Incorporating Amenities into Geographic Adjustments of the Supplemental Poverty Measure Thresholds[1]

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Official poverty statistics are used in the United States to evaluate economic well-being at the national level, and to distribute federal anti-poverty funds across states and urban areas. However, these statistics are based on poverty thresholds that do not take into account geographic differences in price levels. To provide an alternative estimate, beginning in 2011, the U.S. Census Bureau has issued a supplemental poverty measure (SPM). Unlike the official measure, the SPM adjusts the poverty thresholds for geographic differences in the cost of housing.[2] This paper examines the impact of a change in the methodology for calculating geographic adjustments for the Supplemental Poverty Measure (SPM) in order to take into account the value of amenities.

While most would agree that poverty thresholds in New York City should be higher than poverty thresholds in rural Alabama, there is much less consensus on the issue of how these differences in the cost of living should be reflected in the thresholds for the Supplemental Poverty Measure (SPM). Currently, the SPM thresholds produced by the Bureau of Labor Statistics are adjusted by the Census Bureau for differences in the cost of rent and utilities using an index developed using data from the American Community Survey (ACS). This index is applied to the shelter portion of the threshold and does not take into consideration differences in amenities across jurisdictions. This paper suggests an approach that would take into account these amenities.

1. Introduction

Each year, the Census Bureau estimates two sets of poverty measures. The official measure, developed in the 1960s, is based on a family's cash income relative to national thresholds below which a family is considered to be in poverty. Since 2011, the Census Bureau has also issued a supplemental poverty measure (SPM). The SPM differs in many ways from the official measure, including adjusting the housing portion of the poverty thresholds for geographic differences in housing costs.[3] These differences are measured using American Community Survey (ACS) data on median rent and utilities for two-bedroom housing units, and the resulting geographic cost index is referred to as the median rent index (MRI).

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[2] National thresholds are produced by the Bureau of Labor Statistics, available at www.bls.gov/pir/spmhome.htm.
[3] For a full description of the methodological differences, see Fox (2018).

One shortcoming of this index is that it does not take into account the value of amenities.[4] Amenities include non-market goods such as sunny weather, lower crime, better schools or cultural appeal. If the objective of adjusting the poverty thresholds is to ensure that families in different locations are able to purchase the same basic bundle of necessities – food, shelter, clothing and utilities – then only adjusting for difference in prices is appropriate. However, if the objective is to measure the income necessary to achieve equivalent levels of "well-being" in different locations, adjusting for prices will not take into consideration the role of amenities. Although rents are higher in New York City than in rural Alabama, families in New York City may choose to substitute housing consumption for the consumption of nonmarket amenities. In simple terms, the family in New York City may achieve an equal level of "well-being" with a one-bedroom apartment as the family of the same size in rural Alabama with the two-bedroom apartment. Adjusting the thresholds for differences in prices will overestimate the thresholds in places with higher than average amenities and underestimate them where amenities are below average.

Although many economists would agree that amenities should be incorporated in the construction of this index, there is no commonly accepted methodology for taking these amenities into account. In 2011, the University of Kentucky Center for Poverty Research (UKCPR), in conjunction with the Brookings Institution and the Census Bureau, sponsored a research forum entitled Cost of Living and the Supplemental Poverty Measure at the Brookings Institution. Among the more than 60 attendees were representatives from Department of Health and Human Services, Agency for Healthcare Research and Quality, the Bureau of Economic Analysis, Bureau of Labor Statistics, Census Bureau, Congressional Research Service, Government Accountability Office, National Academy of Science, Office of Management and Budget, academia, and various think tanks.[5] There were four recommendations that came out of this forum. These were:
- Some form of adjustment to the SPM thresholds for geographic differences in cost of living is preferable to no adjustment.
- The current method of adjusting the SPM threshold for housing price differences across regions but not other components of the consumption bundle is reasonable until better data become available.
- The adjustment for geographic housing price differences should be based on quality-adjusted rental costs.
- New sponsored research to inform how and for whom to adjust thresholds for geographic differences in cost of living should be a high priority.

In the final recommendation, the forum discussed the concept of "partial" adjustment of the thresholds. As described most thoroughly in a working paper by Barry Hirsch, "Full adjustment of poverty thresholds with respect to an area price index would be highly problematic if the wage-price elasticity with respect to the designated index were substantially below unity. Wages

for workers of a given skill do not adjust fully to area price differences owing to amenities (which raise prices and lower real wages) and because consumers have the ability to vary their consumption bundles in response to differences in relative prices." Hirsch discusses various estimates of wage-price elasticities that ranged from .555 for individuals with less than a high school education to .999 for individuals at the 90th percentile of the wage distribution. (Hirsch 2011). Some preliminary explorations applying his method using our SPM adjustment mechanism result in a similar range of elasticity estimates.

This paper represents a first attempt to account for amenities by arbitrarily reducing the "weight" of the median rent index by half before estimating SPM rates. The paper then examines the poverty rates for major demographic groups with this amenity adjustment focusing on the individuals for whom poverty status changes with the alternative weighting. The paper also examines state poverty rates using three years of Current Population Survey Annual Social and Economic Supplement (CPS ASEC) data.

2. 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 the national average shares of housing and utility expenditures from total expenditures. The result is a metro area- and state-specific threshold value, and the poverty rate is given by the estimated population below this threshold.

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

where ij refer to the geographic unit (state and metro area, respectively), t refers to housing tenure (owner with mortgage, owner without a mortgage, renter), and the housing share ranges from 40 to 50 percent of total expenditures, depending on tenure status. The thresholds are the dollar values for income below which households are considered in poverty. The MRI was estimated using the 2015 five-year file from the ACS. Separate medians are estimated for each of 260 metropolitan statistical areas large enough to be identified on the public-use version of the CPS ASEC file. For each state, a median is estimated for all nonmetropolitan areas (47) and for a combination of all smaller metropolitan areas within a state (35). This results in 342 adjustment factors. For details, see Renwick (2011).

3. Impact of the using the ACS Median Rent Index

In order to isolate the impact of the geographic adjustments on SPM rates, this paper compares SPM rates without any geographic adjustments (NGA) to SPM rates with the

geographic adjustments. In 2017, the geographic adjustment of the thresholds using the MRI changes the poverty status for 2.7 percent of the population (8.8 million people).[6]

Table 1 summarizes the percent of the population that experiences a change in poverty status when geographic adjustments are applied to the SPM thresholds. The first three columns of Table 1 focus on the current adjustment. As shown in Table 1, the impact of the MRI adjustment varies across these groups from 5.5 percent for individuals with less than a high school education to .97 percent for those with at least a college education.[7]

Looking at place and region of residence, the percentages with changes were greatest for those living outside metropolitan statistical areas (4.1 percent) and those living in the West (3.6 percent) and Northeast (3.3 percent).[8]

Changes in poverty status include movements into poverty as well as movements out of poverty. Nationally, of the 8.8 million with a change in status, 5.0 million moved into poverty while 3.8 million moved out of poverty for a net change of 1.2 million (0.4 percentage points).

Table 2 looks at the net changes in poverty for each of the groups included in Table 1. The groups with the highest net change were those living outside metropolitan statistical areas (-4.0 percentage points), noncitizens (+3.4 percentage points) and Asians (+3.3 percentage points).[9] Among the groups with the impacts that were not statistically significant were those aged 65 and older, individuals in resource units that did not include a married couple, and individuals in resource units with a reference person who was Black alone, Native born, completed high school only or some college, owners, and owners with a mortgage.

These adjustments had a large impact on individuals living outside metropolitan statistical areas. For almost all of these individuals (1.753 million of 1.761 million) the geographic adjustments moved them from in poverty to not in poverty.[10] Poverty rates for these individuals decrease by 4.0 percentage points from 16.8 percent without geographic adjustments to 12.8 percent with the MRI adjustment. Among those living inside MSAs, results were mixed with 5 million pushed into poverty and 2 million taken out of poverty for a net increase in the poverty rate of 1.1 percentage point (from 13.04 percent to 14.09 percent).

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[6] The estimates in this paper (which may be shown in text, figures, and tables) are from the 2016, 2017 and 2018 CPS ASEC and are based on responses from a sample of the population. They 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 at www2.census.gov/library/publications/2016/demo/256/p60-256sa.pdf.

[7] The percent with a change in poverty status for those with less than a high school education was not different than the percent for noncitizens, those with public insurance, those in female-headed households.

[8] The difference in the percent with a change in poverty status in the West and the Northeast was not statistically significant.

[9] The differences in net changes in poverty rates for these three groups were not statistically significant.

[10] Individuals living outside metropolitan statistical areas in three states (Alaska, Hawaii and New Hampshire) were moved into poverty by the adjustments.

The impact also varied by region of the country. Poverty status changed for about 3.3 percent of the population in the Northeast and 3.6 percent of the population in the West. Percentages for the Midwest and the South were 2.0 percent and 2.3 percent respectively. Net changes in poverty rates were increases in poverty rates of 2.4 percentage points in the Northeast and 2.6 percentage points in the West with decreases of 1.7 percentage point in the Midwest and 0.8 percentage point in the South.[11]

Applying the MRI to the SPM thresholds dramatically changes poverty rates in many states and the District of Columbia.[12] The first three columns of Table 3 show the percent of the population with a change in poverty status when applying the MRI adjustment by state. The states with the largest percent changes in status include Hawaii (5.7 percent), California (5.2 percent), Mississippi (4.7 percent), West Virginia (4.4 percent) and the District of Columbia (5.4 percent).[13] States with the lowest share of the population with status changes were Rhode Island (0.2 percent) and Nevada (0.3 percent).[14]

Table 4 looks at the net changes in poverty status for the states and the District of Columbia that result from the introduction of the MRI adjustment. Differences in poverty rates were statistically significant in 45 states and the District of Columbia. Poverty rates went down in 29 states and up in 16 states and the District of Columbia. Poverty rates increased by 5.7 percentage points in Hawaii and decreased by 4.7 percentage points in Mississippi. For five states, the differences in the poverty rates were not statistically significant: Colorado, Illinois, Maine, Oregon, and Pennsylvania.

4. Impact of Moderating the Geographic Adjustment

This paper explores a simple change to the geographic adjustment mechanism to account for differences in amenities. The median rent index, adjusts only the shelter portion of the SPM thresholds (about half for renters and those with a mortgage) for geographic differences in housing costs. We could account for amenities by reducing the adjustment to only a fraction of the housing portion of the threshold. This analysis arbitrarily reduces the adjustment to one half of the housing portion of the threshold.

Using this modified adjustment, the percentage of individuals whose poverty status changes would be reduced from 2.7 percent (8.8 million) to 2.0 percent (6.4 million). (See Table 1.) For almost all demographic and geographic groups, the modified adjustment changes the status for a smaller percentage of the population. The only group for which the modified adjustment changes the status of a greater share of the population are those with disabilities. For

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[11] The difference in the percentage point changes in the poverty rates for the West and the Northeast was not statistically significant.

[12] This analysis uses three-year average poverty rates for all state analysis – using estimates for 2015,2016 and 2017 from the 2016, 2017 and 2018 CPS ASECs.

[13] For the states with the highest shares, the differences in the percent with status changes among them were not statistically significant.

[14] The difference in the estimates for Nevada and Rhode Island is not statistically significant.

three other groups (unrelated individuals, Blacks and renters) the differences in the percent with a poverty status change comparing the two adjustments are not statistically significant.

Using the amenities-adjusted index, 4.7 million people would change status from not in poverty without geographic adjustments to in poverty and 1.7 million people would go from in poverty to not in poverty, increasing the overall poverty rate to 14.4 percent for the entire population. See Table 5.

These changes particularly reduce the share of individuals living outside MSAs whose poverty status changes with the adjustment – from 4.1 percent using the MRI to 2.4 percent using the amenities adjusted index. (See Table 1). Poverty rates for these individuals increase from 12.8 percent using the MRI to 15.5 percent using the modified adjustment. (See Table 6).

By state, the modified adjustment decreases the number of states with statistically significant changes in their poverty rates from 45 states to 39 states. The District of Columbia continues to have a statistically significant change in its poverty rate. The modified adjustment increases poverty rates, relative to the unadjusted SPM rates, in 23 states and decreases rates in 17 states. The changes with the modified adjustment range from a 5.4 percentage point increase in the District of Columbia to a 1.8 percentage point decrease in Arkansas. (Table 7)

Comparing the MRI adjustment to the modified amenities adjustment, poverty rates experience statistically significant changes in 42 states. Poverty rates were higher using the modified adjustment in 37 states and lower in 5 states. The state with the largest increase in poverty rate was Mississippi (increasing from 15.9 percent to 19.5 percent. The state with the largest decline was Hawaii (decreasing from 15.0 percent to 13.1 percent). (Table 8).

5. Correlations between State Poverty Rates and Other Measures of Economic Well-being

One way to evaluate these two approaches to geographic adjustments is to examine how well state poverty rates under each approach correlate to other state-level indicators of economic well-being. An alternative measure of well-being is a multi-dimensional deprivation index (MDDI) currently being researched at the Census Bureau. (Glassman, forthcoming). This measure considers various dimensions of well-being including, health, income, education, economic security, housing and neighborhood quality. Although data are drawn primarily from the American Community Survey, the MDDI also uses from the Current Population Survey Annual Social and Economic Supplement, as well as data on neighborhood quality.

Table 9 compares the correlation of various poverty estimates to the MDDI. The poverty rates using the amenities adjusted rent index are more highly correlated with the measure than existing SPM rates using the MRI. They are also more highly correlated to this index than the state poverty rates estimated for a previous paper using Regional Price Parities (RPPs) either broadly or narrowly defined based on only food, apparel and rent (FAR). They are also more highly correlated than the SPM without geographic adjustments.

Since the MDDI uses the official poverty measure as one of its dimensions, it is useful to examine the correlation between the state poverty rates using various approaches to the individual components of these indexes. These comparisons are shown in Table 10. For each of these dimensions, the correlation using the amenity-moderated geographic index results in a higher correlation than the current methodology with the exception of the housing quality component. Not surprising, the current adjustment approach correlates more closely with deprivation in housing quality.

Comparing the correlations for the state poverty rates using the amenity-moderated index with the correlations for the state poverty rates using RPPs, the difference in the correlation coefficients for the education dimension is not statistically significant. The correlation coefficients for the amenity-moderated approach are higher for all other the dimensions and indexes except for housing quality. For housing quality the RPP state poverty estimates are more highly correlated to the state incidence rates for poor housing quality. The correlations with the amenity-moderated state poverty rates are higher than the correlations using the narrowly defined RPPs (FAR) index for every dimension except housing quality.

Finally, we can compare correlations of the amenities-adjusted state poverty rates to the state poverty rates when no geographic adjustment is applied. The amenities-adjusted poverty rates are more highly correlated with education and housing quality, less correlated with the official poverty measure, health and economic security dimensions. The difference in the correlation with neighborhood quality is not statistically significant.

Conclusion

This paper makes a first effort at moderating the geographic adjustment of the SPM thresholds to take into account amenities. This is done by reducing the "weight" of the median rent index by half before estimating SPM rates. This moderation of the adjustment reduces the number of individuals whose poverty status is changed by the geographic adjustments of the thresholds from 8.8 million (2.7 percent) to 6.4 million (2.0 percent). The national SPM rate for 2017 would increase from 13.9 percent to 14.4 percent. The current geographic adjustment mechanism decreases poverty rates for 29 states. The moderated adjustment would decrease poverty rates (relative to the non-adjusted rates) in only 17 states. The state rates with the amenities-moderated adjustment are more highly correlated with the multi-dimensional deprivation index than rates using either the current method, methods using the Bureau of Economic Analysis's RPPS explored in previous work or the rates without any geographic adjustments.

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Table 1. Comparing Number and Percent of Population with Poverty Status Changes Median Rent Index to Amenities Adjusted Index: 2017

Numbers in thousands.

Characteristics	Total	Median Rent Index (MRI)				Amenities Adjusted Index (AAI)				Difference[2]: AAI minus MRI	
		Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
People											
Total	323,200	8,844	**410**	**2.7**	**0.1**	6,412	**362**	13.5	0.1	*-2,433	*-0.8
Sex											
Male	158,400	4,125	218	2.6	0.1	2,741	181	1.7	0.1	*-1,384	*-0.9
Female	164,700	4,720	238	2.9	0.1	3,671	215	2.2	0.1	*-1,049	*-0.6
Age											
Under age 18	73,960	2,582	183	3.5	0.3	1,819	152	2.5	0.2	*-763	*-1.0
Age 18 to 64	198,100	4,906	250	2.5	0.1	3,385	221	1.7	0.1	*-1,521	*-0.8
Age 65 and older	51,080	1,357	106	2.7	0.2	1,208	106	2.4	0.2	*-148	*-0.3
Type of Unit											
Married-couple	193,600	4,058	289	2.1	0.2	2,319	238	1.2	0.1	*-1,739	*-0.9
Cohabiting partners	26,830	746	127	2.8	0.5	428	94	1.6	0.4	*-318	*-1.2
Female reference person	42,450	2,070	190	4.9	0.5	1,812	184	4.3	0.4	*-258	*-0.6
Male reference persons	14,630	513	103	3.5	0.7	300	72	2.1	0.5	*-212	*-1.5
Unrelated individuals	45,680	1,458	108	3.2	0.2	1,553	101	3.4	0.2	95	0.2
Race[3] and Hispanic Origin											
White	247,700	6,131	351	2.5	0.1	4,155	303	1.7	0.1	*-1,976	*-0.8
White, not Hispanic	195,500	3,687	260	1.9	0.1	2,548	214	1.3	0.1	*-1,139	*-0.6
Black	42,560	1,421	170	3.3	0.4	1,477	150	3.5	0.4	56	0.1
Asian	19,480	756	125	3.9	0.6	396	80	2.0	0.4	*-360	*-1.9
Hispanic (any race)	59,230	2,799	240	4.7	0.4	1,948	211	3.3	0.4	*-850	*-1.4
Nativity											
Native born	277,700	6,783	334	2.4	0.1	5,070	299	1.8	0.1	*-1,714	*-0.6
Foreign born	45,410	2,061	189	4.5	0.4	1,342	138	3.0	0.3	*-719	*-1.6
Naturalized citizen	21,850	848	98	3.9	0.5	660	83	3.0	0.4	*-187	*-0.9
Not a citizen	23,550	1,213	146	5.2	0.6	682	106	2.9	0.4	*-532	*-2.3
Educational Attainment											
Total, age 25 and older	219,800	5,210	240	2.4	0.1	3,954	216	1.8	0.1	*-1,256	*-0.6
No high school diploma	22,410	1,233	110	5.5	0.5	1,034	90	4.6	0.4	*-199	*-0.9
High school, no college	62,690	1,961	136	3.1	0.2	1,446	115	2.3	0.2	*-515	*-0.8
Some college, no degree	57,810	1,267	102	2.2	0.2	1,004	92	1.7	0.2	*-263	*-0.5
Bachelor's degree or higher	76,920	748	79	1.0	0.1	469	72	0.6	0.1	*-279	*-0.4
Tenure											
Owner	214,900	4,026	289	1.9	0.1	1,936	201	0.9	0.1	*-2,090	*-1.0
With mortgage	138,900	2,403	227	1.7	0.2	1,214	168	0.9	0.1	*-1,189	*-0.9
Without mortgage	79,340	1,778	161	2.2	0.2	812	111	1.0	0.1	*-966	*-1.2
Renters	104,900	4,663	299	4.5	0.3	4,386	285	4.2	0.3	-277	-0.3
Residence[4]											
Inside metropolitan statistical areas	280,000	7,083	402	2.5	0.1	5,369	330	1.9	0.1	*-1,715	*-0.6
inside principal cities	104,100	3,328	284	3.2	0.3	2,916	247	2.8	0.2	*-412	*-0.4
outside principal cities	176,000	3,755	306	2.1	0.2	2,452	222	1.4	0.1	*-1,303	*-0.7
Outside metropolitan statistical areas	43,110	1,761	189	4.1	0.4	1,043	136	2.4	0.3	*-718	*-1.7
Region											
Northeast	56,070	1,828	195	3.3	0.4	1,610	165	2.9	0.3	*-218	*-0.4
Midwest	67,480	1,376	149	2.0	0.2	1,029	147	1.5	0.2	*-347	*-0.5
South	122,500	2,851	252	2.3	0.2	2,009	193	1.6	0.2	*-843	*-0.7
West	77,130	2,789	229	3.6	0.3	1,764	194	2.3	0.3	*-1,025	*-1.3
Health Insurance Coverage											
With private insurance	217,000	3,896	279	1.8	0.1	2,240	236	1.0	0.1	*-1,656	*-0.8
With public, no private insurance	77,610	3,940	263	5.1	0.3	3,567	241	4.6	0.3	*-373	*-0.5
Not insured	28,540	1,009	109	3.5	0.4	605	93	2.1	0.3	*-404	*-1.4
Work Experience											
Total, aged 18 to 64	198,100	4,906	250	2.5	0.1	3,385	221	1.7	0.1	*-1,521	*-0.8
All workers	152,200	3,022	171	2.0	0.1	1,797	148	1.2	0.1	*-1,225	*-0.8
Full time full-time, year-round	109,700	1,628	114	1.5	0.1	885	88	0.8	0.1	*-743	*-0.7
Less than full-time, year-round	42,500	1,393	112	3.3	0.3	911	93	2.1	0.2	*-482	*-1.1
Did not work at least 1 week	45,910	1,884	133	4.1	0.3	1,588	130	3.5	0.3	*-296	*-0.7
Disability Status											
Total, aged 18 to 64	198,100	4,906	250	2.5	0.1	3,385	221	1.7	0.1	*-1,521	*-0.8
With a disability	15,120	608	72	4.0	0.5	720	86	4.8	0.6	*112	*0.7
With no disability	182,000	4,293	236	2.4	0.1	2,664	195	1.5	0.1	*-1,629	*-0.9

*An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

[1]A margin of error is a measure of an estimate's variability. The larger the margin of error in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. Margins of error shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www2.census.gov/library/publications/2018/demo/p60-263sa.pdf>.

[2]Details may not sum to totals because of rounding.

[3]Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White and American Indian and Alaska Native or Asian and Black or African American, is available from the 2010 Census through American FactFinder. About 2.9 percent of people reported more than one race in the 2010 Census. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

[4]For information on metropolitan statistical areas and principal cities, see <www.census.gov/programs-surveys/metro-micro/about/glossary.html>.

Source: Current Population Survey Annual Social and Economic Supplement: 2018

Table 2. Comparing Poverty Rates Using the Median Rent Index to No Geographic Adjustment: 2017

Characteristics	Total	Median Rent Index (MRI)				No Geographic Adjustment (NGA)				Difference[2]: MRI minus NGA	
		Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
People											
Total	323,200	44,970	**993**	**13.9**	**0.3**	43,750	**1,005**	**13.5**	**0.3**	***1,222**	***0.4**
Sex											
Male	158,400	20,720	501	13.1	0.3	20,070	501	12.7	0.3	*650	*0.4
Female	164,700	24,260	570	14.7	0.4	23,680	582	14.4	0.4	*572	*0.3
Age											
Under age 18	73,960	11,520	399	15.6	0.5	11,170	389	15.1	0.5	*351	*0.5
Age 18 to 64	198,100	26,240	628	13.3	0.3	25,340	631	12.8	0.3	*902	*0.5
Age 65 and older	51,080	7,207	274	14.1	0.5	7,237	270	14.2	0.5	-30	-0.1
Type of Unit											
Married-couple	193,600	16,880	663	8.7	0.3	15,810	653	8.2	0.3	*1,069	*0.6
Cohabiting partners	26,830	3,558	298	13.3	1.1	3,612	307	13.5	1.1	-54	-0.2
Female reference person	42,450	11,410	448	26.9	0.9	11,240	446	26.5	0.9	168	0.4
Male reference persons	14,630	2,382	208	16.3	1.3	2,329	208	15.9	1.3	54	0.4
Unrelated individuals	45,680	10,750	375	23.5	0.7	10,760	367	23.6	0.7	-14	Z
Race[3] and Hispanic Origin											
White	247,700	30,430	780	12.3	0.3	30,000	790	12.1	0.3	*434	*0.2
White, not Hispanic	195,500	19,250	594	9.8	0.3	20,160	640	10.3	0.3	*-909	*-0.5
Black	42,560	9,394	410	22.1	1.0	9,270	402	21.8	1.0	124	0.3
Asian	19,480	2,948	204	15.1	1.0	2,311	196	11.9	1.0	*636	*3.3
Hispanic (any race)	59,230	12,650	488	21.4	0.8	11,140	446	18.8	0.8	*1,513	*2.6
Nativity											
Native born	277,700	35,540	864	12.8	0.3	5,070	892	12.9	0.3	-224	-0.1
Foreign born	45,410	9,435	367	20.8	0.7	1,342	325	17.6	0.7	*1,447	*3.2
Naturalized citizen	21,850	3,513	195	16.1	0.8	660	181	13.1	0.8	*652	*3.0
Not a citizen	23,550	5,921	297	25.1	1.1	682	260	21.8	1.0	*795	*3.4
Educational Attainment											
Total, age 25 and older	219,800	5,210	635	12.7	0.3	3,954	638	12.3	0.3	*682	*0.3
No high school diploma	22,410	1,233	259	28.7	1.0	1,034	256	27.9	1.0	*184	*0.8
High school, no college	62,690	1,961	350	16.0	0.5	1,446	349	15.8	0.5	117	0.2
Some college, no degree	57,810	1,267	247	10.8	0.4	1,004	250	10.8	0.4	26	Z
Bachelor's degree or higher	76,920	748	207	6.6	0.3	469	201	6.1	0.3	*355	*0.5
Tenure											
Owner	214,900	19,760	612	9.2	0.3	19,780	643	9.2	0.3	-17	Z
With mortgage	138,900	10,490	478	7.6	0.3	10,320	474	7.4	0.3	173	0.1
Without mortgage	79,340	9,886	444	12.5	0.5	10,140	467	12.8	0.6	*-249	*-0.3
Renters	104,900	24,590	706	23.5	0.6	23,300	699	22.2	0.6	*1,299	*1.2
Residence[4]											
Inside metropolitan statistical areas	280,000	39,470	955	14.1	0.3	36,510	962	13.0	0.3	*2,967	*1.1
inside principal cities	104,100	18,220	687	17.5	0.6	16,790	671	16.1	0.6	*1,430	*1.4
outside principal cities	176,000	21,260	666	12.1	0.4	19,720	637	11.2	0.3	*1,537	*0.9
Outside metropolitan statistical areas	43,110	5,500	463	12.8	0.6	7,245	577	16.8	0.7	*-1,745	*-4.0
Region											
Northeast	56,070	7,976	396	14.2	0.7	6,644	355	11.9	0.6	*1,331	*2.4
Midwest	67,480	7,198	372	10.7	0.6	8,337	390	12.4	0.6	*-1,140	*-1.7
South	122,500	18,150	651	14.8	0.5	19,100	648	15.6	0.5	*-951	*-0.8
West	77,130	11,650	404	15.1	0.5	9,670	376	12.5	0.5	*1,982	*2.6
Health Insurance Coverage											
With private insurance	217,000	17,870	602	8.2	0.3	17,190	600	7.9	0.3	*681	*0.3
With public, no private insurance	77,610	19,850	579	25.6	0.7	19,450	570	25.1	0.7	*400	*0.5
Not insured	28,540	7,249	343	25.4	1.0	7,108	330	24.9	1.0	*141	*0.5
Work Experience											
Total, aged 18 to 64	198,100	26,240	628	13.3	0.3	25,340	631	12.8	0.3	*902	*0.5
All workers	152,200	12,170	362	8.0	0.2	11,420	359	7.5	0.2	*754	*0.5
Full time full-time, year-round	109,700	5,368	205	4.9	0.2	4,866	194	4.4	0.2	*502	*0.5
Less than full-time, year-round	42,500	6,804	270	16.0	0.6	6,552	267	15.4	0.6	*252	*0.6
Did not work at least 1 week	45,910	14,070	434	30.7	0.8	13,930	445	30.3	0.8	*147	*0.3
Disability Status[5]											
Total, aged 18 to 64	198,100	26,240	628	13.3	0.3	25,340	631	12.8	0.3	*902	*0.5
With a disability	15,120	3,550	163	23.5	1.0	3,804	183	25.2	1.1	*-254	*-1.7
With no disability	182,000	22,660	576	12.5	0.3	21,500	568	11.8	0.3	*1,154	*0.6

*An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

Table 3. Change in Poverty Status with Introduction of Geographic Adjustments, by State Using 3-Year Averages: 2015 to 2017

Numbers in thousands

State	Median Rent Index (MRI)				Amenities Adjusted Index (AAI)				Difference[2]: MRI minus AAI	
	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]		Percent
AL	159	49	3.3	1.0	106	33	2.2	0.7	*53	*1.1
AK	17	5	2.3	0.7	14	3	2.0	13.5	3	0.4
AZ	56	24	0.8	0.3	44	13	0.6	0.2	12	0.2
AR	123	16	4.2	0.5	76	14	2.6	0.5	*47	*1.6
CA	2,044	121	5.2	0.3	1,314	105	3.4	0.3	*730	*1.9
CO	66	20	1.2	0.4	62	19	1.1	0.4	5	0.1
CT	66	19	1.9	0.5	79	20	2.2	0.6	-12	-0.3
DE	12	4	1.3	0.4	12	4	1.3	0.4	0	Z
DC	37	5	5.4	0.8	37	5	5.4	0.8	0	0.1
FL	420	56	2.0	0.3	357	52	1.7	0.3	*62	*0.3
GA	181	72	1.8	0.7	142	41	1.4	0.4	39	0.4
HI	80	12	5.7	0.9	53	11	3.8	0.8	*27	*1.9
ID	49	11	2.9	0.7	35	11	2.0	0.6	*15	*0.9
IL	175	31	1.4	0.2	139	29	1.1	0.2	*36	*0.3
IN	158	40	2.4	0.6	115	35	1.8	0.5	*43	*0.7
IA	60	17	2.0	0.6	42	10	1.4	0.3	*18	*0.6
KS	73	18	2.6	0.6	48	16	1.7	0.5	*26	*0.9
KY	179	43	4.1	1.0	102	24	2.3	0.5	*77	*1.8
LA	117	31	2.6	0.7	76	27	1.7	0.6	*41	*0.9
ME	19	6	1.4	0.4	24	8	1.8	0.6	-5	-0.4
MD	264	47	4.4	0.8	197	44	3.3	0.7	*67	*1.1
MA	194	34	2.9	0.5	207	31	3.0	0.5	-13	-0.2
MI	157	40	1.6	0.4	152	5,070	1.5	0.3	5	0.1
MN	75	25	1.4	0.4	55	1,342	1.0	0.3	20	0.4
MS	139	18	4.7	0.6	84	660	2.8	0.4	*55	*1.9
MO	125	38	2.1	0.6	83	682	1.4	0.3	*42	*0.7
MT	26	5	2.5	0.5	16		1.6	0.3	*10	*0.9
NE	219,800	5,210	1.5	0.4	24	3,954	1.3	0.4	4	0.2
NV	22,410	1,233	0.3	0.2	18	1,034	0.6	0.3	*-7	*-0.3
NH	62,690	1,961	1.4	0.4	22	1,446	1.7	0.4	-3	-0.2
NJ	57,810	1,267	4.0	0.6	245	1,004	2.7	0.5	*115	*1.3
NM	76,920	748	2.3	0.5	34	469	1.7	0.3	*12	*0.6
NY	815	78	4.1	0.4	686	68	3.5	0.3	*128	*0.7
NC	232	41	2.3	0.4	158	28	1.6	0.3	*75	*0.7
ND	15	5	2.0	0.7	9	2	1.1	0.3	*6	*0.8
OH	258	40	2.2	0.3	242	41	2.1	0.4	16	0.1
OK	106	18	2.7	0.5	74	14	1.9	0.4	*32	*0.8
OR	39	17	1.0	0.4	33	12	0.8	0.3	7	0.2
PA	229	42	1.8	0.3	216	35	1.7	0.3	13	0.1
RI	2	2	0.2	0.2	17	6	1.6	0.6	*-15	*-1.4
SC	110	28	2.2	0.6	75	19	1.5	0.4	*35	*0.7
SD	20	3	2.4	0.4	18	5	2.1	0.6	2	0.3
TN	131	27	2.0	0.4	93	19	1.4	0.3	*38	*0.6
TX	348	44	1.3	0.2	287	48	1.0	0.2	*60	*0.2
UT	39	8	1.3	0.3	32	8	1.0	0.3	7	0.2
VT	5	2	0.8	0.3	8	2	1.3	0.4	*-3	*-0.5
VA	248	48	3.0	0.6	136	32	1.7	0.4	*112	*1.4
WA	131	29	1.8	0.4	116	26	1.6	0.4	15	0.2
WV	79	22	4.4	1.2	54	14	3.0	0.8	*25	*1.4
WI	77	12	1.3	0.2	67	15	1.2	0.3	10	0.2
WY	10	2	1.7	0.3	8	2	1.5	0.3	1	0.2

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

Z Represents or rounds to zero.

Source: Current Population Survey Annual Social and Economic Supplements: 2016 to 2018

Table 4. Comparing MRI Index to No Geographic Adjustment: Three Year Averages 2015-2017

Numbers in thousands

State	Median Rent Index (MRI)				No Geographic Adjustment (NGA)				Difference[2]: MRI minus NGA	
	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]		Percent
AL	678	72	14.0	1.5	837	97	17.3	2.1	*-159	*-3.3
AK	86	10	12.1	1.3	69	8	9.7	13.5	*17	*2.3
AZ	1,069	85	15.6	1.2	1,122	93	16.3	1.3	*-52	*-0.8
AR	417	27	14.2	0.9	540	30	18.3	1.0	*-123	*-4.2
CA	7,462	214	19.0	0.5	5,580	198	14.2	0.5	*1,881	*4.8
CO	597	62	10.9	1.1	575	63	10.5	1.2	22	0.4
CT	445	54	12.5	1.5	379	49	10.6	1.4	*66	*1.9
DE	110	10	11.5	1.1	100	10	10.4	1.1	*11	*1.1
DC	138	8	20.2	1.2	101	7	14.8	1.0	*37	*5.4
FL	3,705	196	18.1	0.9	3,429	198	16.7	0.9	*276	*1.3
GA	1,598	104	15.6	1.0	1,751	123	17.1	1.2	*-153	*-1.5
HI	210	18	15.0	1.3	130	16	9.3	1.1	*80	*5.7
ID	164	20	9.7	1.2	214	19	12.6	1.1	*-49	*-2.9
IL	1,586	110	12.5	0.9	1,587	111	12.6	0.9	-1	Z
IN	787	68	12.1	1.0	918	69	14.1	1.1	*-131	*-2.0
IA	264	27	8.6	0.9	325	28	10.5	0.9	*-60	*-2.0
KS	287	27	10.0	0.9	361	35	12.6	1.2	*-73	*-2.6
KY	602	47	13.7	1.1	780	65	17.8	1.5	*-179	*-4.1
LA	811	76	17.7	1.6	928	78	20.3	1.7	*-117	*-2.6
ME	138	19	10.4	1.5	143	20	10.7	1.5	-5	-0.4
MD	806	74	13.6	1.3	553	60	9.3	1.0	*253	*4.3
MA	889	74	13.1	1.1	695	64	10.2	0.9	*194	*2.9
MI	1,118	97	11.3	1.0	1,275	5,070	12.9	1.1	*-157	*-1.6
MN	446	71	8.1	1.3	474	1,342	8.6	1.2	*-29	*-0.5
MS	468	24	15.9	0.8	607	660	20.6	1.0	*-139	*-4.7
MO	670	79	11.3	1.3	795	682	13.4	1.4	*-125	*-2.1
MT	104	10	10.1	1.1	130		12.6	1.2	*-26	*-2.5
NE	219,800	5,210	9.7	1.2	210	3,954	11.2	1.3	*-28	*-1.5
NV	22,410	1,233	13.6	1.3	392	1,034	13.4	1.2	*7	*0.2
NH	62,690	1,961	8.7	1.0	95	1,446	7.2	0.9	*19	*1.4
NJ	57,810	1,267	15.1	1.1	989	1,004	11.1	1.0	*360	*4.0
NM	76,920	748	15.2	1.2	355	469	17.4	1.4	*-45	*-2.2
NY	3,038	142	15.5	0.7	2,417	138	12.3	0.7	*621	*3.2
NC	1,442	90	14.3	0.9	1,674	102	16.6	1.0	*-232	*-2.3
ND	81	7	10.7	1.0	95	9	12.7	1.2	*-15	*-2.0
OH	1,314	99	11.4	0.9	1,572	109	13.7	0.9	*-258	*-2.3
OK	459	63	11.8	1.6	566	73	14.6	1.9	*-106	*-2.7
OR	517	53	12.5	1.3	532	64	12.9	1.5	-16	-0.4
PA	1,485	113	11.8	0.9	1,516	119	12.0	1.0	-31	-0.2
RI	106	14	10.1	1.4	104	14	9.9	1.3	*2	*0.2
SC	668	56	13.7	1.1	778	60	15.9	1.2	*-110	*-2.3
SD	91	10	10.6	1.2	111	10	12.9	1.2	*-20	*-2.4
TN	873	70	13.1	1.1	1,004	75	15.1	1.1	*-131	*-2.0
TX	4,071	200	14.7	0.7	4,201	199	15.1	0.7	*-130	*-0.5
UT	286	34	9.3	1.1	325	36	10.6	1.2	*-39	*-1.3
VT	63	7	10.2	1.1	60	7	9.7	1.1	*3	*0.6
VA	1,205	101	14.7	1.2	1,062	103	12.9	1.3	*144	*1.8
WA	783	68	10.7	0.9	740	70	10.1	1.0	*43	*0.6
WV	258	24	14.3	1.3	324	42	18.0	2.4	*-66	*-3.7
WI	516	62	8.9	1.1	588	63	10.2	1.1	*-73	*-1.3
WY	59	7	10.4	1.3	69	7	12.1	1.4	*-10	*-1.7

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

Z Represents or rounds to zero.

Source: Current Population Survey Annual Social and Economic Supplements: 2016 to 2018

Table 5. Comparing Amenities Adjusted Index to No Geographic Adjustment: 2017

Numbers in thousands

Characteristics	Total	Amenities Adjusted Index (AAI)				No Geographic Adjustment (NGA)				Difference[2]: AAI minus NGA	
		Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
People											
Total	323,200	46,670	**1,038**	14.4	0.3	43,750	**1,005**	13.5	0.3	*2,921	*0.9
Sex											
Male	158,400	21,190	516	13.4	0.3	20,070	501	12.7	0.3	*1,123	*0.7
Female	164,700	25,480	598	15.5	0.4	23,680	582	14.4	0.4	*1,798	*1.1
Age											
Under age 18	73,960	11,990	399	16.2	0.5	11,170	389	15.1	0.5	*815	*1.1
Age 18 to 64	198,100	26,890	658	13.6	0.3	25,340	631	12.8	0.3	*1,547	*0.8
Age 65 and older	51,080	7,796	279	15.3	0.6	7,237	270	14.2	0.5	*559	*1.1
Type of Unit											
Married-couple	193,600	16,570	676	8.6	0.3	15,810	653	8.2	0.3	*755	*0.4
Cohabiting partners	26,830	3,652	303	13.6	1.1	3,612	307	13.5	1.1	41	0.2
Female reference person	42,450	12,330	460	29.0	0.9	11,240	446	26.5	0.9	*1,086	*2.6
Male reference persons	14,630	2,403	214	16.4	1.3	2,329	208	15.9	1.3	74	0.5
Unrelated individuals	45,680	11,730	391	25.7	0.7	10,760	367	23.6	0.7	*966	*2.1
Race[3] and Hispanic Origin											
White	247,700	31,420	835	12.7	0.3	30,000	790	12.1	0.3	*1,418	*0.6
White, not Hispanic	195,500	20,490	639	10.5	0.3	20,160	640	10.3	0.3	*330	*0.2
Black	42,560	10,240	404	24.1	1.0	9,270	402	21.8	1.0	*966	*2.3
Asian	19,480	2,661	206	13.7	1.0	2,311	196	11.9	1.0	*350	*1.8
Hispanic (any race)	59,230	12,440	495	21.0	0.8	11,140	446	18.8	0.8	*1,294	*2.2
Nativity											
Native born	277,700	37,650	915	13.6	0.3	5,070	892	12.9	0.3	*1,888	*0.7
Foreign born	45,410	9,022	354	19.9	0.7	1,342	325	17.6	0.7	*1,034	*2.3
Naturalized citizen	21,850	3,424	193	15.7	0.8	660	181	13.1	0.8	*563	*2.6
Not a citizen	23,550	5,597	285	23.8	1.1	682	260	21.8	1.0	*471	*2.0
Educational Attainment											
Total, age 25 and older	219,800	5,210	665	13.2	0.3	3,954	638	12.3	0.3	*1,858	*0.8
No high school diploma	22,410	1,233	269	30.4	1.0	1,034	256	27.9	1.0	*565	*2.5
High school, no college	62,690	1,961	346	16.8	0.5	1,446	349	15.8	0.5	*578	*0.9
Some college, no degree	57,810	1,267	257	11.5	0.4	1,004	250	10.8	0.4	*404	*0.7
Bachelor's degree or higher	76,920	748	205	6.5	0.3	469	201	6.1	0.3	*311	*0.4
Tenure											
Owner	214,900	19,760	627	9.2	0.3	19,780	643	9.2	0.3	-24	Z
With mortgage	138,900	10,430	484	7.5	0.3	10,320	474	7.4	0.3	114	0.1
Without mortgage	79,340	9,976	451	12.6	0.5	10,140	467	12.8	0.6	*-160	*-0.2
Renters	104,900	26,260	760	25.0	0.7	23,300	699	22.2	0.6	*2,967	*2.8
Residence[4]											
Inside metropolitan statistical areas	280,000	39,990	1,019	14.3	0.4	36,510	962	13.0	0.3	*3,488	*1.2
inside principal cities	104,100	18,800	720	18.1	0.6	16,790	671	16.1	0.6	*2,019	*1.9
outside principal cities	176,000	21,190	674	12.0	0.4	19,720	637	11.2	0.3	*1,468	*0.8
Outside metropolitan statistical areas	43,110	6,678	541	15.5	0.7	7,245	577	16.8	0.7	*-566	*-1.3
Region											
Northeast	56,070	8,068	385	14.4	0.7	6,644	355	11.9	0.6	*1,423	*2.5
Midwest	67,480	8,234	377	12.2	0.6	8,337	390	12.4	0.6	-103	-0.2
South	122,500	19,400	665	15.8	0.5	19,100	648	15.6	0.5	*300	*0.2
West	77,130	10,970	402	14.2	0.5	9,670	376	12.5	0.5	*1,301	*1.7
Health Insurance Coverage											
With private insurance	217,000	17,800	621	8.2	0.3	17,190	600	7.9	0.3	*611	*0.3
With public, no private insurance	77,610	21,580	581	27.8	0.7	19,450	570	25.1	0.7	*2,125	*2.7
Not insured	28,540	7,294	344	25.6	1.0	7,108	330	24.9	1.0	*186	*0.7
Work Experience											
Total, aged 18 to 64	198,100	26,890	658	13.6	0.3	25,340	631	12.8	0.3	*1,547	*0.8
All workers	152,200	12,140	379	8.0	0.3	11,420	359	7.5	0.2	*726	*0.5
Full time full-time, year-round	109,700	5,153	210	4.7	0.2	4,866	194	4.4	0.2	*288	*0.3
Less than full-time, year-round	42,500	6,990	266	16.5	0.6	6,552	267	15.4	0.6	*439	*1.0
Did not work at least 1 week	45,910	14,750	445	32.1	0.8	13,930	445	30.3	0.8	*821	*1.8
Disability Status[5]											
Total, aged 18 to 64	198,100	26,890	658	13.6	0.3	25,340	631	12.8	0.3	*1,547	*0.8
With a disability	15,120	4,158	192	27.5	1.1	3,804	183	25.2	1.1	*354	*2.3
With no disability	182,000	22,700	595	12.5	0.3	21,500	568	11.8	0.3	*1,193	*0.7

*An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

Z Represents or rounds to zero.

[1]A margin of error is a measure of an estimate's variability. The larger the margin of error in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. Margins of error shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www2.census.gov/library/publications/2018/demo/p60-263sa.pdf>.

[2]Details may not sum to totals because of rounding.

[3]Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White and American Indian and Alaska Native or Asian and Black or African American, is available from the 2010 Census through American FactFinder. About 2.9 percent of people reported more than one race in the 2010 Census. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

[4]For information on metropolitan statistical areas and principal cities, see <www.census.gov/programs-surveys/metro-micro/about/glossary.html>

[5]The sum of those with and without disability does not equal the total because disability sttus is not defined for individuals in the U.S. Armed Forces

Source: Current Population Survey Annual Social and Economic Supplement: 2018

Table 6. Comparing Median Rent Index to Amenities Adjusted Index: 2017

Numbers in thousands

Characteristics	Total	Median Rent Index (MRI)				Amenities Adusted Index (AAI)				Difference[2]: AAI minus MRI	
		Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
People											
Total	323,200	44,970	993	13.9	0.3	46,670	1,038	13.5	0.3	*1,699	*0.5
Sex											
Male	158,400	20,720	501	13.1	0.3	21,190	516	13.4	0.3	*473	*0.3
Female	164,700	24,260	570	14.7	0.4	25,480	598	15.5	0.4	*1,226	*0.7
Age											
Under age 18	73,960	11,520	399	15.6	0.5	11,990	399	16.2	0.5	*464	*0.6
Age 18 to 64	198,100	26,240	628	13.3	0.3	26,890	658	13.6	0.3	*646	*0.3
Age 65 and older	51,080	7,207	274	14.1	0.5	7,796	279	15.3	0.6	*589	*1.2
Type of Unit											
Married-couple	193,600	16,880	663	8.7	0.3	16,570	676	8.6	0.3	*-314	*-0.2
Cohabiting partners	26,830	3,558	298	13.3	1.1	3,652	303	13.6	1.1	95	0.4
Female reference person	42,450	11,410	448	26.9	0.9	12,330	460	29.0	0.9	*918	*2.2
Male reference persons	14,630	2,382	208	16.3	1.3	2,403	214	16.4	1.3	21	0.1
Unrelated individuals	45,680	10,750	375	23.5	0.7	11,730	391	25.7	0.7	*980	*2.1
Race[3] and Hispanic Origin											
White	247,700	30,430	780	12.3	0.3	31,420	835	12.7	0.3	*984	*0.4
White, not Hispanic	195,500	19,250	594	9.8	0.3	20,490	639	10.5	0.3	*1,240	*0.6
Black	42,560	9,394	410	22.1	1.0	10,240	404	24.1	1.0	*842	*2.0
Asian	19,480	2,948	204	15.1	1.0	2,661	206	13.7	1.0	*-287	*-1.5
Hispanic (any race)	59,230	12,650	488	21.4	0.8	12,440	495	21.0	0.8	*-219	*-0.4
Nativity											
Native born	277,700	35,540	864	12.8	0.3	5,070	915	13.6	0.3	*2,112	*0.8
Foreign born	45,410	9,435	367	20.8	0.7	1,342	354	19.9	0.7	*-413	*-0.9
Naturalized citizen	21,850	3,513	195	16.1	0.8	660	193	15.7	0.8	*-89	*-0.4
Not a citizen	23,550	5,921	297	25.1	1.1	682	285	23.8	1.1	*-324	*-1.4
Educational Attainment											
Total, age 25 and older	219,800	5,210	635	12.7	0.3	3,954	665	13.2	0.3	*1,176	*0.5
No high school diploma	22,410	1,233	259	28.7	1.0	1,034	269	30.4	1.0	*381	*1.7
High school, no college	62,690	1,961	350	16.0	0.5	1,446	346	16.8	0.5	*460	*0.7
Some college, no degree	57,810	1,267	247	10.8	0.4	1,004	257	11.5	0.4	*378	*0.7
Bachelor's degree or higher	76,920	748	207	6.6	0.3	469	205	6.5	0.3	-44	-0.1
Tenure											
Owner	214,900	19,760	612	9.2	0.3	19,760	627	9.2	0.3	-7	Z
With mortgage	138,900	10,490	478	7.6	0.3	10,430	484	7.5	0.3	-59	Z
Without mortgage	79,340	9,886	444	12.5	0.5	9,976	451	12.6	0.5	90	0.1
Renters	104,900	24,590	706	23.5	0.6	26,260	760	25.0	0.7	*1,669	*1.6
Residence[4]											
Inside metropolitan statistical areas	280,000	39,470	955	14.1	0.3	39,990	1,019	14.3	0.4	*521	*0.2
inside principal cities	104,100	18,220	687	17.5	0.6	18,800	720	18.1	0.6	*589	*0.6
outside principal cities	176,000	21,260	666	12.1	0.4	21,190	674	12.0	0.4	-68	Z
Outside metropolitan statistical areas	43,110	5,500	463	12.8	0.6	6,678	541	15.5	0.7	*1,179	*2.7
Region											
Northeast	56,070	7,976	396	14.2	0.7	8,068	385	14.4	0.7	92	0.2
Midwest	67,480	7,198	372	10.7	0.6	8,234	377	12.2	0.6	*1,037	*1.5
South	122,500	18,150	651	14.8	0.5	19,400	665	15.8	0.5	*1,252	*1.0
West	77,130	11,650	404	15.1	0.5	10,970	402	14.2	0.5	*-682	*-0.9
Health Insurance Coverage											
With private insurance	217,000	17,870	602	8.2	0.3	17,800	621	8.2	0.3	-70	Z
With public, no private insurance	77,610	19,850	579	25.6	0.7	21,580	581	27.8	0.7	*1,725	*2.2
Not insured	28,540	7,249	343	25.4	1.0	7,294	344	25.6	1.0	45	0.2
Work Experience											
Total, aged 18 to 64	198,100	26,240	628	13.3	0.3	26,890	658	13.6	0.3	*646	*0.3
All workers	152,200	12,170	362	8.0	0.2	12,140	379	8.0	0.3	-28	Z
Full time full-time, year-round	109,700	5,368	205	4.9	0.2	5,153	210	4.7	0.2	*-214	*-0.2
Less than full-time, year-round	42,500	6,804	270	16.0	0.6	6,990	266	16.5	0.6	*186	*0.4
Did not work at least 1 week	45,910	14,070	434	30.7	0.8	14,750	445	32.1	0.8	*674	*1.5
Disability Status[5]											
Total, aged 18 to 64	198,100	26,240	628	13.3	0.3	26,890	658	13.6	0.3	*646	*0.3
With a disability	15,120	3,550	163	23.5	1.0	4,158	192	27.5	1.1	*608	*4.0
With no disability	182,000	22,660	576	12.5	0.3	22,700	595	12.5	0.3	39	Z

*An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

Z Represents or rounds to zero.

[1]A margin of error is a measure of an estimate's variability. The larger the margin of error in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. Margins of error shown in this table are based on standard errors calculated using replicate weights. For more information, see "Standard Errors and Their Use" at <www2.census.gov/library/publications/2018/demo/p60-263sa.pdf>.

[2]Details may not sum to totals because of rounding.

[3]Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White and American Indian and Alaska Native or Asian and Black or African American, is available from the 2010 Census through American FactFinder. About 2.9 percent of people reported more than one race in the 2010 Census. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

[4]For information on metropolitan statistical areas and principal cities, see <www.census.gov/programs-surveys/metro-micro/about/glossary.html>

[5]The sum of those with and without disability does not equal the total because disability sttus is not defined for individuals in the U.S. Armed Forces

Source: Current Population Survey Annual Social and Economic Supplement: 2018

Table 7. Comparing Amenities Adjusted Index to No Geographic Adjustment: Three Year Averages 2015-2017

Numbers in thousands

State	Amenities Adjusted Index (AAI)				No Geographic Adjustment (NGA)				Difference[2]: AAI minus NGA	
	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
AL	786	75	16.3	1.6	837	97	17.3	2.1	*-51	*-1.1
AK	83	8	11.7	1.1	69	8	9.7	13.5	*14	*2.0
AZ	1,121	93	16.3	1.4	1,122	93	16.3	1.3	-1	Z
AR	487	27	16.5	0.9	540	30	18.3	1.0	*-53	*-1.8
CA	6,837	222	17.4	0.6	5,580	198	14.2	0.5	*1257	*3.2
CO	629	67	11.5	1.2	575	63	10.5	1.2	*54	*1.0
CT	457	53	12.8	1.5	379	49	10.6	1.4	*79	*2.2
DE	110	11	11.5	1.1	100	10	10.4	1.1	*11	*1.1
DC	138	9	20.1	1.3	101	7	14.8	1.0	*37	*5.4
FL	3,708	200	18.1	1.0	3,429	198	16.7	0.9	*279	*1.4
GA	1,726	107	16.9	1.0	1,751	123	17.1	1.2	-25	-0.3
HI	183	18	13.1	1.3	130	16	9.3	1.1	*53	*3.8
ID	189	19	11.2	1.1	214	19	12.6	1.1	*-25	*-1.5
IL	1,657	109	13.1	0.9	1,587	111	12.6	0.9	*70	*0.6
IN	884	68	13.5	1.1	918	69	14.1	1.1	*-34	*-0.5
IA	303	24	9.8	0.8	325	28	10.5	0.9	*-21	*-0.7
KS	338	31	11.8	1.1	361	35	12.6	1.2	*-23	*-0.8
KY	728	58	16.6	1.3	780	65	17.8	1.5	*-53	*-1.2
LA	912	73	19.9	1.6	928	78	20.3	1.7	*-16	*-0.4
ME	158	25	11.9	1.9	143	20	10.7	1.5	*15	*1.2
MD	741	80	12.5	1.4	553	60	9.3	1.0	*188	*3.2
MA	902	71	13.3	1.1	695	64	10.2	0.9	*207	*3.0
MI	1,255	102	12.7	1.0	1,275	5,070	12.9	1.1	-20	-0.2
MN	507	74	9.2	1.4	474	1,342	8.6	1.2	*33	*0.6
MS	576	32	19.5	1.1	607	660	20.6	1.0	*-31	*-1.1
MO	742	85	12.5	1.4	795	682	13.4	1.4	*-53	*-0.9
MT	121	13	11.7	1.3	130		12.6	1.2	*-9	*-0.9
NE	219,800	5,210	11.2	1.2	210	3,954	11.2	1.3	0	Z
NV	22,410	1,233	14.0	1.3	392	1,034	13.4	1.2	*18	*0.6
NH	62,690	1,961	8.9	1.1	95	1,446	7.2	0.9	*22	*1.7
NJ	57,810	1,267	13.8	1.1	989	1,004	11.1	1.0	*245	*2.8
NM	76,920	748	16.8	1.4	355	469	17.4	1.4	*-12	*-0.6
NY	3,020	145	15.4	0.7	2,417	138	12.3	0.7	*603	*3.1
NC	1,582	108	15.7	1.1	1,674	102	16.6	1.0	*-92	*-0.9
ND	93	9	12.4	1.2	95	9	12.7	1.2	-2	-0.3
OH	1,552	108	13.5	0.9	1,572	109	13.7	0.9	-19	-0.2
OK	534	76	13.8	1.9	566	73	14.6	1.9	*-31	*-0.8
OR	536	59	13.0	1.4	532	64	12.9	1.5	4	0.1
PA	1,607	120	12.8	1.0	1,516	119	12.0	1.0	*91	*0.7
RI	121	15	11.5	1.5	104	14	9.9	1.3	*17	*1.6
SC	774	60	15.8	1.2	778	60	15.9	1.2	-4	-0.1
SD	112	11	13.1	1.3	111	10	12.9	1.2	1	0.2
TN	983	74	14.8	1.1	1,004	75	15.1	1.1	*-21	*-0.3
TX	4,296	203	15.5	0.7	4,201	199	15.1	0.7	*95	*0.3
UT	306	37	10.0	1.2	325	36	10.6	1.2	*-19	*-0.6
VT	67	7	10.9	1.2	60	7	9.7	1.1	*7	*1.2
VA	1,144	97	13.9	1.2	1,062	103	12.9	1.3	*82	*1.0
WA	800	65	10.9	0.9	740	70	10.1	1.0	*59	*0.8
WV	303	36	16.8	2.0	324	42	18.0	2.4	*-22	*-1.2
WI	589	52	10.2	0.9	588	63	10.2	1.1	1	Z
WY	68	7	11.9	1.3	69	7	12.1	1.4	-1	-0.3

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

Z Represents or rounds to zero.

Source: Current Population Survey Annual Social and Economic Supplements: 2016 to 2018

Table 8. Comparing MRI Index to Amenities Adjusted Index: Three Year Averages 2015-2017

Numbers in thousands

State	Median Rent Index (MRI)				Amenities Adjusted Index (AAI)				Difference[2]: AAI minus MRI	
	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Margin of error(+/-)[1]	Percent	Margin of error(+/-)[1]	Number	Percent
AL	678	72	14.0	1.5	786	75	16.3	1.6	*108	*2.2
AK	86	10	12.1	1.3	83	8	11.7	13.5	-3	-0.4
AZ	1069	85	15.6	1.2	1121	93	16.3	1.4	*52	*0.8
AR	417	27	14.2	0.9	487	27	16.5	0.9	*70	*2.4
CA	7462	214	19.0	0.5	6837	222	17.4	0.6	*-625	*-1.6
CO	597	62	10.9	1.1	629	67	11.5	1.2	*32	*0.6
CT	445	54	12.5	1.5	457	53	12.8	1.5	12	0.3
DE	110	10	11.5	1.1	110	11	11.5	1.1	0	Z
DC	138	8	20.2	1.2	138	9	20.1	1.3	0	-0.1
FL	3705	196	18.1	0.9	3708	200	18.1	1.0	0	Z
GA	1598	104	15.6	1.0	1726	107	16.9	1.0	*127	*1.3
HI	210	18	15.0	1.3	183	18	13.1	1.3	*-27	*-1.9
ID	164	20	9.7	1.2	189	19	11.2	1.1	*25	*1.5
IL	1586	110	12.5	0.9	1657	109	13.1	0.9	*71	*0.6
IN	787	68	12.1	1.0	884	68	13.5	1.1	*97	*1.5
IA	264	27	8.6	0.9	303	24	9.8	0.8	*39	*1.3
KS	287	27	10.0	0.9	338	31	11.8	1.1	*51	*1.8
KY	602	47	13.7	1.1	728	58	16.6	1.3	*126	*2.9
LA	811	76	17.7	1.6	912	73	19.9	1.6	*101	*2.2
ME	138	19	10.4	1.5	158	25	11.9	1.9	*20	*1.5
MD	806	74	13.6	1.3	741	80	12.5	1.4	*-65	*-1.1
MA	889	74	13.1	1.1	902	71	13.3	1.1	13	0.2
MI	1118	97	11.3	1.0	1255	5,070	12.7	1.0	*137	*1.4
MN	446	71	8.1	1.3	507	1,342	9.2	1.4	*61	*1.1
MS	468	24	15.9	0.8	576	660	19.5	1.1	*108	*3.7
MO	670	79	11.3	1.3	742	682	12.5	1.4	*72	*1.2
MT	104	10	10.1	1.1	121		11.7	1.3	*17	*1.7
NE	219,800	5,210	9.7	1.2	210	3,954	11.2	1.2	*28	*1.5
NV	22,410	1,233	13.6	1.3	410	1,034	14.0	1.3	*11	*0.4
NH	62,690	1,961	8.7	1.0	117	1,446	8.9	1.1	3	0.2
NJ	57,810	1,267	15.1	1.1	1234	1,004	13.8	1.1	*-115	*-1.3
NM	76,920	748	15.2	1.2	343	469	16.8	1.4	*32	*1.6
NY	3038	142	15.5	0.7	3020	145	15.4	0.7	-18	-0.1
NC	1442	90	14.3	0.9	1582	108	15.7	1.1	*140	*1.4
ND	81	7	10.7	1.0	93	9	12.4	1.2	*13	*1.7
OH	1314	99	11.4	0.9	1552	108	13.5	0.9	*239	*2.1
OK	459	63	11.8	1.6	534	76	13.8	1.9	*75	*1.9
OR	517	53	12.5	1.3	536	59	13.0	1.4	*20	*0.5
PA	1485	113	11.8	0.9	1607	120	12.8	1.0	*122	*1.0
RI	106	14	10.1	1.4	121	15	11.5	1.5	*15	*1.4
SC	668	56	13.7	1.1	774	60	15.8	1.2	*106	*2.2
SD	91	10	10.6	1.2	112	11	13.1	1.3	*22	*2.5
TN	873	70	13.1	1.1	983	74	14.8	1.1	*111	*1.7
TX	4071	200	14.7	0.7	4296	203	15.5	0.7	*225	*0.8
UT	286	34	9.3	1.1	306	37	10.0	1.2	*20	*0.7
VT	63	7	10.2	1.1	67	7	10.9	1.2	*4	*0.6
VA	1205	101	14.7	1.2	1144	97	13.9	1.2	*-61	*-0.7
WA	783	68	10.7	0.9	800	65	10.9	0.9	16	0.2
WV	258	24	14.3	1.3	303	36	16.8	2.0	*45	*2.5
WI	516	62	8.9	1.1	589	52	10.2	0.9	*73	*1.3
WY	59	7	10.4	1.3	68	7	11.9	1.3	*8	*1.4

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

Z Represents or rounds to zero.

Source: Current Population Survey Annual Social and Economic Supplements: 2016 to 2018

Table 9. Correlation of the SPM State Rates with MDDI State Rates

Measure	Correlation to MDDI	Margin of error(+/-)
Current Methodology (MRI)	0.711	0.042
Amenities-Adjusted (AAI)	0.821	0.039
Regional Price Parities (RPP)	0.733	0.048
Regional Price Parities: Food Apparel and Rent (FAR)	0.531	0.045
Not Geographically Adjusted (NGA)	0.755	0.035

Source: Current Population Survey Annual Social and Economic Supplements: 2016, 2017, 2018 and Glassman (forthcoming).

Table 10: Correlations with Dimensions of the Multidimensional Poverty Measure

MRI compared to AAI	MRI	MOE	AAI	MOE	DIFF	MOE		ZSCORE
MDPM	0.711	0.042	0.821	0.039	-0.11	0.0264	*	6.8367
OPM	0.575	0.052	0.816	0.045	-0.24	0.029	*	13.6939
Health	0.312	0.058	0.561	0.061	-0.25	0.0318	*	12.8937
Education	0.718	0.045	0.764	0.047	-0.05	0.0246	*	3.0738
Economic_Security	0.539	0.053	0.762	0.049	-0.22	0.0284	*	12.9314
housing_quality	0.659	0.045	0.39	0.056	0.27	0.0308	*	14.3278
neighborhood_quality	0.33	0.049	0.42	0.052	-0.09	0.0255	*	5.803

RPP compared to AAI	RPP	MOE	AAI	MOE	DIFF	MOE		
MDPM	0.733	0.048	0.821	0.039	-0.09	0.046	*	3.15497
OPM	0.653	0.056	0.816	0.045	-0.16	0.0508	*	5.28532
Health	0.397	0.065	0.561	0.061	-0.16	0.0674	*	3.99796
Education	0.754	0.049	0.764	0.047	-0.01	0.0461		0.33568
Economic_Security	0.602	0.056	0.762	0.049	-0.16	0.0521	*	5.06457
housing_quality	0.581	0.051	0.39	0.056	0.19	0.0621	*	5.03996
neighborhood_quality	0.321	0.056	0.42	0.052	-0.1	0.0613	*	2.64878

FAR compared to AAI	FAR	MOE	AAI	MOE	DIFF	MOE		
MDPM	0.531	0.045	0.821	0.039	-0.29	0.0513	*	9.3113
OPM	0.303	0.052	0.816	0.045	-0.51	0.0571	*	14.7946
Health	0.067	0.057	0.561	0.061	-0.49	0.0695	*	11.7008
Education	0.55	0.047	0.764	0.047	-0.21	0.0529	*	6.6244
Economic_Security	0.301	0.051	0.762	0.049	-0.46	0.058	*	13.0806
housing_quality	0.839	0.033	0.39	0.056	0.45	0.0572	*	12.901
neighborhood_quality	0.195	0.048	0.42	0.052	-0.22	0.0613	*	6.0134

NGA comapred to AAI	NGA	MOE	AAI	MOE	DIFF	MOE		
MDPM	0.755	0.035	0.821	0.039	-0.07	0.0246	*	4.4225
OPM	0.917	0.03	0.816	0.045	0.1	0.0299	*	5.5397
Health	0.705	0.048	0.561	0.061	0.14	0.0276	*	8.5705
Education	0.712	0.038	0.764	0.047	-0.05	0.0267	*	3.1592
Economic_Security	0.8	0.04	0.762	0.049	0.04	0.0267	*	2.3161
housing_quality	-0.032	0.047	0.39	0.056	-0.42	0.035	*	19.811
neighborhood_quality	0.431	0.049	0.42	0.052	0.01	0.0206		0.9453

	Amenities index more highly correlated
	Other index more highly correlated
	Difference not statistically signficant

Source: Current Population Survey Annual Social and Economic Supplements: 2016,2017, 2018 and Glassmand (Forthcoming).