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 report's introduction.

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 rents or incomes in 2000 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).

FY13 FMR areas incorporate the most recent (December 2009) OMB update of metropolitan area definitions. There have been no definition changes published by OMB since FY11, so the FY13 area definitions remain the same as the prior year. OMB announced that new metropolitan area definitions will be released in 2013, and the updated area definitions will be incorporated into future FMRs.

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, 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

Prior to FY12, data from Census 2000 provided the foundation for HUD's calculation of FMRs. For most areas, data on rent levels from the ACS were compared to Census 2000 data, and an update factor was calculated to project Census 2000 base rents to an intermediate rent estimate.

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.

In FY12, HUD fully completed a transition to using the ACS as the baseline for calculating FMRs, instead of relying on the decennial census. With the release of the 2005-2009 five-year ACS data, updated data are available for all FMR areas, including areas with populations of less than 20,000, for the first time since the 2000 Decennial Census. The FY13 FMRs are based on the 2006-2010 ACS data.

As it is not possible to easily identify recent movers in the five-year ACS data, base rents are determined using the standard quality two-bedroom gross rent estimates from the five-year ACS data, expressed as a 2010 figure. Then, a recent mover adjustment factor is applied to the base rents. This factor is calculated as the percentage change between the five-year 2006-2010 two-bedroom gross rent, and the one-year 2010 recent mover two-bedroom gross rent. The data represent the smallest geographic area containing the FMR area where the gross rent is statistically reliable.

Local area rent survey results are used as base rents when the survey results indicate rents that are statistically different from the ACS-based rents. In the development of the FY13 FMRs, local area rent surveys conducted in 2012 were used for Hood River County, OR.

The rent estimates determined using ACS data are trended through 2011 using local or regional CPI data.[2] In past years, the FMR estimates were then increased at an annual rate of 3% for 15 months. For FY13, HUD revised its approach. A trend factor is now developed that reflects the annualized change in median gross rents between the one-year 2005 ACS and the one-year 2010 ACS. The result is an effective trend factor of 4.1% that is applied to the FMR estimates to project them forward to April 2013.

While the *Out of Reach* printed book highlights the two-bedroom FMR, the online version of the report includes a broader data set covering the zero- to four-bedroom FMRs. The focus on the two-bedroom FMRs reflects HUD methodology. HUD finds that the two-bedroom rental units are most common and the most reliable to survey, so the two-bedroom units are utilized as the primary FMR estimate. The two-bedroom FMR estimates are then used to calculate and set FMRs for units of other sizes. For FY13, HUD updated bedroom ratio adjustment factors using the 2006-2010 five-year ACS data. In past years, the rent adjustment factors were based upon 2000 Decennial Census data.

[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.
[2] Documentation on the development of the FMR for each county and metropolitan area can be accessed at www.huduser.org/portal/datasets/fmr.html.

Prior editions of *Out of Reach* compared an area's FMR with its Census 2000 base rent. Due to the shift in the methodology, FMRs are no longer comparable between current and prior years. 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 FY13 FMRs. These resources are available at www.huduser.org/datasets/fmr.html.

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.

In FY12, 21 areas were designated as 50th percentile FMRs, and 19 of these areas will maintain their 50th percentile designation for FY13. Two areas are no longer in the 50th percentile program: Grand Rapids, MI and Washington, D.C. One additional area, Richmond, VA, is re-entering the 50th percentile program after graduating from it in FY12.

An asterisk (*) is used to denote the 20 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 (2007-2011), released in December 2012.

Area Median Income (AMI)

On December 7, 2012, HUD published its FY13 AMIs used in this edition of *Out of Reach*. 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.

In 2011, HUD updated the methodology used to calculate family AMIs due to the availability of new five-year ACS data. That year, HUD discontinued use of Census 2000 data in the production of FY11 AMIs.

The five-year (2006-2010) ACS data are used to calculate the FY13, but in areas with valid 2010 one-year ACS data, HUD incorporated the more recent data.

The 2010 AMI estimates are trended from 2010 to the end of 2011 using the Consumer Price Index, and to the midpoint of 2013 using a factor of 1.67%. The trend factor reflects the annualized change in the national median family income as measured by comparing the 2005 one-year ACS and the 2010 one-year ACS.

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 five-year ACS (2007-2011).

A comprehensive list of the counties and towns included in FY13 income limit calculations can be found at www.huduser.org/portal/datasets/il/il13/index.html.

The methodology for calculating median family income estimates and a discussion of HUD's adjustments to subsequent income limits are provided in *FY2013 HUD Income Limits Briefing Material*, available at www.huduser.org/portal/datasets/il/il13/IncomeLimitsBriefingMaterial_FY13.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."[3]

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: 2012*, published by Harvard University's Joint Center for Housing Studies (www.jchs.harvard.edu/sites/jchs.harvard.edu/files/son2012.pdf) includes an analysis of the affordability problems faced by homeowners.

[3] 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, D.C.: National Low Income Housing Coalition.

Prevailing Minimum Wage

The federal minimum wage on January 1, 2013, 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 19 states implemented a state minimum wage higher than $7.25 by January 1, 2013. 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 105 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 72 hours under the higher local minimum wage of $10.55[4] (105 * $7.25 / $10.55). For further guidance, see "Where the Numbers Come From" 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.[5]

The estimated mean renter hourly wage is based on the average weekly earnings of private (non-governmental) employees working in each county.[6] Renter wage information is based on 2011 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 (2007-2011) to arrive at an estimated average renter wage. In only 18 counties nationwide, the median renter income exceeds median household income. Nationally, however, the median renter household earned only an average of 60% of the overall median household income in 2011.[7]

In roughly 12% of counties, the renter wage 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 work week. 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, 2013, 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 projected to year-end 2011 using a national inflation factor. An annual rate of 1.67% is then used to grow renter wages for five quarters to April 1, 2013.[8] This rate is the annualized growth rate in the national median family income between the one-year 2005 and one-year 2010 ACS.

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 December 2012, the average wage earner in the U.S. worked 34.5 hours per week.[9] 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.[10]

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.

[4] City & County of San Francisco Labor Standards Enforcement (2013). www.sfgsa.org/index.aspx
[5] 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.
[6] Renter wage data for 31 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.
[7] NLIHC tabulations of 2011 American Community Survey data.
[8] Following HUD's methodology for developing FY12 AMIs, a 1.67% growth rate was used to trend average renter wages from year-end 2011 to April 1, 2013.
[9] Bureau of Labor Statistics. (2013). *The employment situation: December 2012.* Washington, D.C.: U.S. Department of Labor.
[10] Wardrip, K. & Pelletiere, D. (2007).

For an expanded report on hours and earnings as reported by the Bureau of Labor Statistics, see *The Employment Situation: December 2012* at www.bls.gov/news.release/empsit.nr0.htm.

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 2013, which is $710 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 40 states and the District of Columbia 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 are not readily available. The only four states that do not supplement federal SSI payments are Arizona, North Dakota, Mississippi, 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/pressoffice/factsheets/colafacts2013.htm. 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 www.nlihc.org.

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

Eligibility for 50th Percentile Fair Market Rent

In FY13, Fair Market Rents (FMRs) were set at the 50th percentile rent in 20 FMR areas where voucher tenants were concentrated in high-poverty areas. Compared with the typical 40th percentile rent, this higher voucher payment standard would provide tenants with housing options in less-impoverished areas. Nineteen of these FMR areas were also designated as 50th percentile rent for FY12. Additionally, one area "graduated" from the 50th percentile program in FY12, but re-entered the program in FY13.

Areas Remaining Eligible for FY13 50th Percentile FMR

Austin-Round Rock-San Marcos, TX MSA
Baltimore-Towson, MD MSA
Bergen-Passaic, NJ HMFA
Fort Lauderdale, FL HMFA
Fort Worth-Arlington, TX HMFA
Hartford-West Hartford-East Hartford, CT HMFA
Honolulu, HI MSA
Houston-Baytown-Sugar Land, TX HMFA
Las Vegas-Paradise, NV MSA
Orange County, CA HMFA
North Port-Bradenton-Sarasota, FL MSA
Phoenix-Mesa-Glendale, AZ MSA
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA
Sacramento-Arden-Arcade-Roseville, CA HMFA
Riverside-San Bernardino-Ontario, CA HMFA
Virginia Beach-Norfolk-Newport News, VA-NC
Tucson, AZ MSA
New Haven-Meriden, CT HMFA
West Palm Beach-Boca Raton, FL HMFA

New Area Eligible for 50th Percentile FMR in FY13

Richmond, VA