



## POLICY BRIEF

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### The Center for Opportunity Urbanism (COU) Standard of Living Index 2nd Annual Edition

December 2017

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#### 2017 COU Standard of Living Index

The [Center for Opportunity Urbanism](#) (COU) Standard of Living Index estimates the earnings necessary for an average standard of living for new movers to metropolitan areas. It assumes that these new residents would either rent the average priced apartment or purchase the average priced house, on typical terms, the percentages reflecting the share of owned and rented occupied units in the United States. Estimates are provided for the 107 metropolitan areas (cities) with more than 500,000 population. This is the second annual edition, and contains estimates for 2016.

In recent decades, the differential in costs of living between U.S. metropolitan areas have increased substantially. Much of this difference reflects a historical divergence in housing costs between metropolitan areas. Housing cost differentials have become so significant that in 2011 the Census Bureau began publishing the "Supplemental Poverty Measure," which adjusts poverty data for a single item of cost, rents. However, the substantial divergence between metropolitan areas in the costs of owned housing in are not reflected in data includes only rents.

The purpose of the COU Standard of Living Index is value the annual earnings for the average employee in each metropolitan area based on a cost of living measure that reflects variations from national costs reflecting both renting and house purchases (see: "Methodology Appendix").

The COU Standard of Living Index is also intended to provide corporate relocation professionals with comprehensive information on the cost of living competitiveness, which is an important consideration in comparing labor market<sup>1</sup> factors.

The leading cost of living index in the United States is the U.S. Department of Commerce, Bureau of Economic Analysis Regional Price Parities (RPPs) The latest edition of which provides 2015 data for the states and metropolitan areas. The first publication of RPPs occurred in 2008. The RPPs are divided into three cost categories, goods, rents and services other than rents. The BEA RPPs do not currently include the costs of owned housing, though eventually it is intended that this will be

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<sup>1</sup> Labor markets are metropolitan areas.

included.<sup>2</sup>The BEA RPPs, as adjusted for 2016, is referred to as the "Renter Cost of Living Index," The Renter Cost of Living Index is combined with the COU "Current Purchaser Cost of Living Index of Living Index, at weights that reflect the national rental and home ownership rate, to obtain the COU Composite Cost of Living Index.

This measure is used to adjust nominal pay per job in each metropolitan area to obtain "real" (cost of living adjusted) pay per job. The differences in real pay per job compared to the national average produce the standard of living variations and the COU Standard of Living Index for each metropolitan area.

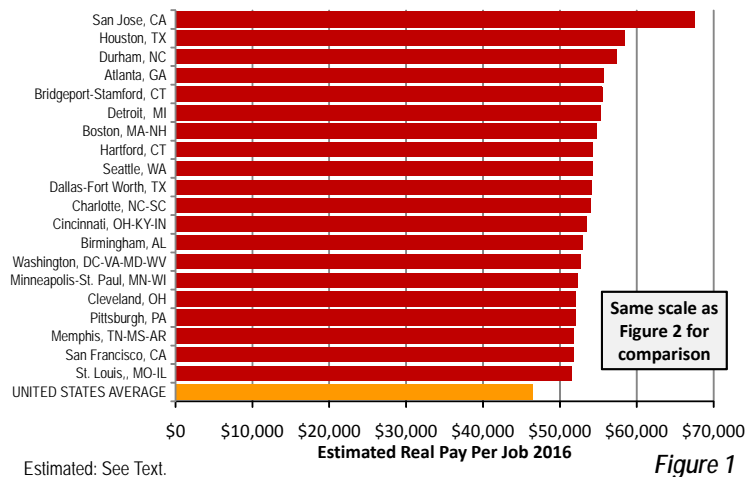
### Metropolitan Areas with the Highest and Lowest Standards of Living

Overall, the average pay per job in the United States was \$53,600. When adjusted by the COU Composite Cost of Living Index, the national pay per job is estimated at \$48,800.<sup>3</sup> This figure is considered the national average standard of living (a COU Standard of Living Index of 100.0).

**Metropolitan Areas with Highest COU Standard of Living Index:** San Jose has the highest cost of living adjusted pay per job among the 107 metropolitan areas (\$67,500). San Jose contains much of the Silicon Valley, the world's leading information technology hub. This pay per job indicates the highest standard of living, 39 percent above the national average of \$48,800.

Nonetheless, this is considerably below San Jose's average pay of \$116,900 before the cost of living adjustment. The difference between these two figures is principally the much higher cost of housing in San Jose, the least affordable major market in the United States and rated as fifth least affordable in the *Demographia International Housing Affordability Survey*.<sup>4</sup> Even so, San Jose holds the top position by a 13 percent margin or \$9,000 over second ranked Houston. This is by far the largest monetary difference between among the 107 metropolitan areas ranked (Figure 1). Detailed data is shown in Tables 1 and 2.

**COU Standard of Living Index: Top 20 METROPOLITAN AREAS OVER 500,000**



In contrast, Houston has an average real pay per job of \$58,400, where the average cost of living adjusted pay indicates a COU Standard of Living Index 20 percent above the national average of \$48,800. Durham, North Carolina, Atlanta

<sup>2</sup>Bettina Aten, Eric Figueroa and Troy Martin, "How can the American Community Survey (ACS) be used to improve the imputation of Owner-Occupied Rent Expenditures?," United States Department of Commerce, Bureau of Economic Analysis, 2011, [http://www.bea.gov/papers/pdf/WP\\_ACS\\_OORE\\_020112.pdf](http://www.bea.gov/papers/pdf/WP_ACS_OORE_020112.pdf).

<sup>3</sup>\$56,321 is adjusted by the COU "Current Purchaser Cost of Living Index (116.1) to obtain the \$46,410 standard of living benchmark. The Current Purchaser Cost of Living Index of living index is based on the BEA RPP of 100.0 (Renter Cost of Living Index).

<sup>4</sup>13th Annual Demographia International Housing Affordability Survey, <http://www.demographia.com/dhi.pdf>.

and Bridgeport – Stamford, Connecticut, which ranked as the third, fourth and fifth highest real pay per job and COU Standard of Living Index. Detroit ranks sixth, followed by Boston, Seattle, Hartford and Charlotte.

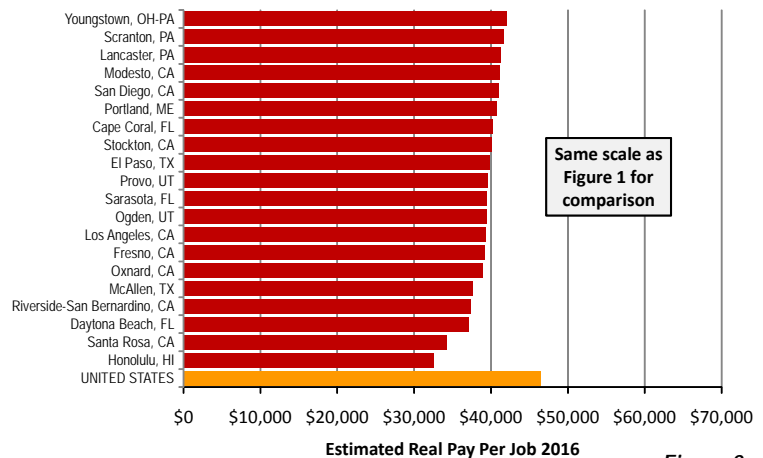
All but two of the top 20 cities have more than 1 million population, while Durham and Bridgeport-Stamford have populations between 500,000 and 1,000,000. Ten of the top 20 cities are in the South, 4 in the Midwest and three each in the Northeast and West.

There have been only modest changes in the rankings of the most affluent metropolitan over the past year. The top three, San Jose, Houston and Durham, remain the same as last year. Atlanta moved from seventh most affluent to fourth, trading places with Bridgeport-Stamford, now ranked fifth. There were other changes in the second five top metropolitan areas. However, despite the ranking changes, the 10 most affluent urban areas included the same metropolitan areas as in 2015.

**Metropolitan Areas with Lowest COU Standard of Living Index:** Honolulu has the lowest cost of living adjusted pay per job, at \$32,000 per job. Honolulu's COU Standard of Living Index is approximately 33 percent below the national average of \$48,800. Honolulu, is joined by all three metropolitan areas in the Los Angeles combined statistical area<sup>5</sup> (Los Angeles, Riverside-San Bernardino and Oxnard), as well as Ogden (UT), Fresno (CA) and Santa Rosa (CA). McAllen (TX), Daytona Beach (FL), McAllen (TX) and Sarasota (FL) are the only metropolitan areas in the bottom ten from outside the West (Figure 2).

Honolulu and Santa Rosa were ranked with the lowest pay per job and COU Standard of Living Index for the second straight year. Daytona Beach fell to third least affluent from fourth place last year, while Riverside-San Bernardino from fifth least affluent to fourth. McAllen, ranked third least affluent in 2015, improved to fifth least affluent. There was one new entrant to the 10 least affluent metropolitan areas, Sarasota, which replaced El Paso.

**COU Standard of Living Index: Bottom 20 METROPOLITAN AREAS OVER 500,000**



Estimated: See Text.

Figure 2

### The Widening Cost of Living Differences Between Metropolitan Areas

The cost of housing represents the largest difference in the cost of living between U.S. metropolitan areas.

<sup>5</sup> A combined statistical area is a broader metropolitan area consisting of adjacent metropolitan areas that meet commuting criteria established by the Office of Management and Budget.

For example, the highest cost metropolitan areas had an overall cost of living index for renters' 46 percent higher than the lowest cost metropolitan area among the 107 with more than 500,000 population. The differences in goods (22 percent) and services other than rents (32 percent) are smaller. These are dwarfed by the costs of renting, which are 255 percent (Figure 3).

The cost differences are far greater for households purchasing the average priced house. The difference in the annual housing costs between the least and most expensive of the 107 metropolitan areas is 624percent, nearly 2.5 times the differences in rents. This drives the overall cost of living difference up to 124 percent between the least and most expensive metropolitan areas (Figure 4)

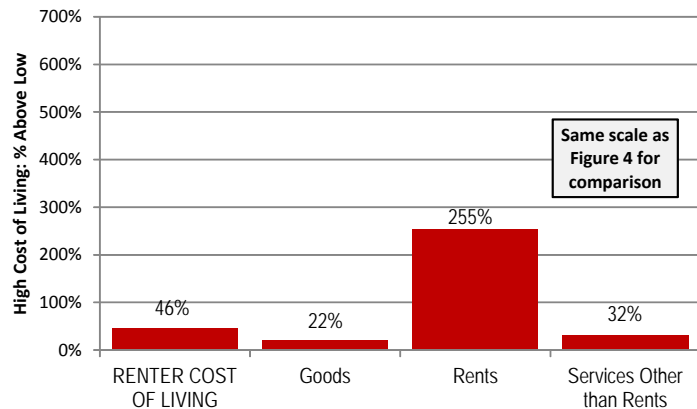
### House Prices Have Risen Far Faster than Rents

Further, housing costs have risen at a far more quickly than rents. In 1969, the highest rents were 107 percent above the lowest among the metropolitan areas. By 2016, this difference had risen to 134 percent, one-quarter above the 1969 figure. In 1969 the highest median house prices were 168 percent higher than in the lowest cost metropolitan area. By 2016, the difference had climbed to 557 percent, more than four times the range in rents (Figure 5).

### The Disparate Costs of Aspiration

There is considerable concern about the increasing financial challenges faced by middle-income households. Further, it is broadly accepted that income and wealth inequality are increasing. Research indicates that the increased inequality largely reflects an acceleration of inequality in housing wealth.<sup>6</sup> These are issues of concern not only to households and corporate relocation professionals, but also those charged with creating public policy. The COU Standard of Living

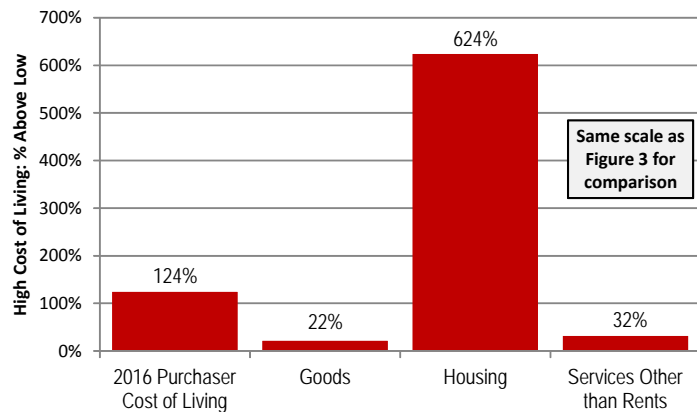
**Cost of Living Range: Renter (2015)**  
107 METROPOLITAN AREAS OVER 500,000



Estimated from Bureau of Economic Analysis data.

Figure 3

**Cost of Living Range: 2016 House Purchase**  
107 METROPOLITAN AREAS OVER 500,000



Derived from Bureau of Economic Analysis & American Community Survey

Figure 4

<sup>6</sup> See, for example Matthew Rognlie (2014). "A Note on Piketty and Diminishing Returns to Capital," <http://gabriel-zucman.eu/files/teaching/Rognlie14.pdf>.

Index provides data for evaluating cost of living trends, that have become much wider between U.S. metropolitan areas in recent years.

The COU Composite Cost of Living Index, which includes the cost of a currently purchased average priced house, can be used to measure the relative ease or difficulty of moving from renting to home ownership for households in the nation's largest metropolitan areas. This is indicated by the difference between the COU Composite Cost of Living Index and the BEA RPP Renter Cost of Living Index. Americans have long indicated a strong preference for home ownership.

Moreover, the standard of living has been inextricably intertwined with home ownership for decades. The most recent data indicates that home ownership has begun again to increase, and home ownership is now "... statistically no different than the average rate of 64.3% since 1964 (excludes bubble years)," according to Edward J. Pinto and Robert Norbert of the American Enterprise Institute.<sup>7</sup>

Yet the growing gap between the costs of renting and buying are making it much more difficult for households aspiring to become home owners, particularly in prohibitive cost areas. This is indicated by Figure 6, which shows the estimated difference in costs between average rents and average currently purchased houses. On average, it is estimated that purchasing a new or existing house in 2016 increases monthly costs 16 percent. The maximum cost difference is estimated at 61 percent (San Jose), while the minimum is estimated at five percent (Lakeland, FL). In 75 (70 percent) of the 107 metropolitan areas, the cost differential between renting and a current house purchase is less than the 16 percent average.

### Evolution of Housing Values & Rents 53 MAJOR METROPOLITAN AREAS: 1969-2016

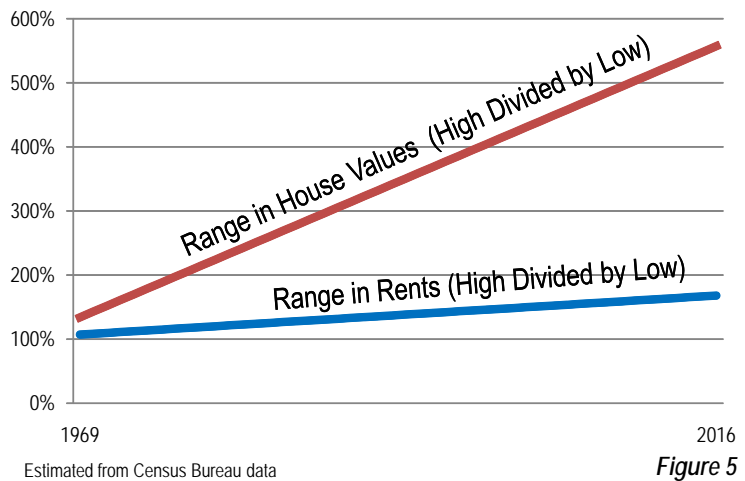
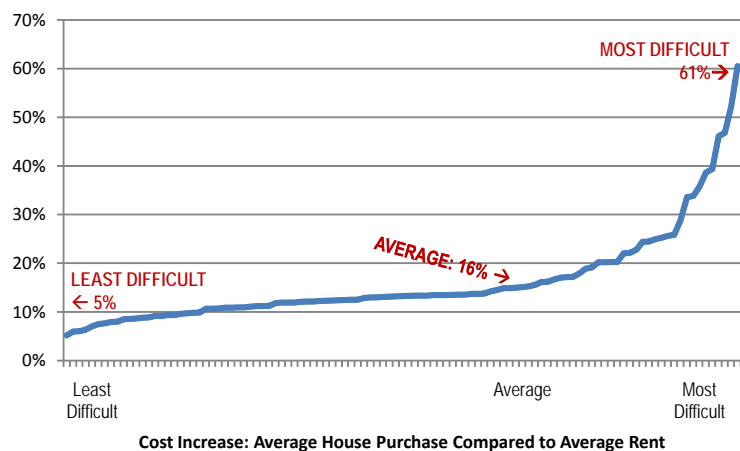


Figure 5

### Difficulty of Rent-to-Buy Transition: 2016 107 METROPOLITAN AREAS OVER 500,000 POPULATION



Estimated: See Text.

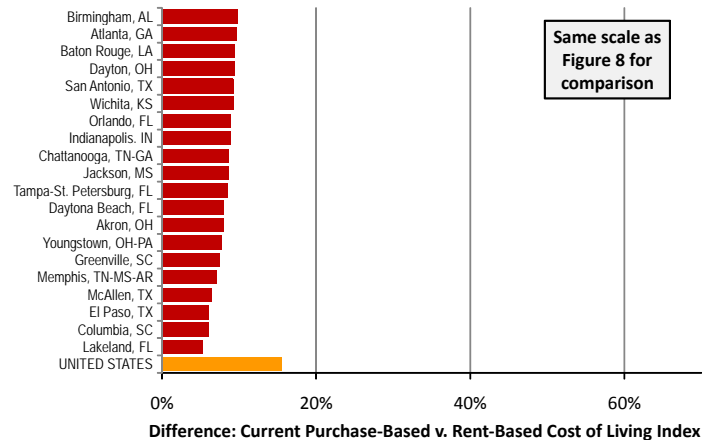
Figure 6

<sup>7</sup>Edward J. Pinto and Norbert Michel (2017), *AEI Ideas*, American Enterprise Institute, <https://www.aei.org/publication/a-duopsony-built-around-rent-seeking/>

**Greatest Ease in Transitioning from Renting to Ownership:** The 20 metropolitan areas in which the COU Current Purchaser Cost of Living Indexes lowest relative to the COU Renter Cost of Living Index are indicated in Figure 7. The greatest ease in the rent-to-owner transition is in Lakeland (FL) where the Composite Cost of Living Index is five percent higher than the Renter Cost of Living Index. Columbia (SC), El Paso(TX), McAllen (TX) and Memphis (TN-MS-AR) round out the top five.

The 20 metropolitan areas with the easiest transition to ownership also includes 13 with between 500,000 and 1,000,000: Lakeland, Columbia, El Paso, McAllen, Greenville (SC), Youngstown (OH-PA), Akron (OH), Daytona Beach, Jackson (MS), Chattanooga (TN-GA), Wichita (KS), Dayton (OH) and Baton Rouge (LA). The list also includes seven metropolitan areas with populations over 1,000,000: Memphis, Tampa-St. Petersburg, Indianapolis, Orlando, San Antonio, Atlanta, and Birmingham. In each of these metropolitan areas the transition from renting to buying is at least one-third below the national average of 16 percent.

### Ease of Rent to Ownership Transition LEAST CHALLENGING 20 METROPOLITAN AREAS



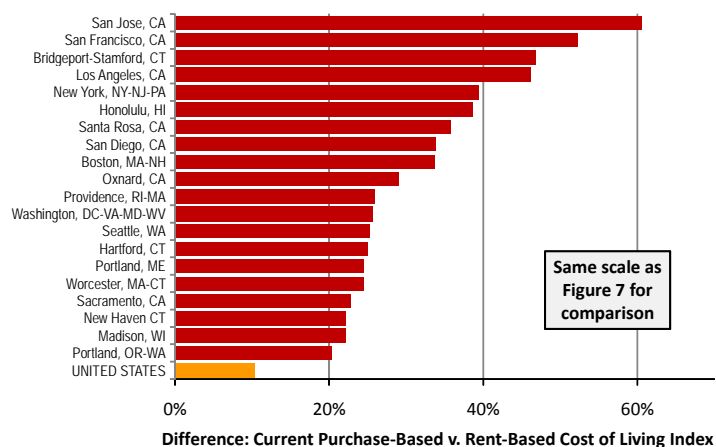
Estimated: See Text.

Figure 7

**Greatest Difficulty in Transitioning from Renting to Ownership:** The 20 metropolitan areas in which transitioning from renting to buying is most difficult are indicated in Figure 8. The largest rent-to-buy gap is in San Jose, where the Current Purchaser Cost of Living Index is 61percent above the Renter Cost of Living Index. San Francisco is the second most difficult metropolitan area for transitioning from renting to buying, at 52 percent, followed by Bridgeport-Stamford (47 percent) and Los Angeles, at 46percent.

The gap between the Current Purchaser Cost of Living Index of Living Index and the Renter Cost of Living Index is between 30 and 40 percent in New York, Honolulu, Santa Rosa (CA), San Diego and Boston. In all the 20 most difficult metropolitan areas, the rent-to-buy gap exceeds the national average by at least 30 percent.

### Difficulty of Rent to Ownership Transition 20 MOST CHALLENGING METROPOLITAN AREAS



Estimated: See Text.

Figure 8

The 20 metropolitan areas in which transition from renting to buying is most onerous includes 8 with between 500,000 and 1,000,000

population: Bridgeport, Honolulu, Santa Rosa, Oxnard, Portland (ME), Worcester, New Haven (CT) and Madison (WI). There are also 12 metropolitan areas with populations over 1,000,000: San Francisco, San Jose, Los Angeles, New York, San Diego, Boston, Providence, Washington, Seattle, Hartford, Sacramento and Portland (OR). In each of these metropolitan areas the transition from renting to buying is at least 30 percent higher the national average of 16 percent.

## A Changing Geography of Opportunity

The cost of living has emerged as a major factor in net domestic migration between the nation's metropolitan areas. Households moving within the United States are drawn to areas with lower costs of living, as is indicated in Figure 9.

Between 2010 and 2016, there was a net domestic migration loss of 1,477,000 residents from the metropolitan areas with higher than average COU Composite Costs of Living (109.8). In contrast, there was net domestic migration gain of 2,043,000 to the metropolitan areas with lower than average costs of living.<sup>8</sup> In addition, the rate of domestic migration tends to be higher where the cost of living is lower (as measured by the COU Composite Cost of Living Index). Table 3 provides a summary of the domestic migration data as related to the cost of living. This finding, that people are moving generally to lower cost areas from higher cost areas is consistent with the research findings of various academic studies.<sup>9</sup>

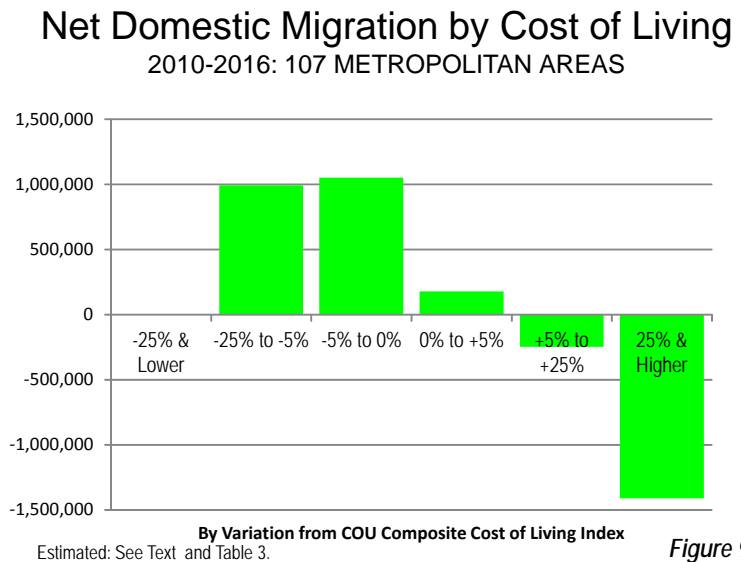


Figure 9

## Methodology Appendix

The COU Standard of Living Index rates the nation's 107 metropolitan areas (cities) with more than 500,000 population based on average pay per job adjusted for the cost of living.

Pay per Job data is from the US Department of Labor Bureau of Labor Statistics for 2016, which is adjusted for metropolitan area cost of living differences using the COU Composite Cost of Living Index, as follows.

<sup>8</sup> The balance, a net domestic migration loss of 566,000 was experienced in areas outside the 107 largest metropolitan areas.

<sup>9</sup> See, for example, Edward L Glaeser and Joseph Gyourko (2017), "The Economic Implications of Housing Supply, Samuel Zell and Robert Lurie Real Estate Center, University of Pennsylvania. <http://realestate.wharton.upenn.edu/research/papers.php?paper=802> and Peter Ganong and Daniel Shoag, "Why Has Regional Income Convergence in the U.S. Declined?" HKS Working Paper No. RWP12-028, 2013. [http://papers.ssrn.com/sol3/Delivery.cfm/SSRN\\_ID2241069\\_code1638787.pdf?abstractid=2081216&mirid=5](http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2241069_code1638787.pdf?abstractid=2081216&mirid=5).

(a) The cost of living for renters is based on the US Department of Commerce Bureau of Economic Analysis (BEA) Regional Price Parities for 2015. Relative weights are modeled for the three components (goods, rents and services other than rents) The rent component is adjusted in each metropolitan area for the change relative to the national average between 2015 and 2016 using rents (average gross rents), using American Community Survey data. In this calculation, the national rent weight is held constant, as are the weights for goods and other services. The result is the COU estimated "Renter Cost of Living Index" for 2016.

(b) The cost of living for current (2106) home purchasers is estimated by substituting ownership costs for the cost of renting, using American Community Survey data. It is assumed that the current home purchase involves an average priced house, with a down payment of 14 percent, financed by a 30-year fixed rate mortgage at 3.65 percent<sup>10</sup> interest with mortgage insurance. Other current home purchase costs such as insurance, real estate taxes and home owner association or condominium fees are estimated from the American Community Survey. The result is the COU estimated "Current Purchaser Cost of Living Index of Living Index" for 2016.

(c) The Renter Cost of Living Index and the Current Purchaser Cost of Living Index of Living Index are weighted based on the national distribution of 63.1 percent homeowners and 36.9 percent renters,<sup>11</sup> to estimate the COU Composite Cost of Living Index.<sup>12</sup>

(d) Real pay per job is obtained by dividing the nominal pay per job by the COU Composite Cost of Living Index. The national real pay per job is the national standard of living average.

(e) The COU Standard of Living Index is obtained by dividing the real pay per job by the national standard of living average.

The COU Composite Cost of Living Index is based on estimates of recurring monthly or annual expense, and does not include provision for down payments for owned houses or for "points" that are not included in monthly mortgage payments.

***There is more to the standard of living than money:*** The COU Standard of Living is offered with the realization that there is more to the standard of living than money. However, costs provide an objective measure of what households can buy. Moreover, much of middle-income America struggles to "make ends meet," and prices differences are important. As incomes rise, the standard of living may be determined to a lesser degree by income.

***Caveat and need for refinements:*** The COU Standard of Living Index is based on the COU Composite Cost of Living Index. The COU composite cost of living index is thus not a general cost of living index, but rather is focused on the need to comprehensively compare costs of living

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<sup>10</sup> 2016 annual rate from *30-Year Fixed-Rate Mortgages Since 1971*, Freddie Mac, <http://www.freddiemac.com/pmms/pmms30.html>.

<sup>11</sup> Calculated from the American Community Survey, 2016.

<sup>12</sup> The COU Composite Cost of Living does not measure the overall costs for households renting and buying, but rather households that rent and buy with typical purchase terms in the current year. An index indicating overall costs of home ownership, regardless of the home purchase date would indicate lower values and does not currently exist.



between metropolitan areas by households considering a geographical move and firms considering relocation.

It is likely that the actual cost of living is *underestimated* in some more expensive metropolitan areas. Neither BEA's cost of living index (RPPs) nor the COU Composite Cost of Living Index includes personal taxes, such as federal, state and local income taxes.<sup>13</sup> The federal income tax is progressive, such that higher rates are paid with higher incomes. This is also true of some state and local income taxes. As a result, residents in metropolitan areas with higher nominal average pay and prohibitive costs of living are likely to pay more in taxes, further discounting the value of their earnings. It is to be hoped that useful metrics will be developed that make even more reflective cost of living indexes possible.

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<sup>13</sup> Bureau of Economic Analysis, *Frequently Asked Questions: What is included in personal taxes?*  
[http://www.bea.gov/faq/index.cfm?faq\\_id=550](http://www.bea.gov/faq/index.cfm?faq_id=550)

Table 1

## COU Standard of Living Index: 2016

## Ranked by Highest Standard of Living

Metropolitan Areas over 500,000 Population

Rank (Out of 107)	Metropolitan Area	Real Pay per Job Adjusted by COU Composite Cost of Living Index (Table 2)	COU Standard of Living Index (Relative to National Average Standard of Living)
1	San Jose, CA	\$67,485	138.2
2	Houston, TX	\$58,401	119.6
3	Durham, NC	\$57,380	117.5
4	Atlanta, GA	\$55,631	113.9
5	Bridgeport-Stamford, CT	\$55,504	113.7
6	Detroit, MI	\$55,241	113.1
7	Boston, MA-NH	\$54,732	112.1
8	Hartford, CT	\$54,248	111.1
9	Seattle, WA	\$54,208	111.0
10	Dallas-Fort Worth, TX	\$54,082	110.8
11	Charlotte, NC-SC	\$54,027	110.6
12	Cincinnati, OH-KY-IN	\$53,490	109.5
13	Birmingham, AL	\$52,951	108.4
14	Washington, DC-VA-MD-WV	\$52,750	108.0
15	Minneapolis-St. Paul, MN-WI	\$52,303	107.1
16	Cleveland, OH	\$52,098	106.7
17	Pittsburgh, PA	\$52,018	106.5
18	Memphis, TN-MS-AR	\$51,788	106.1
19	San Francisco, CA	\$51,766	106.0
20	St. Louis,, MO-IL	\$51,510	105.5
21	Des Moines, IA	\$51,468	105.4
22	Nashville, TN	\$51,396	105.3
23	Austin, TX	\$51,359	105.2
24	Fayetteville, AR-MO	\$51,113	104.7
25	Denver, CO	\$51,103	104.7
26	Raleigh, NC	\$51,030	104.5
27	Columbus, OH	\$50,731	103.9
28	Chicago, IL-IN-WI	\$50,618	103.7
29	Kansas City, MO-KS	\$50,565	103.5
30	Baton Rouge, LA	\$50,540	103.5
31	Philadelphia, PA-NJ-DE-MD	\$50,448	103.3
32	Indianapolis, IN	\$49,893	102.2
33	Louisville, KY-IN	\$49,254	100.9
34	Akron, OH	\$49,033	100.4

35	Richmond, VA	\$48,782	99.9
36	Knoxville, TN	\$48,686	99.7
37	Harrisburg, PA	\$48,340	99.0
38	Phoenix, AZ	\$48,244	98.8
39	Tulsa, OK	\$48,188	98.7
40	Dayton, OH	\$48,187	98.7
41	Albany, NY	\$48,139	98.6
42	New York, NY-NJ-PA	\$47,974	98.2
43	Portland, OR-WA	\$47,958	98.2
44	Baltimore, MD	\$47,914	98.1
45	Augusta, GA-SC	\$47,896	98.1
46	New Orleans, LA	\$47,775	97.8
47	Sacramento, CA	\$47,627	97.5
48	Oklahoma City, OK	\$47,543	97.4
49	Milwaukee, WI	\$47,493	97.3
50	Toledo, OH	\$47,365	97.0
51	Winston-Salem, NC	\$47,217	96.7
52	Chattanooga, TN-GA	\$47,194	96.6
53	San Antonio, TX	\$46,926	96.1
54	Omaha, NE-IA	\$46,909	96.1
55	Melbourne, FL	\$46,538	95.3
56	Jacksonville, FL	\$46,534	95.3
57	Lexington-Fayette, KY	\$46,459	95.1
58	Little Rock, AR	\$46,407	95.0
59	Wichita, KS	\$46,294	94.8
60	Greenville, SC	\$46,121	94.4
61	Salt Lake City, UT	\$46,074	94.4
62	Syracuse, NY	\$46,056	94.3
63	Madison, WI	\$45,985	94.2
64	Columbia, SC	\$45,919	94.0
65	Rochester, NY	\$45,646	93.5
66	Buffalo, NY	\$45,624	93.4
67	Greensboro, NC	\$45,524	93.2
68	Grand Rapids, MI	\$45,308	92.8
69	Tampa-St. Petersburg, FL	\$44,998	92.1
70	Allentown, PA-NJ	\$44,895	91.9
71	Jackson, MS	\$44,248	90.6
72	Las Vegas, NV	\$44,155	90.4
73	Worcester, MA-CT	\$43,630	89.3
74	Colorado Springs, CO	\$43,554	89.2
75	New Haven CT	\$43,447	89.0
76	Orlando, FL	\$43,424	88.9
77	Providence, RI-MA	\$43,375	88.8

78	Charleston, SC	\$43,370	88.8
79	Springfield, MA	\$43,229	88.5
80	Spokane, WA	\$42,944	87.9
81	Virginia Beach-Norfolk, VA-NC	\$42,778	87.6
82	Tucson, AZ	\$42,345	86.7
83	Miami, FL	\$42,249	86.5
84	Boise, ID	\$42,114	86.2
85	Lakeland, FL	\$42,029	86.1
86	Bakersfield, CA	\$42,006	86.0
87	Albuquerque, NM	\$42,004	86.0
88	Youngstown, OH-PA	\$41,969	85.9
89	Scranton, PA	\$41,587	85.2
90	Lancaster, PA	\$41,262	84.5
91	Modesto, CA	\$41,103	84.2
92	San Diego, CA	\$40,977	83.9
93	Portland, ME	\$40,795	83.5
94	Cape Coral, FL	\$40,266	82.5
95	Stockton, CA	\$40,081	82.1
96	El Paso, TX	\$39,814	81.5
97	Provo, UT	\$39,603	81.1
98	Sarasota, FL	\$39,502	80.9
99	Ogden, UT	\$39,471	80.8
100	Los Angeles, CA	\$39,286	80.5
101	Fresno, CA	\$39,117	80.1
102	Oxnard, CA	\$38,856	79.6
103	McAllen, TX	\$37,648	77.1
104	Riverside-San Bernardino, CA	\$37,407	76.6
105	Daytona Beach, FL	\$37,146	76.1
106	Santa Rosa, CA	\$34,244	70.1
107	Honolulu, HI	\$32,532	66.6
	NATIONAL AVERAGE	\$48,832	100.0

Table 2

## COU Standard of Living Index: 2016

## Alphabetical Listing

1,000,000+ Metropolitan Areas, Followed by 500,000 - 1,000,000 Metropolitan Areas

Rank (Out of 107)	Rank out of 53 with More Than 1,000,000 Population	Metropolitan Area	Real Pay per Job Adjusted by COU Composite Cost of Living Index	COU Standard of Living Index (Relative to National Average Standard of Living)	2016 COU Composite Cost of Living Index	BLS Nominal Pay per Job 2016
<b>METROPOLITAN AREAS WITH OVER 1,000,000 POPULATION</b>						
4	3	Atlanta, GA	\$55,631	113.9	102.3	\$56,912
23	20	Austin, TX	\$51,359	105.2	111.7	\$57,349
44	33	Baltimore, MD	\$47,914	98.1	119.1	\$57,083
13	11	Birmingham, AL	\$52,951	108.4	94.7	\$50,146
7	5	Boston, MA-NH	\$54,732	112.1	133.5	\$73,069
66	42	Buffalo, NY	\$45,624	93.4	101.2	\$46,190
11	9	Charlotte, NC-SC	\$54,027	110.6	100.5	\$54,299
28	24	Chicago, IL-IN-WI	\$50,618	103.7	117.2	\$59,315
12	10	Cincinnati, OH-KY-IN	\$53,490	109.5	96.9	\$51,836
16	14	Cleveland, OH	\$52,098	106.7	97.0	\$50,523
27	23	Columbus, OH	\$50,731	103.9	100.7	\$51,106
10	8	Dallas-Fort Worth, TX	\$54,082	110.8	108.5	\$58,677
25	21	Denver, CO	\$51,103	104.7	118.3	\$60,436
6	4	Detroit, MI	\$55,241	113.1	103.3	\$57,039
68	43	Grand Rapids, MI	\$45,308	92.8	100.9	\$45,698
8	6	Hartford, CT	\$54,248	111.1	115.7	\$62,753
2	2	Houston, TX	\$58,401	119.6	109.7	\$64,055
32	27	Indianapolis, IN	\$49,893	102.2	98.5	\$49,126
56	39	Jacksonville, FL	\$46,534	95.3	102.8	\$47,816
29	25	Kansas City, MO-KS	\$50,565	103.5	100.9	\$51,018
72	45	Las Vegas, NV	\$44,155	90.4	105.6	\$46,648
100	52	Los Angeles, CA	\$39,286	80.5	152.4	\$59,889
33	28	Louisville, KY-IN	\$49,254	100.9	98.4	\$48,446
18	16	Memphis, TN-MS-AR	\$51,788	106.1	96.0	\$49,704
83	50	Miami, FL	\$42,249	86.5	120.4	\$50,853
49	37	Milwaukee, WI	\$47,493	97.3	107.3	\$50,959
15	13	Minneapolis-St. Paul, MN-WI	\$52,303	107.1	112.8	\$59,005
22	19	Nashville, TN	\$51,396	105.3	102.0	\$52,425
46	34	New Orleans, LA	\$47,775	97.8	103.5	\$49,429
42	31	New York, NY-NJ-PA	\$47,974	98.2	152.4	\$73,132
48	36	Oklahoma City, OK	\$47,543	97.4	98.1	\$46,628
76	46	Orlando, FL	\$43,424	88.9	103.4	\$44,909
31	26	Philadelphia, PA-NJ-DE-MD	\$50,448	103.3	117.7	\$59,358
38	30	Phoenix, AZ	\$48,244	98.8	105.1	\$50,727
17	15	Pittsburgh, PA	\$52,018	106.5	101.5	\$52,799
43	32	Portland, OR-WA	\$47,958	98.2	116.1	\$55,660
77	47	Providence, RI-MA	\$43,375	88.8	115.1	\$49,931
26	22	Raleigh, NC	\$51,030	104.5	103.2	\$52,682
35	29	Richmond, VA	\$48,782	99.9	103.6	\$50,523
104	53	Riverside-San Bernardino, CA	\$37,407	76.6	117.2	\$43,827
65	41	Rochester, NY	\$45,646	93.5	104.4	\$47,672
47	35	Sacramento, CA	\$47,627	97.5	117.6	\$56,018
20	18	St. Louis, MO-IL	\$51,510	105.5	97.9	\$50,428
61	40	Salt Lake City, UT	\$46,074	94.4	110.4	\$50,888
53	38	San Antonio, TX	\$46,926	96.1	100.0	\$46,903
92	51	San Diego, CA	\$40,977	83.9	142.0	\$58,198
19	17	San Francisco, CA	\$51,766	106.0	164.6	\$85,222
1	1	San Jose, CA	\$67,485	138.2	173.2	\$116,868
9	7	Seattle, WA	\$54,208	111.0	127.9	\$69,344
69	44	Tampa-St. Petersburg, FL	\$44,998	92.1	106.5	\$47,921

82	49	Tucson, AZ	\$42,345	86.7	103.8	\$43,946
81	48	Virginia Beach-Norfolk, VA-NC	\$42,778	87.6	105.7	\$45,236
14	12	Washington, DC-VA-MD-WV	\$52,750	108.0	137.4	\$72,492
<b>METROPOLITAN AREAS WITH 500,000 TO 1,000,000 POPULATION</b>						
34		Akron, OH	\$49,033	100.4	95.3	\$46,723
41		Albany, NY	\$48,139	98.6	109.7	\$52,820
87		Albuquerque, NM	\$42,004	86.0	105.5	\$44,298
70		Allentown, PA-NJ	\$44,895	91.9	109.2	\$49,013
45		Augusta, GA-SC	\$47,896	98.1	93.4	\$44,719
86		Bakersfield, CA	\$42,006	86.0	105.1	\$44,153
30		Baton Rouge, LA	\$50,540	103.5	98.4	\$49,733
84		Boise, ID	\$42,114	86.2	102.7	\$43,254
5		Bridgeport-Stamford, CT	\$55,504	113.7	154.3	\$85,625
94		Cape Coral, FL	\$40,266	82.5	104.0	\$41,884
78		Charleston, SC	\$43,370	88.8	106.3	\$46,083
52		Chattanooga, TN-GA	\$47,194	96.6	95.6	\$45,107
74		Colorado Springs, CO	\$43,554	89.2	107.7	\$46,901
64		Columbia, SC	\$45,919	94.0	95.3	\$43,750
40		Dayton, OH	\$48,187	98.7	95.6	\$46,044
105		Daytona Beach, FL	\$37,146	76.1	100.4	\$37,294
21		Des Moines, IA	\$51,468	105.4	102.9	\$52,941
3		Durham, NC	\$57,380	117.5	104.5	\$59,974
96		El Paso, TX	\$39,814	81.5	93.0	\$37,044
24		Fayetteville, AR-MO	\$51,113	104.7	96.0	\$49,049
101		Fresno, CA	\$39,117	80.1	106.8	\$41,761
67		Greensboro, NC	\$45,524	93.2	95.2	\$43,359
60		Greenville, SC	\$46,121	94.4	94.7	\$43,694
37		Harrisburg, PA	\$48,340	99.0	102.6	\$49,620
107		Honolulu, HI	\$32,532	66.6	154.3	\$50,197
71		Jackson, MS	\$44,248	90.6	95.0	\$42,033
36		Knoxville, TN	\$48,686	99.7	96.3	\$46,879
85		Lakeland, FL	\$42,029	86.1	95.8	\$40,245
90		Lancaster, PA	\$41,262	84.5	106.7	\$44,012
57		Lexington-Fayette, KY	\$46,459	95.1	99.9	\$46,428
58		Little Rock, AR	\$46,407	95.0	96.5	\$44,766
63		Madison, WI	\$45,985	94.2	111.1	\$51,082
103		McAllen, TX	\$37,648	77.1	87.6	\$32,995
55		Melbourne, FL	\$46,538	95.3	100.5	\$46,778
91		Modesto, CA	\$41,103	84.2	108.7	\$44,674
75		New Haven CT	\$43,447	89.0	127.0	\$55,158
99		Ogden, UT	\$39,471	80.8	103.6	\$40,912
54		Omaha, NE-IA	\$46,909	96.1	101.1	\$47,447
102		Oxnard, CA	\$38,856	79.6	138.0	\$53,614
93		Portland, ME	\$40,795	83.5	115.4	\$47,057
97		Provo, UT	\$39,603	81.1	107.4	\$42,552
106		Santa Rosa, CA	\$34,244	70.1	146.9	\$50,297
98		Sarasota, FL	\$39,502	80.9	107.5	\$42,480
89		Scranton, PA	\$41,587	85.2	98.8	\$41,082
80		Spokane, WA	\$42,944	87.9	103.4	\$44,397
79		Springfield, MA	\$43,229	88.5	109.2	\$47,208
95		Stockton, CA	\$40,081	82.1	110.8	\$44,408
62		Syracuse, NY	\$46,056	94.3	102.9	\$47,389
50		Toledo, OH	\$47,365	97.0	94.9	\$44,947
39		Tulsa, OK	\$48,188	98.7	96.5	\$46,482
59		Wichita, KS	\$46,294	94.8	95.5	\$44,227
51		Winston-Salem, NC	\$47,217	96.7	95.1	\$44,924
73		Worcester, MA-CT	\$43,630	89.3	118.4	\$51,643
88		Youngstown, OH-PA	\$41,969	85.9	92.0	\$38,607
		NATIONAL AVERAGE	\$48,832	100.0	109.8	\$53,621

Table 3

Net Domestic Migration by COU Composite Cost of Living Index

Cost of Living Index Compared to COU Composite Cost of Living Index	Net Domestic Migration	% of 2010 Population	Count
-25% & Lower			0
-25% to -5%	992,000	1.5%	56
-5% to 0%	1,051,000	3.0%	21
0% to +5%	178,000	2.0%	6
+5% to +25%	(246,000)	-0.5%	14
25% & Higher	(1,409,000)	-2.8%	10
Total: 107 Metropolitan Areas	566,000	0.3%	107