Appendix A: Data Notes, Methodologies, and Sources

Appendix A describes the data and methodological underpinnings of *Out of Reach*. Following a description of each subject, a link to the primary data source is provided. In some instances, supplementary material is also cited. Information on how to calculate and interpret the data can be found in the sections "Where the Numbers Come From" and "How to Use the Numbers," which immediately follow the introduction at the front of the report.

Fair Market Rent Area Definitions

Each year, HUD determines Fair Market Rents (FMRs) for metropolitan and rural housing markets across the country. In metropolitan areas, HUD tries to use the most current Office of Management and Budget (OMB) metropolitan area definitions to define housing market boundaries for its FMR areas. Since FMR areas are meant to reflect cohesive housing markets, simply adopting the OMB definitions for administrative purposes is not always preferable. Also, significant changes to area definitions can affect current recipients. Thus, in keeping with guidance to all federal agencies from OMB, HUD modifies the boundaries in some instances for purposes of program administration.

Reacting to OMB's sweeping post-census overhaul of metropolitan area definitions in 2003, HUD developed FMR areas in 2005 that incorporated these new definitions, but modified them if a county (or town) to be added to an FMR area under those definitions had 2000 rents or incomes that deviated more than 5% from the newly defined metropolitan area.[1] HUD (and *Out of Reach*) refers to unmodified OMB-defined areas as Metropolitan Statistical Areas (MSAs) and modified areas as HUD Metro FMR Areas (HMFAs).

FY11 FMR areas incorporate the most recent (December 2009) OMB update of metropolitan area definitions. There were several differences between the FY10 and FY11 FMR areas in Alaska. A name change reflecting the annexation of an area by the Ketchikan Gateway Borough affected a nonmetropolitan borough formerly known as Prince of Wales-Ketchikan Census Area. This borough is now named Prince of Wales-Hyder Census Area. Two other Alaskan boroughs were split. Skagway-Hoonah-Angoon became Hoonah-Angoon and Skagway boroughs. Wrangell-Petersburg became Wrangell and Petersburg boroughs.

Finally, there was a change in the principal cities of three metropolitan areas: North Port-Bradenton-Sarasota, FL MSA, Crestview-Fort Walton Beach-Destin, FL MSA, and Steubenville-Weirton, OH-WV MSA.

In cases in which an FMR area crosses state lines, this report provides an entry for the area under both states. While the Housing Wage, FMR, and Area Median Income (AMI) values apply to the entire FMR area and will be the same in both states,

[1] See Appendices A and B in *Out of Reach 2006* for additional information on HUD's methodologies and their effects on FMR area definitions.

other data such as the number of renter households and the minimum and renter wages apply only to the portion of the FMR area within that state's borders.

Fair Market Rents

Since FY05, data from Census 2000 have provided the foundation for HUD's calculation of FMRs. From FY05 until FY07, FMRs were updated from year to year based on either the Consumer Price Index (CPI) or periodic Random Digit Dialing (RDD) surveys. Since FY08, however, information from the American Community Survey (ACS) – an annual survey conducted by the U.S. Census Bureau that replaced the "long form" of the decennial census in 2010 – has provided more recent and more localized data on rental cost trends. Random Digit Dialing (RDD) surveys are now used only under select circumstances in response to public comments.

The way in which ACS data are used to develop FMRs depends on the population of the FMR area and the subsequent number of survey responses that it yields. For most areas, data on rent levels from the 2005 ACS are compared to Census 2000 data, and a 2001-05 update factor is calculated. If the area has a large enough population, the data are drawn from the specific FMR area; but for most, the update factors are based on rent data from more populous geographies (e.g., a metropolitan area, a portion of the state, or the entire state) of which they are a constituent part. Regardless, the update factor is used to project "base rents" from Census 2000 to 2005 intermediate rents.

The methodology differs somewhat for a handful of the largest FMR areas. For areas with enough recent movers responding to the survey, ACS data from 2005 are used to set 2005 intermediate rents rather than to update data from the last census.[2]

HUD uses a similar methodology and more recent ACS data to project intermediate rents to 2008. In the majority of cases, 2008 ACS data are simply used to trend the 2007 intermediate rents forward one year. The update factor is based on data from the FMR area itself if the ACS generated enough survey responses to develop a reliable rent figure; otherwise, the update factor is based on the change in rents at the state-level. And again, for some of the largest FMR areas, 2008 ACS data are used to directly determine the intermediate rents rather than to update previous estimates.

Regardless of the methodology used to develop them, 2008 intermediate rents are trended through 2009 using local or regional CPI data and then increased at an annual rate of 3% for five quarters or 1.25 years to project FMRs to April 1, 2011.[3]

Many RDDs conducted between 2001 and 2006 are not incorporated into current FMRs because ACS data are thought to be more reliable. However, RDDs conducted since 2006 are incorporated into the FY11 FMRs if they are significantly different than the ACS-based estimates. As of March 2011, HUD

[2] See Appendix A in *Out of Reach 2007-2008* and an overview provided by HUD (www.huduser.org/datasets/fmr/fmrover_071707R2.doc) for more detailed information on HUD's incorporation of ACS data into the calculation of FY08 Fair Market Rents.
[3] Documentation on the development of the FMR for each County and Metropolitan Area can be accessed at www.huduser.org/portal/datasets/fmr/fmrs/docsys.html&data=fmr11

was working on completing RDD surveys to address comments submitted in the time period leading up to the release of the FY11 FMRs.

The methodological shift in calculating FMRs – from a reliance on CPI inflation factors and RDDs to the utilization of ACS data – is widely seen as an improvement and is expected to produce better estimates of local rents. For the roughly 2,500 FMR areas nationwide, the two-bedroom FMR is 1.5% higher, on average, than in FY10. However, this methodology can create more year-to-year variability and does produce a lower two-bedroom FMR in many instances.[4]

This edition of *Out of Reach* compares an area's current FMR with its Census 2000 base rent. Census 2000 base rents for the current FMR area definitions, which are available through HUD's FMR Documentation System, make it possible to calculate the percentage increase in FMRs over the last eleven years.[5]

HUD provides an online tool that illustrates the rationale behind each FMR area definition and the calculation of each FMR. HUD also publishes PDF and Excel files that list the counties and towns included in each area and their FY11 FMRs. These resources are available at www.huduser.org/datasets/fmr.html.

[4] Among the lower FMRs, the average drop was $10 or 1.4%. The majority of the lower FMRs (70%) dropped 2% or less.
[5] This calculation is not influenced by changes in an area's designation as a 40th or 50th percentile FMR area and therefore represents the actual increase in rents over the eleven-year period.

Appendix B contains excerpts from HUD's Notice of Final Fair Market Rents and includes a link to the full document.

40th and 50th Percentile FMR Designation

According to an interim rule (65 FR 58870) published in 2000, HUD is required to set FMRs at the 50th percentile rent, rather than the 40th, in large metropolitan areas with concentrated poverty. This rule was established to expand rental opportunities by making units in less-impoverished areas affordable to Housing Choice Voucher holders. Once designated, the FMR area retains its 50th percentile rent for three years, at which time HUD reviews it for continuing eligibility.

None of the areas designated with a 50th percentile voucher payment standard for FY10 were eligible for a three year review for FY11. As a result, all 17 areas designated with a 50th percentile rent remain eligible for FY11. Of the 17 areas designated, ten will be eligible for evaluation in FY12. An additional seven current 50th percentile FMR areas will be evaluated in FY13.

One additional area that was not designated as 50th percentile FMR in FY10 has now been designated as a 50th percentile area as of October 1, 2010 and will be reviewed again in 3 years. This area is Bergen-Passaic, NJ HMFA. An asterisk (*) is used to denote the 18 50th percentile areas in *Out of Reach*.

The last page in this appendix lists which FMR areas are currently eligible for the 50th percentile rent.

National, State, and Nonmetro Fair Market Rents

HUD calculates FMRs for metropolitan areas and nonmetro counties, but not for states, combined nonmetro areas, or the nation. The FMRs for these larger geographies provided in *Out of Reach* are calculated by NLIHC and reflect the weighted average FMR for the counties included in the larger geography. The weight used for FMRs is the number of renter households within each county from the American Community Survey (2005-2009).

Area Median Income (AMI)

At the time of the original release of *Out of Reach 2011*, HUD had not yet published its AMIs for FY11. In order to provide readers with these important data, the original release of *Out of Reach* included estimated AMIs. NLIHC came to this estimate by calculating the change in the published HUD AMIs from FY09 to FY10 and using this change factor to project forward to the estimated 2011 AMIs. A cap of 5% was placed on how much an AMI could go up or down, to smooth the estimates. The average change that resulted was an increase of .5%.

On May 31, 2011, HUD published its FY11 AMIs and this version of *Out of Reach* replaces the NLIHC estimated AMIs with HUD's official AMIs.

HUD calculates the AMI for families at the metropolitan level for more urbanized areas and at the county level for nonmetropolitan areas. The Census definition of "family" is two or more persons related by blood, marriage or adoption residing together. This family AMI value relates to the universe of all families and is not intended to apply to a specific family size.

For 2011, HUD updated the methodology used to calculate family AMIs because the 5-year (2005-2009) ACS data were published in December of 2010. Due to the availability of the 5-year ACS data, HUD discontinued use of Census 2000 data in the production of FY 2011 AMIs. Instead, the five-year ACS data, which are available for nearly all areas of geography, are used to calculate the FY 2011 AMIs. In select cases where the 1-year 2009 ACS is available, HUD uses the 1-year data if the resulting estimate is significantly different from the 5-year AMI. The 2009 AMI estimates are trended from 2009 to April, 2011 using a factor of 3%.

Based on the incomes provided by HUD and applying the assumption that no more than 30% of income should be spent on housing costs (see below), *Out of Reach* calculates the maximum affordable rent for households earning the median income and 30% of the median (extremely low income). These calculations are presented in this book, and calculations corresponding to 50% and 80% of AMI are included in the online publication. It is important to note that these are straight percentages and do not include adjustments HUD uses in calculating its "income limits" for federal housing programs.

The median incomes for states and combined nonmetropolitan areas reported in *Out of Reach* reflect the average of local AMI data weighted by the total number of households provided by the 5-year ACS (2005-2009).

A comprehensive list of the counties and towns included in FY11 income limit calculations can be found at www.huduser.org/portal/datasets/il/il11/area_definitions.pdf.

The methodology for calculating median family income estimates and a discussion of HUD's adjustments to subsequent income limits are provided in *FY2011 HUD Income Limits Briefing Material*, available at http://www.huduser.org/portal/datasets/il/il11/IncomeLimitsBriefingMaterial_FY11_v2.pdf.

Affordability

Out of Reach is consistent with federal housing policy in the assumption that no more than 30% of a household's gross income should be consumed by gross housing costs. Spending more than 30% of income on housing is considered "unaffordable."[7]

Although *Out of Reach* explicitly addresses affordability in the rental housing market, housing affordability problems are not unique to renters. *The State of the Nation's Housing: 2011*, published by Harvard University's Joint Center for Housing Studies (www.jchs.harvard.edu/publications/markets/son2011) includes an analysis of the affordability problems faced by homeowners.

[7] The Housing and Urban-Rural Recovery Act of 1983 made the 30% "rule of thumb" applicable to all current rental housing assistance programs. See Pelletiere, D. (2008). *Getting to the heart of housing's fundamental question: How much can a family afford?* Washington, DC: National Low Income Housing Coalition.

Prevailing Minimum Wage

The federal minimum wage on January 1, 2011, was $7.25 per hour; this wage was effective as of July, 2009. *Out of Reach* incorporates the federal minimum wage in effect *at the time of publication*.

According to data from the U.S. Department of Labor, the District of Columbia and 17 states had implemented a state minimum wage higher than $7.25 by January 1, 2011. In place of the lower federal rate, *Out of Reach* incorporates the prevailing minimum wage in these states. Some local municipalities have a minimum wage that is higher than the federal rate, but this local rate is not incorporated into *Out of Reach* data.

Among the statistics included in *Out of Reach* are the number of hours and subsequent full-time jobs a minimum wage earner must work to afford the FMR. If the reader would like to calculate the same statistics using a different wage such as a higher local minimum wage, a simple formula can be used for the conversion:

[hours or jobs at the published wage] *
[published wage] / [alternative wage]

For example, one would have to work 115 hours per week to afford the zero bedroom FMR in San Francisco if the minimum wage in that location was equivalent to the national rate of $7.25. However, the same FMR would be affordable in 84 hours under the higher local minimum wage of $9.92[8] (115 * $7.25 / $9.92). For further guidance, see *Out of Reach's* "Where the Numbers Come From" page or contact NLIHC research staff.

The Department of Labor (www.dol.gov/whd/minwage/america.htm) provides further information on state minimum wage laws.

Average Renter Wage

Recognizing that the minimum wage reflects the earnings of only the lowest income workers, *Out of Reach* also calculates an estimated mean renter hourly wage. This measure reflects the compensation that a typical renter is likely to receive for an hour of work by dividing average weekly earnings by 40 hours, thus assuming a full-time workweek. Earnings include several non-wage forms of compensation like paid leave, bonuses, tips, and stock options.[9]

The estimated mean renter hourly wage is based on the average weekly earnings of private (non-governmental) employees working in each county.[10] Renter wage information is based on 2009 data reported by the BLS in the Quarterly Census of Employment and Wages. For each county, mean hourly earnings are multiplied by the ratio of median renter income to median total household income in the American Community Survey (2005-2009) to arrive at an estimated average renter wage. In 13 cases, this results in an upward adjustment. Nationally, however, the median renter household earned only 65% of the overall median household income in 1999.[11]

In roughly 16% of counties, this downward adjustment to reflect the lower income of renters results in an hourly wage that is below the federal minimum wage. One likely explanation is that workers in these counties average fewer than 40 hours per week, but the mean renter wage calculation assumes weekly compensation is the product of a full-time workweek. For example, mistakenly assuming earnings from 20 hours of work were the product of a full-time workweek would underestimate the actual hourly wage by half, but it would also accurately reflect the true earnings of renters under the assumption of a full-time schedule (see next section).

As it was last year, the estimated mean renter hourly wage reported in *Out of Reach* has been adjusted to the same "as of" date assigned to FMRs and AMIs by HUD (April 1, 2011, for this fiscal year) and uses the same methodology that HUD uses to project its income estimates. Because annual average values calculated from BLS data might be considered "as of" July 1 for the calendar year for which they are reported, the data are

[8] $9.92 is the 2011 local minimum wage in San Francisco. www.sfgsa.org/index.aspx?page=411

[9] Please note this measure is different from the Estimated Renter Median Household Income (provided online), which reflects an estimate of what renter *households* are earning today and includes income not earned in relation to employment.

[10] Renter wage data for 30 counties are not provided in *Out of Reach* either because the BLS could not disclose the data for confidentiality reasons or because the number of employees working in the county was insufficient to estimate a reliable wage.

[11] Wardrip, K. & Pelletiere, D. (2007). *Research note #07-03: Putting the Housing Wage to the test.* Washington, DC: National Low Income Housing Coalition. NLIHC's tabulations of 2006 ACS data indicate that the average hourly wage reported by renter households was roughly 77% of the average overall wage.

projected to year-end 2009 using a national inflation factor. An annual rate of 3% is then used to grow renter wages for five quarters to April 1, 2011.[12]

Wage data from the Quarterly Census of Employment and Wages are available through the Bureau of Labor Statistics at www.bls.gov/cew/home.htm.

Working Hours

Calculations of the Housing Wage and of the number of jobs required at the minimum wage or mean renter wage to afford the FMR assume that an individual works 40 hours per week, 52 weeks each year, for a total of 2,080 hours per year.

Seasonal employment, unpaid sick leave, temporary lay-offs, and job changes as well as vacations prevent many individuals from maximizing their earnings throughout the year. According to Current Employment Statistics data from March 2011, the average wage earner in the U.S. worked 34.3 hours per week.[13] And in related research, NLIHC finds that 29% of renter households that earn wage or salary income do not work as many as 40 hours per week, on average.[14]

These statistics should remind the reader that not all employees have the opportunity to translate an hourly wage into full-time, year-round employment. For these households, the Housing Wage underestimates the actual hourly compensation that a worker must earn to afford the FMR. Conversely, some households include multiple wage earners or single individuals that average more than 40 hours per week at work. For these, a home renting at the FMR would be affordable even if each worker earned less than the area's stated Housing Wage, as long as their combined wages exceed the Housing Wage.

For an expanded report on hours and earnings as reported by the Bureau of Labor Statistics, see *The Employment Situation: March 2011* at http://www.bls.gov/news.release/pdf/empsit.pdf.

Supplemental Security Income (SSI)

Out of Reach compares rental housing costs with the rents affordable to individuals receiving Supplemental Security Income (SSI) payments. The numbers in *Out of Reach* are based on the maximum federal SSI payment for individuals in 2011, which is $674 per month. *Out of Reach* calculations include supplemental payments that benefit all individual SSI recipients in the following six states because the payments are centrally administered by the Social Security Administration (SSA): California, Massachusetts, Nevada, New Jersey, New York, and Vermont.

Supplemental payments provided by an additional 39 states are excluded from *Out of Reach* calculations. For some, these payments are administered by the SSA but are available only to populations with specific disabilities, in specific facilities, or in specific household settings. For the vast majority, however, the supplements are administered directly by the states, so the data

[12] Following HUD's methodology for developing FY11 AMIs, a 3% growth rate was used to trend average renter wages from year-end 2009 to April 1, 2011.
[13] Bureau of Labor Statistics. (2011, April). *The employment situation: March 2011*. Washington, DC: U.S. Department of Labor.
[14] Wardrip, K. & Pelletiere, D. (2007).

are not readily available. The only six states that do not supplement federal SSI payments are Arkansas, Georgia, Kansas, Mississippi, Tennessee, and West Virginia. Residents of Puerto Rico cannot receive federal SSI payments.

Since SSI payments are set at the state level, the published version of *Out of Reach* calculates the difference between each state's average two-bedroom FMR and the rent that is affordable for SSI recipients. Readers can calculate this gap for any geography by subtracting the rent affordable to an SSI recipient from the area's FMR.

Information on SSI payments is available through the Social Security Administration at www.ssa.gov/oact/cola/SSIamts.html. Information on state supplements can be found at www.ssa.gov/pubs/statessi.html

The Technical Assistance Collaborative, Inc., publishes a biennial report comparing Fair Market Rents with the incomes of SSI recipients. Recent editions of *Priced Out* can be found at www.tacinc.org/publications.php.

Additional Data Available Online

Data available in the print version of *Out of Reach* are limited in an effort to present the most important information clearly. Additional data can be found online at http://www.nlihc.org/oor/oor2011/

The *Out of Reach* methodology was developed by Cushing N. Dolbeare, founder of the National Low Income Housing Coalition.

Eligibility for 50^{th} Percentile Fair Market Rent

In FY11, Fair Market Rents (FMRs) were set at the 50^{th} percentile rent in 17 FMR areas where voucher tenants were concentrated in high-poverty areas. Compared with the typical 40^{th} percentile rent, this higher voucher payment standard would provide tenants with housing options in less-impoverished areas. In setting FY11 FMRs, HUD did not reevaluate any of these 17 areas because these areas have not completed three years of program participation. Among these areas, 10 will be evaluated for the proposed FY 2012 FMR publication. The additional seven FMR areas will be evaluated for the proposed FY 2013 FMR publication. Upon evaluation of areas that did not qualify for 50^{th} percentile FMRs in 2010, one new area was found to qualify for the 50^{th} percentile designation effective October 1, 2010 for a three year period. The newly qualified area is Bergen-Passaic, NJ HMFA.

Remains Eligible for 50^{th} Percentile FMR, to be Reevaluated for FY12 FMRs

Albuquerque, NM MSA
Chicago-Naperville-Joliet, IL HMFA
Hartford-West Hartford-East Hartford, CT HMFA
Kansas City, MO–KS HMFA
Richmond, VA HMFA
North Port-Bradenton-Sarasota MSA
Denver-Aurora, CO MSA
Houston-Baytown-Sugar Land, TX HMFA
Milwaukee-Waukesha-West Allis, WI MSA
Tacoma, WA HMFA

Remains Eligible for 50^{th} Percentile FMR, to be Reevaluated for FY13 FMRs

Baltimore-Towson, MD MSA
Grand Rapids-Wyoming, MI HMFA
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA
Washington-Arlington-Alexandria, DC-VA-MD HMFA
New Haven-Meriden, CT HMFA
Fort Lauderdale, FL HMFA
West Palm Beach-Boca Raton, FL HMFA

Areas Eligible for 50^{th} Percentile FMR in FY11

Bergen-Passaic, NJ HMFA