 Co. 2DD	10	1.4	71	100
N3 HEATA	Attached Natural Gas - 3BR	18	14	71	108
B1	Attached LPG - 1BR	17	8	75	169
HEATA				, , ,	100
B2	Attached LPG - 2BR	21	10	96	218
HEATA					
В3	Attached LPG - 3BR	25	12	117	266

Code	Utility	New Orleans, LA	Gulfport- Biloxi, MS	Reno- Sparks, NV MSA	ND: Ward County
HEATA		_			
F1	Attached Fuel Oil - 1BR	0	5	64	233
HEATA F2	Attached Fuel Oil - 2BR	0	10	82	299
HEATA	Attached Fuel Oil - 2BK	U	10	62	299
F3	Attached Fuel Oil - 3BR	0	15	100	366
HEATA			_		
E1	Attached Electric - 1 BR	24	5	59	65
HEATA E2	Attached Electric - 2 BR	26	10	76	83
HEATA E3	Attached Electric - 3 BR	28	15	93	102
HEATA O1	Attached Other - 1BR	0	0	0	69
HEATA O2	Attached Other - 2BR	0	0	0	89
HEATA					
O3	Attached Other - 3BR	0	0	0	108
AC1	Air Conditioning - 1BR	31	50	16	9
AC2	Air Conditioning - 2BR	38	10	20	9
AC3	Air Conditioning - 3BR	49	15	25	9
COOKG 1	Cooking Natural Cos 1DD	4	6	7	4
COOKG	Cooking - Natural Gas - 1BR	4	0	/	4
2	Cooking - Natural Gas - 2BR	5	7	9	6
COOKG	Cooking - Ivaturar Gas - 2DiC	3	,	,	0
3	Cooking - Natural Gas - 3BR	7	8	11	7
COOKB	5				
1	Cooking - LPG - 1BR	6	5	12	0
COOKB					
2	Cooking - LPG - 2BR	7	6	16	0
COOKB	C 1: INC 2DD	10	7	20	
3	Cooking - LPG - 3BR	10	7	20	0
COOKE 1	Cooking - Electric - 1BR	6	5	10	5
COOKE	Cooling Electric 1510	- C		10	
2	Cooking - Electric - 2BR	8	6	12	6
COOKE 3	Cooking - Electric - 3BR	9	7	15	8
LIGHT1	Main Electric - 1 BR	16	49	26	24
LIGHT2	Main Electric - 2 BR	18	50	32	31
LIGHT3	Main Electric - 3 BR	20	52	38	37
HOTW	Hot Water - Natural Gas -				
N1	1BR	8	11	19	11

Code	Utility	New Orleans, LA	Gulfport- Biloxi, MS	Reno- Sparks, NV MSA	ND: Ward County
HOTW	Hot Water - Natural Gas -				
N2	2BR	11	13	24	13
HOTW N3	Hot Water - Natural Gas - 3BR	12	15	30	17
HOTW					
B1	Hot Water - LPG - 1BR	11	9	33	0
HOTW					
B2	Hot Water - LPG - 2BR	15	11	42	0
HOTW B3	Hot Water - LPG - 3BR	17	12	51	0
HOTWF 1	Hot Water - Fuel Oil - 1BR	0	18	27	0
HOTWF 2	Hot Water - Fuel Oil - 2BR	0	20	35	0
HOTWF	Hot water - Fuer Oil - 2BK	U	20	33	U
3	Hot Water - Fuel Oil - 3BR	0	23	43	0
HOTWE 1	Hot Water - Electric - 1BR	19	18	30	13
HOTWE 2	Hot Water - Electric - 2BR	22	20	38	16
HOTWE 3	Hot Water - Electric - 3BR	25	23	47	20
HOTW O1	Hot Water - Other - 1BR	0	0	0	0
HOTW	Hot water - Other - TBK	U	U	U	U
O2	Hot Water - Other - 2BR	0	0	0	0
HOTW O3	Hot Water - Other - 3BR	0	0	0	0
SEWER 1	Water and Sewer - 1BR	17	26	104	39
SEWER		1,	20	101	37
2	Water and Sewer - 2BR	29	36	104	50
SEWER 3	Water and Sewer - 3BR	38	49	104	55
TRASH				<u> </u>	
1	Trash - 1BR	13	12	17	0
TRASH 2	Trash - 2BR	13	12	17	0
TRASH 3	Trash - 3BR	13	12	0	0
RANGE 1	Rental for Range and Refrig 1 BR	10	10	20	0
RANGE 2	Rental for Range and Refrig 2 BR	10	10	20	0

		New Orleans,	Gulfport- Biloxi,	Reno- Sparks, NV	ND: Ward
Code	Utility	LA	MS	MSA	County
RANGE	Rental for Range and Refrig.				
3	- 3 BR	12	10	0	0