Supplemental Poverty Measure: An Analysis of the Impact of Excluding Housing Assistance Recipients from Estimates of the Median Rent Index

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Introduction

Drawing on the recommendations of the report of National Academy of Sciences (NAS) Panel on Poverty and Family Assistance (Citro, 1995),[1] and the subsequent extensive research on poverty measurement (Short, Garner, Johnson and Doyle, 1999), an interagency technical working group (ITWG)[2] made a series of suggestions to the Census Bureau and the Bureau of Labor Statistics (BLS) on how to develop a new Supplemental Poverty Measure (SPM). In 2011, the Census Bureau issued the first Supplemental Poverty Measure report with poverty estimates for 2009 and 2010. Annual reports are now released each year in September in conjunction with the release of the official poverty estimates.

The ITWG suggested that the poverty thresholds be adjusted for price differences across geographic areas using the best available data and statistical methodology (ITWG, 2010). The estimates in the Census Bureau reports use American Community Survey (ACS) data to adjust the housing portion of the poverty thresholds for differences in housing costs. This geographic cost index uses median outlays of rent and utilities for two-bedroom rental housing units, henceforth referred to as the median rent index (MRI). See Renwick (2011) for a comparison of the different data sources and indexes related to rent price levels.

One concern with the MRI is that it estimates market rents for units using reports of gross rents in the ACS. However, it is not clear whether housing assistance recipients report the market rent of their unit or their actual out-of-pocket expenditure on rent (Kingkade, 2017a and 2017b). Since the median rent index is conceptually based on market rent, if housing assistance recipients report their out-of-pocket outlay rather than their market rent, inclusion of their records in the construction of the index may downwardly bias the index, particularly for geographies with higher concentrations of government-assisted housing. This paper evaluates the impact of excluding these respondents from the estimation on the MRI index and the subsequent SPM poverty rates.

[1] For a summary of these analyses and recommendations, *see* Renwick (2011).

[2] In 2009 the Office of Management and Budget's Chief Statistician formed the Interagency Technical Working Group (ITWG) on Developing a Supplemental Poverty Measure. That group included representatives from the U.S. Census Bureau, Bureau of Labor Statistics, Economics and Statistics Administration, Council of Economic Advisers, U.S. Department of Health and Human Services, and Office of Management and Budget.

I. The ACS Median Rent Index (MRI)

The MRI is the ratio of the median gross rent of a two bedroom unit with complete kitchen and plumbing facilities in a specific metro area or state to the U.S. median gross rent of the same type of unit (see Renwick 2011). The MRI is applied to the national threshold values, as defined by the Consumer Expenditure Survey (CE), in proportion to average share of housing and utility expenditures for each tenure type. This results in metro and state specific threshold values. The equation below depicts these steps:

$$Threshold_{ijt} = [(HousingShare_t \times MRI_{ij}) + (1 - HousingShare_t)] \times Threshold_t$$

- i = state
- j=specific metro area, other metro or nonmetro area
- t= tenure: owner with mortgage, owner without a mortgage, renter
- MRI = Median Rent Index
- HousingShare = percent of threshold represented by housing and utility expenditures
- Threshold = national average dollar value for income below which households are considered in poverty

Both the ***Threshold*** and the ***HousingShare*** values vary by tenure status, e.g. homeowner with a mortgage, homeowner without a mortgage or renter. For 2015, shelter and utilities made up 49.8 percent of the renter threshold, 50.5 percent of the threshold for owners with a mortgage, and 41.1 percent of the threshold for owners without a mortgage.[3]

The ITWG suggested that the geographic index be developed for specific metropolitan areas rather than using an average index number for all metropolitan areas in a single state due to the wide variation in housing costs across metro areas in some states. While the internal Current Population Survey Annual Social and Economic Supplement (CPS ASEC) files identify the Metropolitan Statistical Area (MSA) for all households on the file, when the Census Bureau releases the public use version of the file, MSAs with populations less than 100,000 are not identified. In addition, there may be some MSAs that are not in sample for the CPS ASEC. MSA codes for portions of MSAs with populations smaller than 100,000 that could be identified by combining two geographic indicators (e.g. state and MSA) are suppressed. The index was developed with these same geographic limitations.

The index used for the SPM groups metro areas that cannot be disclosed into one group in each state. This group is called, "other metro".[4] The remaining geographies, including micropolitan statistical areas, are categorized as "non metro" for each state. When a MSA crosses state lines, the median gross rent for all the portions of the MSA identifiable on the CPS

[3] See <https://www.bls.gov/pir/spm/spm_shares_200515.xlsx>.

[4] The "other metro" group also includes portions of identifiable MSAs which cannot be identified or are not in the CPS ASEC sample. For example, the Wisconsin portion of the Minneapolis-St. Paul-Bloomington, MN-WI MSA is not identified in the CPS ASEC public use data. Therefore, the Wisconsin households in the Minneapolis MSA in the ACS data will be grouped with Wisconsin's "Other Metro" areas. The housing costs for these "other metro" areas are used to create the index to adjust the thresholds for CPS ASEC households in the Wisconsin portion of the Minneapolis MSA.

ASEC are used to calculate a single index value for the MSA. The portions of a multi-state MSA not identifiable on the CPS ASEC are included in the "other metro" for each state. [5]

II. How do Housing Assistance Recipients Respond to ACS Questions?

Monthly rent is a question asked of householders in the ACS.[6] How to interpret responses to this item, in particular, whether they indicate the out-of-pocket expenditure of the household for rent or the total rental cost of the dwelling unit has been a matter of uncertainty in analyses involving ACS respondents who receive housing subsidies. In principle, householders can be expected to know, at least roughly, how much they pay for rent a month, but they may or may not be aware of the market or contract rent for their unit. This question is compounded by the fact that the instructions on whether to include the housing subsidy have historically varied by mode of interview.[7]

Previous research conducted at the Census Bureau indicates that a majority of ACS respondents who are recipients of housing support tend to report rents that are closer to their out-of-pocket expenditures, but finds that this varies by the category of assistance program through which they are supported, as well as respondent characteristics and mode of interview (Kingkade, 2017a). Linking data from the ACS to U.S. Department of Housing and Urban Development (HUD) administrative databases found that most householders in the linked data set were not reporting the market rent for their unit. Two rent concepts are distinguished in the HUD data: Total Tenant Payment (TTP) and Contract Rent. The TTP is the amount paid out by the household receiving housing assistance and generally amounts to 30 percent of the household's income, with adjustments for expenses due to dependents and household members requiring special care, as well as other relevant circumstances. The Contract Rent is the rent received by the property owner or designee thereof and is equal to the TTP plus the HUD subsidy. This research found that ACS householders were reporting amounts closer to their TTP registered in the HUD database rather than their HUD Contract Rent (Kingkade 2017b, p. 7).[8] This reporting could potentially downwardly bias an estimate of MRI for an area.

[5] Currently, all definitions for geographic areas on these lists reflect the June 30, 2013 Office of Management and Budget's (OMB) definitions. These are updated every ten years on the CPS ASEC file.

[6] The ACS is a nationwide survey designed to provide communities with reliable and timely demographic, social, economic, and housing data for the nation, states, congressional districts, counties, places, and other localities every year. It has an annual sample size of 3.5 million addresses across the US and Puerto Rico, including both housing units and group quarters (e.g. nursing homes, prisons). For information on the ACS sample design and other topics, visit www.census.gov/programs-surveys/acs/.

[7] The ACS instruction pamphlet included with the paper questionnaire and the help instructions for Internet Self-Response instruct the respondent to "Report the rent agreed to or contracted for, even if the rent for your home, apartment, or mobile home is unpaid or paid by someone else." In contrast, the ACS help screen instructions for telephone or personal interviews contain the same sentence, followed immediately by "Do not include any subsidy amount which may be paid by a local housing authority or other agency." These discrepancies have been rectified as of 2017 to reflect the amount paid excluding any subsidy.

[8] The median difference between ACS Rent and HUD TTP was 4 dollars, while the median difference of HUD Contract Rent from ACS Rent was -325 dollars.

III. Eliminating Housing Assistance Recipients from the ACS Sample

In order to assess the impact of including these sub-market rents when creating the MRI index, we link ACS and the HUD datasets to flag ACS respondents who are likely recipients of housing assistance.

The linkage of the datasets was conducted using Personal Identification Keys (PIKs), which are intended for use across datasets (Wagner and Layne, 2014). These were assigned to person records in the database excerpts received from HUD by the Census Bureau's Center for Administrative Records Research and Applications (CARRA) through methods of statistical record linkage (Herzog et al., 2007). For the ACS, CARRA produced tables of correspondence ("crosswalks") obtained by relating PIKs to the ACS Continuous Measurement Identification numbers (CMIDs) of households and person numbers, so that individuals in the ACS can be assigned a PIK. We employed these crosswalks to associate PIKs with records on the ACS person level files having the same CMIDs and Person numbers, which uniquely identify individual respondents in the ACS. We then selected those records pertaining to householders, and the selected records were then matched on their CMIDs to the ACS housing sample file.

The results of this linkage were used to flag any ACS record that was likely a recipient of housing assistance in the year of the interview. For the 2010-2014 period, this resulted in the selection of 197,537 of the 10,952,853 unweighted ACS household records (1.8 percent). After weighting, this was approximately 2.6 million or 1.97 percent of the 133 million weighted households. This is smaller than the HUD estimates of total households assisted through either the public housing program or housing choice vouchers. For the 2010-2014 period, HUD reports averaged 3.2 million households.[9, 10]

Using the flags created to identify these records, we constructed a MRI with only the unflagged records. Using only unflagged records, the national median increased from $905 per month to $917 per month.

The MRI covers 385 distinct geographic areas. Table 1 provides the median rents and index values for each of these area. The differences in the medians were statistically significant for 29 of these areas. For the 29 areas with statistically significant differences in median rents, the differences ranged from $7 higher (Chicago-Naperville-Elgin, IL-IN-WI MSA) in the new index to $41 higher New York-Newark-Jersey City, NY-NH-PA MSA). The index used in the production ranged from .60773 to 1.81326. The revised index had a range of .61396 to 1.80589.

[9] Average was calculated by multiplying the number of households by the percent occupancy for each year and each program and then averaging over the five years.
[10] Picture of Subsidized Households, available at <www.huduser.gov/portal/datasets/assthsg.html>

IV. Impact on SPM Rates

Table 2 provides a comparison of SPM rates from the 2016 CPS ASEC using the revised index to SPM rates using the old index.[11] For the total population, the differences in the SPM rates and the number of individuals identified as in poverty were not statistically significant. The change in the index changed poverty status for only 170 unweighted cases. The net change was an increase of only 70 unweighted individuals classified as being in poverty. There were small but statistically significant changes in the poverty rates for several demographic groups: married couples, white individuals, Hispanics (who may be of any race), native born individuals, those living outside MSAs, in the Northeast and the Midwest, as well as those who worked less than full-time full-year.

V. Conclusion

While conceptually it is incorrect to include the rent expenditures reported on the ACS by households with housing assistance to construct the MRI used in the SPM, practically it does not change the estimates. Since creating the flags to identify the ACS respondents who are likely to have received housing assistance is not a trivial task, at this point it does not appear that this conceptual concern has to be addressed in the production process. Research should continue to ensure that this problem continues to be minor in future data.

[11] The estimates in this paper are from the 2016 CPS ASEC. The estimates in this paper (which may be shown in text, figures, and tables) are based on responses from a sample of the population and may differ from actual values because of sampling variability or other factors. As a result, apparent differences between the estimates for two or more groups may not be statistically significant. All comparative statements have undergone statistical testing and are significant at the 90 percent confidence level unless otherwise noted. Standard errors were calculated using replicate weights. Further information about the source and accuracy of the estimates is available www2.census.gov/programs-surveys/cps/techdocs/cpsmar16.pdf .

References

Citro, Constance F., and Robert T. Michael (eds). 1995. Measuring Poverty: A New Approach. Washington, D.C.: National Academy Press.

Fox, Liana. 2017. The Supplemental Poverty Measure: 2016. Current Population Reports P60-261 (REV). Washington, DC: U.S. Census Bureau.

Herzog, Thomas N., Fritz J. Scheuren, and William E. Winkler.2007. Data Quality and Record Linkage Techniques. New York: Springer.

Interagency Technical Working Group. 2010. "Observations from the Interagency Technical Working Group on Developing a Supplemental Poverty Measure." Available at <www.census.gov/hhes/www/poverty/SPM_TWGObservations.

Kingkade, W. Ward. 2017a. "What are Housing Assistance Support Recipients Reporting as Rent? SEHSD Working Paper WP2017-44. Available at https://www.census.gov/library/working-papers/2017/demo/SEHSD-WP2017-44.html.

Kingkade, W. Ward. 2017b. "What Housing Assistance Support Recipients Report as Rent and How They Sort Out, as Indicated by Record Linkage." Paper presented at the Annual Joint Statistical Meetings, Baltimore, July 27-August 3, 2017.

Renwick, Trudi. 2011. "Geographic Adjustments of Supplemental Poverty Measure Thresholds: Using the American Community Survey Five-Year Data on Housing Costs. Paper presented at the July 2011 Western Economic Association, San Diego, CA. Available from Census Bureau working papers.

Short, Kathleen, Thesia Garner, David Johnson and Patricia Doyle. 1999. Experimental Poverty Measures: 1990 to 1997, U.S. Census Bureau, Current Population Reports, Consumer Income P60-205, Washington, D.C.: U.S. Government Printing Office.

Wagner, Deborah and Mary Layne. 2014. "The Person Identification Validation System (PVS): Applying the Center for Administrative Records Research and Applications (CARRA) Record Linkage Software". CARRA Working Paper #2014-01. Washington, DC: US Census Bureau.

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE		Dif	New Index	Production Index
National	917	1	905	0	*	12	1.000	1.000
Alabama Metro	613	4	596	7	*	17	0.668	0.659
Alabama Nonmetro	563	5	550	7		13	0.614	0.608
Alaska Metro	1140	14	1127	8		13	1.243	1.245
Alaska Nonmetro	1073	12	1068	13		5	1.170	1.180
Arizona Metro	809	10	807	11		2	0.882	0.892
Arizona Nonmetro	649	12	644	14		5	0.708	0.712
Arkansas Metro	661	8	652	9		9	0.721	0.720
Arkansas Nonmetro	573	3	565	3	*	8	0.625	0.624
California Metro	825	6	819	3		6	0.900	0.905
California Nonmetro	902	10	891	9		11	0.984	0.985
Colorado Metro	770	-1	765	11		5	0.840	0.845
Colorado Nonmetro	809	13	801	13		8	0.882	0.885
Connecticut Nonmetro	1016	12	1010	12		6	1.108	1.116
Abilene, TX MSA	786	13	787	20		-1	0.857	0.870
Akron, OH MSA	792	8	776	7	**	16	0.864	0.857
Albany, GA MSA	682	12	668	11		14	0.744	0.738
Albany-Schenectady-Troy, NY MSA	960	9	952	6		8	1.047	1.052
Albuquerque, NM MSA	817	5	807	7		10	0.891	0.892
Allentown-Bethlehem-Easton, PA-NJ MSA	978	6	969	6		9	1.067	1.071
Altoona, PA MSA	691	24	687	21		4	0.754	0.759
Amarillo, TX MSA	779	10	778	11		1	0.850	0.860
Ann Arbor, MI MSA	989	9	979	10		10	1.079	1.082
Anniston-Oxford-Jacksonville, AL MSA	613	14	597	16		16	0.668	0.660
Appleton, WI MSA	739	20	733	18		6	0.806	0.810
Asheville, NC MSA	779	11	775	12		4	0.850	0.856
Florida Metro	726	3	726	10		0	0.792	0.802
Florida Nonmetro	677	13	675	11		2	0.738	0.746
Athens-Clarke County, GA MSA	755	7	744	8		11	0.823	0.822
Atlanta-Sandy Springs-Roswell, GA MSA	930	3	925	3		5	1.014	1.022
Atlantic City-Hammonton, NJ MSA	1141	23	1126	15		15	1.244	1.244
Auburn-Opelika, AL MSA	739	14	735	14		4	0.806	0.812
Augusta-Richmond County, GA-SC MSA	725	8	719	8		6	0.791	0.794
Austin-Round Rock, TX MSA	1061	6	1052	7		9	1.157	1.162
Bakersfield, CA MSA	808	5	806	7		2	0.881	0.891
Baltimore-Columbia-Towson, MD MSA	1190	5	1172	7	*	18	1.298	1.295
Bangor, ME MSA	816	11	811	8		5	0.890	0.896
Barnstable Town, MA MSA	1219	21	1218	22		1	1.329	1.346
Baton Rouge, LA MSA	805	9	800	9		5	0.878	0.884
Battle Creek, MI MSA	721	9	718	9		3	0.786	0.793
Georgia Metro	673	9	667	13		6	0.734	0.737
Georgia Nonmetro	602	4	593	4		9	0.656	0.655
Beaumont-Port Arthur, TX MSA	777	8	766	10		11	0.847	0.846
Bellingham, WA MSA	904	9	902	6		2	0.986	0.997
Bend-Redmond, OR MSA	826	13	805	11		21	0.901	0.890
Billings, MT MSA	750	8	748	9		2	0.818	0.827
Binghamton, NY MSA	709	6	710	4		-1	0.773	0.785
Birmingham-Hoover, AL MSA	787	4	774	7		13	0.858	0.855
Blacksburg-Christiansburg-Radford, VA MSA	701	9	697	5		4	0.764	0.770
Bloomington, IL MSA	815	16	804	15		11	0.889	0.888
Bloomington, IN MSA	824	23	814	5		10	0.899	0.899
Boise City, ID MSA	747	5	743	4		4	0.815	0.821
Boston-Cambridge-Newton, MA-NH MSA	1343	6	1314	6	*	29	1.465	1.452

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Boulder, CO MSA	1146	13	1139	11	7	1.250	1.259
Bowling Green, KY MSA	654	6	641	11	13	0.713	0.708
Bremerton-Silverdale, WA MSA	979	13	975	14	4	1.068	1.077
Bridgeport-Stamford-Norwalk, CT MSA	1389	10	1374	12	15	1.515	1.518
Hawaii Nonmetro	1097	38	1088	35	9	1.196	1.202
Brownsville-Harlingen, TX MSA	664	23	649	10	15	0.724	0.717
Buffalo-Cheektowaga-Niagara Falls, NY MSA	737	5	729	3	8	0.804	0.806
Burlington, NC MSA	724	18	723	19	1	0.790	0.799
Burlington-South Burlington, VT MSA	1087	21	1072	14	15	1.185	1.185
California-Lexington Park, MD MSA	1180	56	1163	46	17	1.287	1.285
Canton-Massillon, OH MSA	684	8	677	7	7	0.746	0.748
Cape Coral-Fort Myers, FL MSA	879	9	872	10	7	0.959	0.964
Idaho Metro	639	7	638	7	1	0.697	0.705
Idaho Nonmetro	642	4	641	4	1	0.700	0.708
Carbondale-Marion, IL MSA	678	11	682	8	-4	0.739	0.754
Cedar Rapids, IA MSA	720	10	714	11	6	0.785	0.789
Chambersburg-Waynesboro, PA MSA	818	15	804	16	14	0.892	0.888
Champaign-Urbana, IL MSA	820	10	817	10	3	0.894	0.903
Charleston, WV MSA	705	8	702	7	3	0.769	0.776
Charleston-North Charleston, SC MSA	934	6	925	7	9	1.019	1.022
Charlotte-Concord-Gastonia, NC-SC MSA	812	3	806	5	6	0.885	0.891
Charlottesville, VA MSA	1022	14	1022	8	0	1.115	1.129
Chattanooga, TN-GA MSA	733	8	724	8	9	0.799	0.800
Chicago-Naperville-Elgin, IL-IN-WI MSA	1003	3	996	3	* 7	1.094	1.101
Illinois Metro	667	16	650	23	17	0.727	0.718
Illinois Nonmetro	627	4	623	5	4	0.684	0.688
Chico, CA MSA	892	11	883	3	9	0.973	0.976
Cincinnati, OH-KY-IN MSA	791	4	777	3	* 14	0.863	0.859
Clarksville, TN-KY MSA	748	10	741	9	7	0.816	0.819
Cleveland, TN MSA	689	12	692	20	-3	0.751	0.765
Cleveland-Elyria, OH MSA	781	4	771	3	* 10	0.852	0.852
Coeur d'Alene, ID MSA	748	5	746	0	2	0.816	0.824
College Station-Bryan, TX MSA	831	5	832	7	-1	0.906	0.919
Colorado Springs, CO MSA	866	8	862	7	4	0.944	0.952
Columbia, MO MSA	742	3	739	6	3	0.809	0.817
Columbia, SC MSA	802	9	793	9	9	0.875	0.876
Columbus, GA-AL MSA	764	9	752	7	12	0.833	0.831
Indiana Metro	704	15	691	8	13	0.768	0.764
Indiana Nonmetro	646	4	641	5	5	0.704	0.708
Columbus, OH MSA	835	4	829	3	6	0.911	0.916
Corpus Christi, TX MSA	893	8	879	5	14	0.974	0.971
Crestview-Fort Walton Beach-Destin, FL MSA	918	14	905	16	13	1.001	1.000
Iowa Metro	742	8	735	5	7	0.809	0.812
Iowa Nonmetro	606	4	604	4	2	0.661	0.667
Dallas-Fort Worth-Arlington, TX MSA	948	3	940	4	* 8	1.034	1.039
Daphne-Fairhope-Foley, AL MSA	799	16	791	10	8	0.871	0.874
Davenport-Moline-Rock Island, IA-IL MSA	715	7	714	8	1	0.780	0.789
Dayton, OH MSA	757	7	746	6	11	0.826	0.824
Decatur, AL MSA	616	14	607	13	9	0.672	0.671
Decatur, IL MSA	686	9	687	2	-1	0.748	0.759
Deltona-Daytona Beach-Ormond Beach, FL MSA	900	7	895	8	5	0.981	0.989
Denver-Aurora-Lakewood, CO MSA	1029	5	1017	4	* 12	1.122	1.124

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Des Moines-West Des Moines, IA MSA	810	10	805	7	5	0.883	0.890
Detroit-Warren-Dearborn, MI MSA	875	3	866	3	* 9	0.954	0.957
Kansas Metro	814	14	811	9	3	0.888	0.896
Kansas Nonmetro	641	3	637	4	4	0.699	0.704
Dover, DE MSA	900	30	885	29	15	0.981	0.978
Duluth, MN-WI MSA	758	10	740	10	18	0.827	0.818
Durham-Chapel Hill, NC MSA	872	5	869	6	3	0.951	0.960
East Stroudsburg, PA MSA	981	21	968	14	13	1.070	1.070
Eau Claire, WI MSA	735	2	734	3	1	0.802	0.811
El Centro, CA MSA	756	8	748	3	8	0.824	0.827
Kentucky Metro	653	10	652	11	1	0.712	0.720
Kentucky Nonmetro	574	4	566	3	8	0.626	0.625
Elkhart-Goshen, IN MSA	743	10	734	3	9	0.810	0.811
El Paso, TX MSA	734	7	723	9	11	0.800	0.799
Erie, PA MSA	712	9	703	10	9	0.776	0.777
Eugene, OR MSA	838	11	832	6	6	0.914	0.919
Evansville, IN-KY MSA	772	10	763	9	9	0.842	0.843
Louisiana Metro	740	6	729	7	11	0.807	0.806
Louisiana Nonmetro	576	9	567	8	9	0.628	0.627
Fargo, ND-MN MSA	713	6	709	6	4	0.778	0.783
Farmington, NM MSA	747	23	737	23	10	0.815	0.814
Fayetteville, NC MSA	774	7	772	7	2	0.844	0.853
Fayetteville-Springdale-Rogers, AR-MO MSA	696	6	691	6	5	0.759	0.764
Flint, MI MSA	729	5	722	8	7	0.795	0.798
Florence, SC MSA	649	9	642	3	7	0.708	0.709
Florence-Muscle Shoals, AL MSA	610	17	597	7	13	0.665	0.660
Fort Collins, CO MSA	923	8	916	9	7	1.007	1.012
Fort Smith, AR-OK MSA	625	9	621	11	4	0.682	0.686
Maine Nonmetro	710	4	707	8	3	0.774	0.781
Fort Wayne, IN MSA	682	5	682	7	0	0.744	0.754
Fresno, CA MSA	857	5	845	7	12	0.935	0.934
Gainesville, FL MSA	872	7	868	5	4	0.951	0.959
Gainesville, GA MSA	796	10	792	10	4	0.868	0.875
Maryland Metro	671	29	626	22	45	0.732	0.692
Maryland Nonmetro	862	20	841	23	21	0.940	0.929
Glens Falls, NY MSA	851	10	846	12	5	0.928	0.935
Goldsboro, NC MSA	664	13	649	17	15	0.724	0.717
Grand Rapids-Wyoming, MI MSA	761	4	758	5	3	0.830	0.838
Greeley, CO MSA	752	12	750	10	2	0.820	0.829
Green Bay, WI MSA	736	12	723	14	13	0.803	0.799
Greensboro-High Point, NC MSA	726	4	718	5	8	0.792	0.793
Greenville, NC MSA	739	15	732	17	7	0.806	0.809
Greenville-Anderson-Mauldin, SC MSA	709	5	705	5	4	0.773	0.779
Massachusetts Metro	802	18	789	23	13	0.875	0.872
Massachusetts Nonmetro	988	33	978	21	10	1.077	1.081
Gulfport-Biloxi-Pascagoula, MS MSA	760	13	753	8	7	0.829	0.832
Hagerstown-Martinsburg, MD-WV MSA	845	18	828	18	17	0.921	0.915
Hanford-Corcoran, CA MSA	776	27	763	19	13	0.846	0.843
Harrisburg-Carlisle, PA MSA	885	7	871	8	14	0.965	0.962
Harrisonburg, VA MSA	783	8	780	10	3	0.854	0.862
Hartford-West Hartford-East Hartford, CT MSA	1082	4	1069	8	13	1.180	1.181
Hickory-Lenoir-Morganton, NC MSA	625	10	618	8	7	0.682	0.683

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Hilton Head Island-Bluffton-Beaufort, SC MSA	929	16	920	18	9	1.013	1.017
Michigan Metro	724	12	713	12	11	0.790	0.788
Michigan Nonmetro	674	4	669	4	5	0.735	0.739
Houston-The Woodlands-Sugar Land, TX MSA	917	3	914	2	3	1.000	1.010
Huntington-Ashland, WV-KY-OH MSA	640	12	626	8	14	0.698	0.692
Huntsville, AL MSA	711	7	706	9	5	0.775	0.780
Idaho Falls, ID MSA	666	11	660	19	6	0.726	0.729
Indianapolis-Carmel-Anderson, IN MSA	805	5	802	3	3	0.878	0.886
Iowa City, IA MSA	850	16	848	16	2	0.927	0.937
Minnesota Metro	785	9	774	14	11	0.856	0.855
Minnesota Nonmetro	680	5	674	5	6	0.742	0.745
Jackson, MI MSA	753	23	741	13	12	0.821	0.819
Jackson, MS MSA	796	11	786	9	10	0.868	0.869
Jacksonville, FL MSA	940	6	933	8	7	1.025	1.031
Jacksonville, NC MSA	793	17	792	20	1	0.865	0.875
Janesville-Beloit, WI MSA	747	18	748	16	-1	0.815	0.827
Johnson City, TN MSA	657	11	651	14	6	0.716	0.719
Johnstown, PA MSA	583	10	581	8	2	0.636	0.642
Joplin, MO MSA	658	12	651	10	7	0.718	0.719
Kahului-Wailuku-Lahaina, HI MSA	1297	27	1301	23	-4	1.414	1.438
Mississippi Metro	719	34	712	24	7	0.784	0.787
Mississippi Nonmetro	608	5	595	4	* 13	0.663	0.657
Kalamazoo-Portage, MI MSA	747	9	738	11	9	0.815	0.815
Kankakee, IL MSA	803	13	800	16	3	0.876	0.884
Kansas City, MO-KS MSA	846	4	839	3	7	0.923	0.927
Kennewick-Richland, WA MSA	799	9	794	10	5	0.871	0.877
Killeen-Temple, TX MSA	774	11	769	6	5	0.844	0.850
Kingsport-Bristol-Bristol, TN-VA MSA	610	6	600	10	10	0.665	0.663
Kingston, NY MSA	1081	21	1074	18	7	1.179	1.187
Knoxville, TN MSA	757	5	741	9	16	0.826	0.819
Missouri Metro	654	8	645	5	9	0.713	0.713
Missouri Nonmetro	603	4	598	3	5	0.658	0.661
La Crosse-Onalaska, WI-MN MSA	752	11	749	5	3	0.820	0.828
Lafayette, LA MSA	717	18	710	15	7	0.782	0.785
Lafayette-West Lafayette, IN MSA	788	8	785	6	3	0.859	0.867
Lake Charles, LA MSA	752	15	723	15	29	0.820	0.799
Lakeland-Winter Haven, FL MSA	825	14	819	11	6	0.900	0.905
Lancaster, PA MSA	916	8	907	10	9	0.999	1.002
Lansing-East Lansing, MI MSA	810	8	805	9	5	0.883	0.890
Laredo, TX MSA	742	6	742	9	0	0.809	0.820
Las Cruces, NM MSA	648	6	659	8	-11	0.707	0.728
Las Vegas-Henderson-Paradise, NV MSA	939	3	936	4	3	1.024	1.034
Lawrence, KS MSA	831	9	819	8	12	0.906	0.905
Montana Metro	735	17	727	18	8	0.802	0.803
Montana Nonmetro	680	7	672	8	8	0.742	0.743
Lawton, OK MSA	732	11	728	18	4	0.798	0.804
Lewiston-Auburn, ME MSA	755	12	751	8	4	0.823	0.830
Lexington-Fayette, KY MSA	751	3	743	7	8	0.819	0.821
Little Rock-North Little Rock-Conway, AR MSA	759	7	752	6	7	0.828	0.831
Longview, TX MSA	737	13	729	13	8	0.804	0.806
Nebraska Metro	725	5	719	7	6	0.791	0.794
Nebraska Nonmetro	625	4	623	3	2	0.682	0.688

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Los Angeles-Long Beach-Anaheim, CA MSA	1406	3	1396	2	* 10	1.533	1.543
Louisville/Jefferson County, KY-IN MSA	748	4	742	3	6	0.816	0.820
Lubbock, TX MSA	776	9	775	10	1	0.846	0.856
Lynchburg, VA MSA	717	8	712	8	5	0.782	0.787
Macon, GA MSA	735	8	718	18	17	0.802	0.793
Madera, CA MSA	811	9	813	16	-2	0.884	0.898
Madison, WI MSA	914	5	913	4	1	0.997	1.009
Manchester-Nashua, NH MSA	1124	6	1119	7	5	1.226	1.236
Nevada Metro	825	36	817	30	8	0.900	0.903
Nevada Nonmetro	793	12	794	8	-1	0.865	0.877
McAllen-Edinburg-Mission, TX MSA	671	7	667	4	4	0.732	0.737
Medford, OR MSA	836	6	830	8	6	0.912	0.917
Memphis, TN-MS-AR MSA	813	5	807	6	6	0.887	0.892
Merced, CA MSA	752	11	749	10	3	0.820	0.828
New Hampshire Nonmetro	976	11	972	14	4	1.064	1.074
Miami-Fort Lauderdale-West Palm Beach, FL MSA	1161	3	1155	3	6	1.266	1.276
Michigan City-La Porte, IN MSA	718	9	716	15	2	0.783	0.791
Midland, TX MSA	1084	30	1079	22	5	1.182	1.192
Milwaukee-Waukesha-West Allis, WI MSA	849	2	846	3	3	0.926	0.935
Minneapolis-St. Paul-Bloomington, MN-WI MSA	996	4	985	3	* 11	1.086	1.088
Mobile, AL MSA	773	8	751	10	* 22	0.843	0.830
Modesto, CA MSA	911	9	905	7	6	0.993	1.000
Monroe, LA MSA	696	16	673	10	23	0.759	0.744
Monroe, MI MSA	806	18	803	16	3	0.879	0.887
Montgomery, AL MSA	780	15	775	13	5	0.851	0.856
Morgantown, WV MSA	736	10	732	11	4	0.803	0.809
Mount Vernon-Anacortes, WA MSA	916	14	929	9	-13	0.999	1.027
Muskegon, MI MSA	700	14	690	9	10	0.763	0.762
Myrtle Beach-Conway-North Myrtle Beach, SC-NC M	791	9	785	10	6	0.863	0.867
Napa, CA MSA	1347	35	1335	34	12	1.469	1.475
Naples-Immokalee-Marco Island, FL MSA	990	10	987	9	3	1.080	1.091
Nashville-Davidson--Murfreesboro--Franklin, TN MS/	855	5	844	3	* 11	0.932	0.933
New Mexico Nonmetro	670	10	656	11	14	0.731	0.725
New Haven-Milford, CT MSA	1117	8	1105	6	12	1.218	1.221
New Orleans-Metairie, LA MSA	939	6	930	6	9	1.024	1.028
New York-Newark-Jersey City, NY-NJ-PA MSA	1341	2	1300	2	* 41	1.462	1.436
Niles-Benton Harbor, MI MSA	702	16	695	18	7	0.766	0.768
North Port-Sarasota-Bradenton, FL MSA	958	8	952	9	6	1.045	1.052
Norwich-New London, CT MSA	1048	14	1043	14	5	1.143	1.152
New York Metro	897	15	890	23	7	0.978	0.983
New York Nonmetro	704	4	700	2	4	0.768	0.773
Ocala, FL MSA	760	11	759	10	1	0.829	0.839
Ocean City, NJ MSA	1022	15	1010	13	12	1.115	1.116
Odessa, TX MSA	934	29	906	35	28	1.019	1.001
Ogden-Clearfield, UT MSA	780	7	775	8	5	0.851	0.856
Oklahoma City, OK MSA	766	5	758	5	8	0.835	0.838
Olympia-Tumwater, WA MSA	982	15	983	12	-1	1.071	1.086
Omaha-Council Bluffs, NE-IA MSA	831	5	827	4	4	0.906	0.914
Orlando-Kissimmee-Sanford, FL MSA	985	5	982	4	3	1.074	1.085
Oshkosh-Neenah, WI MSA	684	10	675	9	9	0.746	0.746
North Carolina Metro	805	13	795	7	10	0.878	0.878
North Carolina Nonmetro	625	3	616	4	* 9	0.682	0.681

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE		Dif	New Index	Production Index
National	917	1	905	0	*	12	1.000	1.000
Oxnard-Thousand Oaks-Ventura, CA MSA	1475	8	1454	11		21	1.609	1.607
Palm Bay-Melbourne-Titusville, FL MSA	861	6	857	6		4	0.939	0.947
Panama City, FL MSA	884	10	875	11		9	0.964	0.967
Pensacola-Ferry Pass-Brent, FL MSA	835	10	830	10		5	0.911	0.917
Peoria, IL MSA	729	6	725	7		4	0.795	0.801
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MS	1076	3	1067	4	*	9	1.173	1.179
North Dakota Metro	751	14	735	8		16	0.819	0.812
North Dakota Nonmetro	630	11	624	10		6	0.687	0.690
Phoenix-Mesa-Scottsdale, AZ MSA	895	3	892	4		3	0.976	0.986
Pine Bluff, AR MSA	637	7	629	13		8	0.695	0.695
Pittsburgh, PA MSA	774	3	762	3	*	12	0.844	0.842
Portland-South Portland, ME MSA	991	7	980	8		11	1.081	1.083
Portland-Vancouver-Hillsboro, OR-WA MSA	942	3	936	4		6	1.027	1.034
Port St. Lucie, FL MSA	913	12	903	14		10	0.996	0.998
Ohio Metro	620	4	617	6		3	0.676	0.682
Ohio Nonmetro	647	3	639	3	*	8	0.706	0.706
Prescott, AZ MSA	802	19	797	15		5	0.875	0.881
Providence-Warwick, RI-MA MSA	950	4	930	6	*	20	1.036	1.028
Provo-Orem, UT MSA	771	6	763	6		8	0.841	0.843
Pueblo, CO MSA	731	18	705	8		26	0.797	0.779
Punta Gorda, FL MSA	825	23	826	20		-1	0.900	0.913
Racine, WI MSA	780	18	778	13		2	0.851	0.860
Raleigh, NC MSA	903	4	898	6		5	0.985	0.992
Reading, PA MSA	902	7	890	8		12	0.984	0.983
Redding, CA MSA	872	18	865	19		7	0.951	0.956
Reno, NV MSA	908	10	903	11		5	0.990	0.998
Oklahoma Nonmetro	618	4	613	4		5	0.674	0.677
Richmond, VA MSA	950	4	939	6		11	1.036	1.038
Riverside-San Bernardino-Ontario, CA MSA	1054	4	1051	3		3	1.149	1.161
Roanoke, VA MSA	766	12	753	14		13	0.835	0.832
Rochester, NY MSA	863	5	851	5		12	0.941	0.940
Rockford, IL MSA	764	9	757	7		7	0.833	0.836
Sacramento--Roseville--Arden-Arcade, CA MSA	1023	4	1015	3		8	1.116	1.122
Saginaw, MI MSA	693	7	701	5		-8	0.756	0.775
Oregon Metro	798	8	790	7		8	0.870	0.873
Oregon Nonmetro	708	4	706	6		2	0.772	0.780
St. Cloud, MN MSA	726	18	715	14		11	0.792	0.790
St. George, UT MSA	761	2	749	9		12	0.830	0.828
St. Louis, MO-IL MSA	836	4	830	3		6	0.912	0.917
Salem, OR MSA	773	8	765	6		8	0.843	0.845
Salinas, CA MSA	1211	13	1200	14		11	1.321	1.326
Salisbury, MD-DE MSA	886	15	879	17		7	0.966	0.971
Salt Lake City, UT MSA	900	5	898	4		2	0.981	0.992
San Antonio-New Braunfels, TX MSA	889	4	880	3		9	0.969	0.972
San Diego-Carlsbad, CA MSA	1356	5	1341	4	*	15	1.479	1.482
San Francisco-Oakland-Hayward, CA MSA	1555	6	1526	5	*	29	1.696	1.686
San Jose-Sunnyvale-Santa Clara, CA MSA	1656	7	1641	8		15	1.806	1.813
Pennsylvania Metro	815	7	813	7		2	0.889	0.898
Pennsylvania Nonmetro	635	3	626	3	*	9	0.692	0.692
San Luis Obispo-Paso Robles-Arroyo Grande, CA MSA	1201	12	1197	11		4	1.310	1.323
Santa Cruz-Watsonville, CA MSA	1539	16	1504	21		35	1.678	1.662
Santa Fe, NM MSA	977	12	970	16		7	1.065	1.072

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Santa Maria-Santa Barbara, CA MSA	1393	29	1363	30	30	1.519	1.506
Santa Rosa, CA MSA	1305	15	1294	12	11	1.423	1.430
Savannah, GA MSA	892	13	886	12	6	0.973	0.979
Scranton--Wilkes-Barre--Hazleton, PA MSA	719	9	704	5	15	0.784	0.778
Seattle-Tacoma-Bellevue, WA MSA	1133	4	1124	4	9	1.236	1.242
Sebastian-Vero Beach, FL MSA	819	26	817	14	2	0.893	0.903
Sherman-Denison, TX MSA	779	14	768	15	11	0.850	0.849
Shreveport-Bossier City, LA MSA	774	12	752	10	22	0.844	0.831
Sioux Falls, SD MSA	731	8	727	11	4	0.797	0.803
South Bend-Mishawaka, IN-MI MSA	746	8	741	8	5	0.814	0.819
Spartanburg, SC MSA	674	7	665	8	9	0.735	0.735
Spokane-Spokane Valley, WA MSA	778	4	777	3	1	0.848	0.859
Springfield, IL MSA	755	10	750	11	5	0.823	0.829
Springfield, MA MSA	921	7	900	7	* 21	1.004	0.994
Springfield, MO MSA	671	6	668	2	3	0.732	0.738
Springfield, OH MSA	675	7	676	10	-1	0.736	0.747
Stockton-Lodi, CA MSA	946	6	941	8	5	1.032	1.040
South Carolina Metro	685	20	667	9	18	0.747	0.737
South Carolina Nonmetro	608	7	598	5	10	0.663	0.661
Syracuse, NY MSA	799	5	795	6	4	0.871	0.878
Tallahassee, FL MSA	897	11	881	12	16	0.978	0.973
Tampa-St. Petersburg-Clearwater, FL MSA	964	3	959	3	5	1.051	1.060
Terre Haute, IN MSA	690	9	692	9	-2	0.752	0.765
Toledo, OH MSA	699	8	688	5	11	0.762	0.760
Topeka, KS MSA	732	9	727	10	5	0.798	0.803
Trenton, NJ MSA	1213	13	1205	21	8	1.323	1.331
South Dakota Metro	793	18	779	13	14	0.865	0.861
South Dakota Nonmetro	597	6	595	6	2	0.651	0.657
Tucson, AZ MSA	839	6	832	7	7	0.915	0.919
Tulsa, OK MSA	767	5	757	5	10	0.836	0.836
Tuscaloosa, AL MSA	761	18	745	12	16	0.830	0.823
Tyler, TX MSA	840	13	838	14	2	0.916	0.926
Urban Honolulu, HI MSA	1575	13	1550	13	25	1.718	1.713
Utica-Rome, NY MSA	722	12	719	8	3	0.787	0.794
Valdosta, GA MSA	680	17	680	15	0	0.742	0.751
Vallejo-Fairfield, CA MSA	1182	16	1165	10	17	1.289	1.287
Tennessee Metro	643	12	637	9	6	0.701	0.704
Tennessee Nonmetro	580	3	572	4	8	0.632	0.632
Victoria, TX MSA	799	22	804	13	-5	0.871	0.888
Vineland-Bridgeton, NJ MSA	1045	11	1043	13	2	1.140	1.152
Virginia Beach-Norfolk-Newport News, VA-NC MSA	1036	5	1020	5	* 16	1.130	1.127
Visalia-Porterville, CA MSA	758	10	753	12	5	0.827	0.832
Waco, TX MSA	758	9	749	5	9	0.827	0.828
Warner Robins, GA MSA	764	24	754	17	10	0.833	0.833
Washington-Arlington-Alexandria, DC-VA-MD-WV M	1474	4	1459	6	* 15	1.607	1.612
Waterloo-Cedar Falls, IA MSA	693	4	689	9	4	0.756	0.761
Texas Metro	749	7	746	6	3	0.817	0.824
Texas Nonmetro	667	5	655	4	* 12	0.727	0.724
Watertown-Fort Drum, NY MSA	999	34	977	31	22	1.089	1.080
Wausau, WI MSA	725	10	725	7	0	0.791	0.801
Wichita, KS MSA	732	6	733	5	-1	0.798	0.810
Wichita Falls, TX MSA	726	11	718	7	8	0.792	0.793

Table 1 - Comparisons of Median Gross Rent by Specific Geographic Areas

	New Median Gross Rent	SE	Production Median Gross Rent	SE	Dif	New Index	Production Index
National	917	1	905	0	* 12	1.000	1.000
Williamsport, PA MSA	727	12	725	23	2	0.793	0.801
Utah Metro	643	10	638	8	5	0.701	0.705
Utah Nonmetro	692	16	690	18	2	0.755	0.762
Winchester, VA-WV MSA	840	15	832	17	8	0.916	0.919
Winston-Salem, NC MSA	676	5	673	5	3	0.737	0.744
Worcester, MA-CT MSA	974	4	967	8	7	1.062	1.069
Yakima, WA MSA	759	9	757	8	2	0.828	0.836
York-Hanover, PA MSA	863	12	858	8	5	0.941	0.948
Youngstown-Warren-Boardman, OH-PA MSA	639	6	631	8	8	0.697	0.697
Yuma, AZ MSA	764	21	763	17	1	0.833	0.843
Vermont Nonmetro	885	13	876	13	9	0.965	0.968
Virginia Metro	769	15	760	21	9	0.839	0.840
Virginia Nonmetro	616	6	610	6	6	0.672	0.674
Washington Metro	740	6	739	6	1	0.807	0.817
Washington Nonmetro	768	7	763	7	5	0.838	0.843
West Virginia Metro	601	14	596	8	5	0.655	0.659
West Virginia Nonmetro	579	7	575	6	4	0.631	0.635
Wisconsin Metro	692	3	692	5	0	0.755	0.765
Wisconsin Nonmetro	696	4	693	3	3	0.759	0.766
Wyoming Metro	773	17	768	13	5	0.843	0.849
Wyoming Nonmetro	731	13	731	7	0	0.797	0.808

* Difference statistically different from zero at the 90 percent confidence interval.

** Difference statistically different from zero at the 90 percent confidence interval prior to noise infusion.

Source: U.S. Census calculations using 2014 American Community Survey 5-year file as matched to U.S. Housing and Urban Development administrative records. In order to comply with Census Bureau disclosure avoidance rules, these estimates have been infused with noise and rounded to the nearest dollar.

Table 2. Comparing 2015 SPM Rates Using Revised MRI and the Original MRI

		SPM Rate			
		Revised MRI	**Original MRI**		**Difference**
All People		14.16	14.18		0.02
Sex	Male	13.55	13.58		0.03
	Female	14.75	14.76		0.02
Age	Under 18 years	15.79	15.84		0.05
	18 to 64 years	13.68	13.70		0.02
	65 years and older	13.62	13.62		0.01
Type of Unit	Married Couple	8.80	8.83	#	0.03
	Female householder	25.54	25.54		-0.01
	Male householder	20.78	20.80		0.02
	New SPM Unit	15.60	15.60		0.00
Race and Hisp Origin	White	12.46	12.49	*	0.03
	White, not Hispanic	10.01	10.01		0.00
	Black	22.53	22.49		-0.04
	Asian	15.91	15.91		0.00
	Hispanic (any race)	21.96	22.07	*	0.11
Nativity	Native born	13.02	13.05	*	0.03
	Foreign born	21.45	21.44		-0.01
	Naturalized citizen	16.47	16.46		-0.01
	Not a citizen	25.81	25.80		-0.01
Tenure	Owner	9.10	9.12		0.02
	Owner with mortgage	7.46	7.47		0.02
	Owner no mortgage	12.64	12.66		0.02
	Renter	23.71	23.73		0.02
Residence	Inside metropolitan statistical areas	14.35	14.37		0.02
	Inside principal city	17.56	17.59		0.03
	Outside principal city	12.39	12.41		0.01
	Outside metropolitan statistical areas	13.02	13.05	*	0.03
Region	Northeast	14.22	14.12	*	-0.10
	Midwest	10.68	10.72	*	0.05
	South	15.32	15.36		0.05
	West	15.37	15.42		0.05
Health Ins Coverage	Private insurance	8.54	8.55		0.01
	Public insurance	25.51	25.55		0.04
	Not insured	26.10	26.16		0.05
Work Experience	Total 18 to 64 years	13.68	13.70		0.02
	All workers	8.23	8.25		0.02
	Worked full-time, year-round	4.70	4.70		0.01
	Less than full-time, year-round	16.63	16.68	*	0.06
	Did not work at least 1 week	31.08	31.08		0.00
Disability Status	With a disability	26.23	26.20		-0.03
	With no disability	12.65	12.67		0.02

* Statistically different from zero at the 90 percent confidence level.

Source: U.S. Census Bureau, Current Population Survey, 2016 Annual Social and Economic Supplement