

Technical Note

Source Update for County Recorder Data and Its Impact on FHFA HPI®

The Federal Housing Finance Agency (FHFA) first introduced the Expanded-Data House Price Indexes (ED HPI) in the second quarter of 2011. The intent of the ED HPI is to reflect price trends in the broader housing markets rather than only the houses purchased with Fannie Mae and Freddie Mac (the Enterprises) financing.¹ The ED HPI are produced using three data sources:

- Information on mortgages that the Enterprises purchase or securitize;
- Information on mortgage transactions that the Federal Housing Administration (FHA) backs; and
- Sales price information from county recorder offices.

FHFA receives information on mortgages purchased by the Enterprises and FHA directly from those organizations. FHFA licenses county recorder office data from an external data vendor.

FHFA's previous external data vendor license expired in July 2023. A new licensing contract was awarded in the same month. The third quarter of 2023 is the first quarter that FHFA estimated the ED HPI using the newly licensed data. The aggregate impact of the change in the licensed data on the ED HPI was minimal at the national and census division levels. However, some lower-level geographies changed more significantly primarily because of greater geographic coverage and increased volume of recorded transactions. This Technical Note outlines the nature of the data update and summarizes the impact of the update on the ED HPI. The following is organized as a series of key questions and answers related to the change in licensed data used to compute the indexes.

What are the data sources FHFA uses in the FHFA HPI®, and what is the significance of county recorder data?

Conventional mortgages that the Enterprises purchase or securitize continue to form the primary basis for most FHFA HPIs such as the monthly and quarterly Purchase-Only and All-Transactions indexes. However, the intent of the ED HPI is to capture a broader representation of price movement for all single-family homes. This is accomplished by augmenting the house price data from the Enterprises with price data from FHA and county recorders. For example, county recorder data include housing transactions involving non-conforming loans and cash purchases which are not included in the Enterprises' data. Consequently, the expanded dataset

¹ FHFA released the ED HPI in 2011Q2 along with a Highlights article at https://www.fhfa.gov/DataTools/Downloads/Documents/HPI_Focus_Pieces/2011Q2_HPIFocus_N508.pdf

more than doubles the number of sales transactions compared to the Enterprise data alone, and also incorporates transactions for housing market segments not served by the Enterprises.

How does the new county recorder data source differ from the previous one?

The basic nature of the data remains the same with both datasets containing real estate sales transactions that individual county offices recorded. However, the newly licensed county sales record data include significantly greater coverage than the previously used dataset. Data from 3,082 counties, representing 98 percent of all U.S. counties, are now used to compute the expanded data indexes. Previously data were only available for 1,000 counties. Figure 1A shows the map of all U.S. counties the previous source covered, whereas Figure 1B shows all counties covered in the updated source. Also, the new dataset adds many sales records from periods prior to 2000, providing denser and more consistent samples that allow the ED HPI to better capture earlier historical price trends.

How does the source update affect the ED HPI?

To test the impact of the data source change, FHFA calculated the ED HPI for the second quarter of 2023 using both the previous and new licensed datasets. All other data used in the calculations were kept the same.

FHFA observed modest changes for the national index and most regional-level indexes. Several states and metropolitan areas, however, had notable changes in the index series due to additional coverage within their respective geographical boundaries.

What is the effect of the source update on the National ED HPI?

Figure 2 displays the seasonally adjusted U.S. (national) index series for two series: the series FHFA published in August estimated with the previous county recorder data source (black solid line), and the test series with the newer source data (blue dotted line). The two series track each other very closely with differences in year-over-year changes no greater than 0.5 percentage points during the most recent five years. Looking at the entire time-series range, year-over-year changes differed by at most 0.8 percentage points in the first quarter of 2008 when the new rate showed a steeper decline than previously estimated. Average annualized house price appreciation, since the first quarter of 1991, was 4.26 percent since using the new data versus 4.22 percent using the previously licensed recorder data. Table 1 presents a comparison of the ED HPI, for the second quarter of 2023, based upon the previous and new county recorder datasets.

What is the effect of the source update on the state-level and metropolitan-level ED HPI? Why?

State-level and metropolitan-level indexes typically had larger revisions in the test results due to relatively greater exposure to coverage gains with the new county recorder data. While the aggregate net impact of using the new recorder data on the national index was small, 24 states

saw their index series revised upward while 26 states and the District of Columbia saw their index series revised downward. Table 2 summarizes the state-level revisions found from the test against the ED HPI published with the FHFA HPI report from the second quarter of 2023. Changes in index levels for this quarter remained within 10 percent in 48 states and the District of Columbia. Likewise, 47 out of 50 published metro areas had index level differences within 10 percent.

Florida and Hawaii are the two states with the largest index revisions, as the sample size for each increased significantly with the new data. For Florida, there were 11.4 million unique sales records when including the new data as compared to 7.5 million using the previously available data. Hawaii's sample size growth was even more pronounced, from 129,000 unique sales records using the previous data to 283,000 using the new data. Notably, within both state-level samples, sales transactions dated between 1975² and 1999 more than tripled with the updated data. As shown in Table 2, the last five-year index changes are very similar between test and published indexes for both states.

The implied revisions observed for the 50 metro-level index series were generally less significant than those found at the state level for Florida and Hawaii. Table 3 presents the results by metro area. Typically, these larger revisions can be attributed to one of the following reasons:

- Significant increase of observations for previously covered counties (e.g., Tampa-St. Petersburg-Clearwater, FL);
- Newly covered counties within the metro areas (e.g., Virginia Beach-Norfolk-Newport News, VA-NC); or
- Improved quality of existing data (e.g., Philadelphia, PA).

Apart from the ED HPI are there any other FHFA HPI indexes that the update impacts?

Most other indexes, such as monthly and quarterly Purchase-Only HPI and quarterly All-Transactions HPI, are not impacted by using the new data because they do not use county recorder data. The only other affected indexes are the Distress-Free Purchase-Only indexes. FHFA primarily bases these indexes on sales transactions data from the Enterprises but incorporates distress-sale flags from various sources including the county recorder data.³

² Although the ED HPI start from the beginning of 1991, FHFA constructs underlying samples for these repeat-sales indexes from home purchases going back as far as the beginning of 1975. FHFA does this to ensure an adequate statistical sample size and estimation robustness of the indexes starting in 1991 and beyond.

³ In 2024, FHFA will publish a Technical Note describing effects of the recorder data source update on Distress-Free Purchase-Only indexes.

What if I need to learn more about the update?

For more information or further questions on the source update, please contact HPIQuestions@fhfa.gov.

Figure 1A: Map of counties covered in the previous data source for country recorder data (colored in gray)

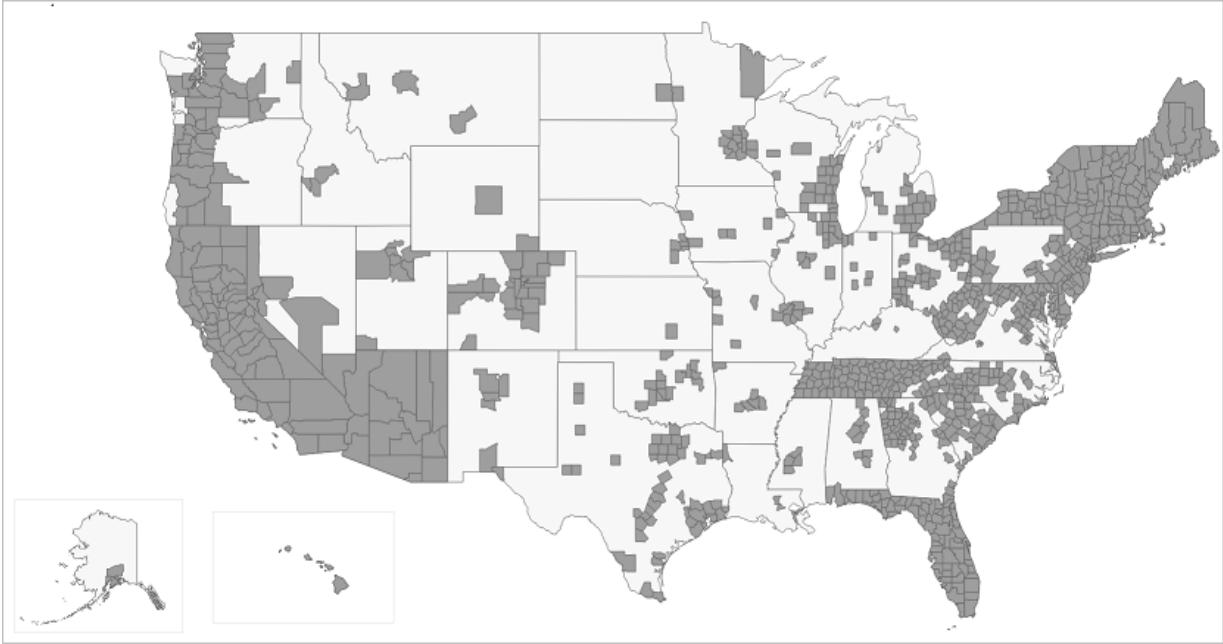


Figure 1B: Map of counties covered by the new data source for country recorder data (colored in blue)

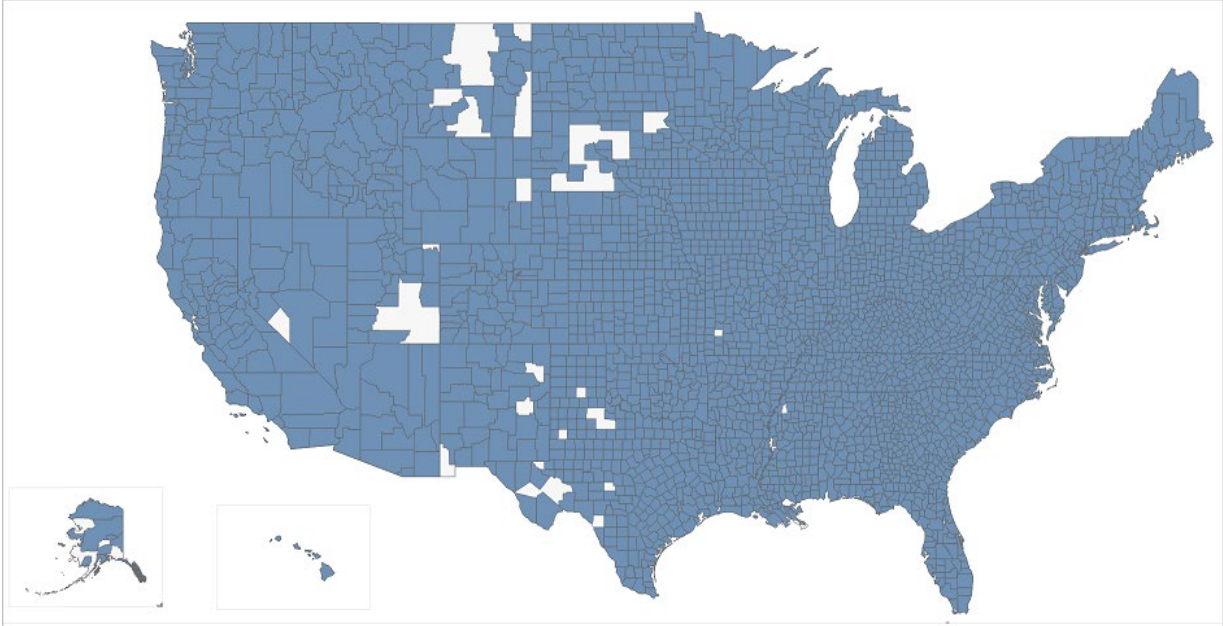


Figure 2: Test series using the new county recorder data source compared against the published series (United States, Seasonally Adjusted, 1991Q1=100)

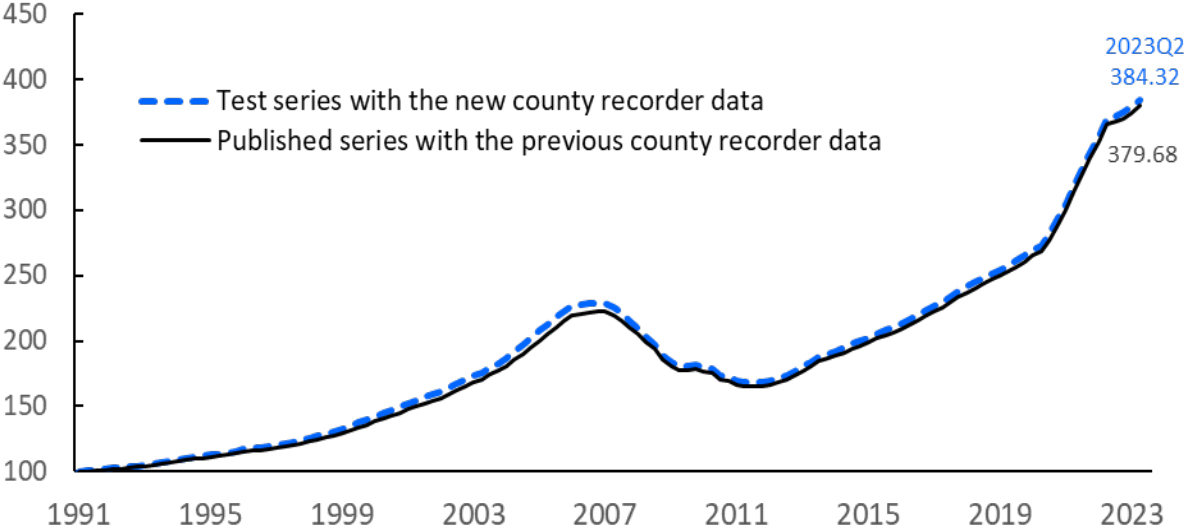


Table 1: Comparison of the Second Quarter 2023 published National ED HPI (computed using the previously licensed data) versus the test ED HPI (computed using the newly licensed data).

(United States, Seasonally Adjusted, 1991Q1=100)

Year	Quarter	US Index Published	US index Test with New Data	YoY% Published	YoY% Test with New Data	Difference in YoY% (percentage point)
1991	1	100.00	100.00			
1991	2	100.13	100.41			
1991	3	100.36	100.89			
1991	4	101.16	101.66			
1992	1	102.18	102.61	2.2	2.6	0.4
1992	2	102.15	102.93	2.0	2.5	0.5
1992	3	102.80	103.45	2.4	2.5	0.1
1992	4	103.73	104.35	2.5	2.7	0.1
1993	1	103.71	104.50	1.5	1.8	0.3
1993	2	104.82	105.54	2.6	2.5	-0.1
1993	3	105.67	106.57	2.8	3.0	0.2
1993	4	106.66	107.65	2.8	3.2	0.3
1994	1	107.79	108.70	3.9	4.0	0.1
1994	2	108.68	109.82	3.7	4.1	0.4
1994	3	109.62	110.79	3.7	4.0	0.2
1994	4	110.32	111.58	3.4	3.7	0.2
1995	1	111.11	112.60	3.1	3.6	0.5
1995	2	112.09	113.53	3.1	3.4	0.2
1995	3	113.23	114.62	3.3	3.5	0.2
1995	4	114.09	115.64	3.4	3.6	0.2
1996	1	114.95	116.77	3.5	3.7	0.2
1996	2	115.86	117.72	3.4	3.7	0.3
1996	3	116.57	118.56	3.0	3.4	0.5
1996	4	117.33	119.41	2.8	3.3	0.4
1997	1	118.23	120.46	2.9	3.2	0.3
1997	2	119.10	121.49	2.8	3.2	0.4
1997	3	120.09	122.62	3.0	3.4	0.4
1997	4	121.41	124.07	3.5	3.9	0.4
1998	1	122.87	125.58	3.9	4.2	0.3
1998	2	124.38	127.19	4.4	4.7	0.3
1998	3	125.93	128.90	4.9	5.1	0.3
1998	4	127.86	130.86	5.3	5.5	0.2
1999	1	129.74	132.90	5.6	5.8	0.2
1999	2	131.86	135.08	6.0	6.2	0.2
1999	3	133.73	137.21	6.2	6.4	0.3
1999	4	135.80	139.44	6.2	6.6	0.3
2000	1	138.37	141.97	6.6	6.8	0.2
2000	2	140.63	144.57	6.6	7.0	0.4
2000	3	142.78	146.99	6.8	7.1	0.4
2000	4	145.10	149.53	6.8	7.2	0.4
2001	1	147.55	152.18	6.6	7.2	0.5
2001	2	149.65	154.27	6.4	6.7	0.3
2001	3	151.94	156.64	6.4	6.6	0.1
2001	4	154.00	158.71	6.1	6.1	0.0
2002	1	156.34	161.29	6.0	6.0	0.0
2002	2	159.16	164.12	6.4	6.4	0.0

2002	3	162.01	167.14	6.6	6.7	0.1
2002	4	165.02	170.21	7.2	7.2	0.1
2003	1	167.94	173.09	7.4	7.3	-0.1
2003	2	170.64	175.79	7.2	7.1	-0.1
2003	3	173.95	179.10	7.4	7.2	-0.2
2003	4	177.73	182.92	7.7	7.5	-0.2
2004	1	180.87	187.20	7.7	8.2	0.4
2004	2	185.67	192.06	8.8	9.3	0.4
2004	3	190.10	196.82	9.3	9.9	0.6
2004	4	194.86	201.75	9.6	10.3	0.7
2005	1	200.29	207.74	10.7	11.0	0.2
2005	2	205.43	212.76	10.6	10.8	0.1
2005	3	210.65	218.05	10.8	10.8	0.0
2005	4	215.36	222.69	10.5	10.4	-0.1
2006	1	219.20	226.46	9.4	9.0	-0.4
2006	2	220.96	228.04	7.6	7.2	-0.4
2006	3	221.30	228.16	5.1	4.6	-0.4
2006	4	222.11	228.65	3.1	2.7	-0.5
2007	1	222.32	228.45	1.4	0.9	-0.5
2007	2	219.40	225.48	-0.7	-1.1	-0.4
2007	3	215.32	220.99	-2.7	-3.1	-0.4
2007	4	210.03	215.33	-5.4	-5.8	-0.4
2008	1	205.13	209.05	-7.7	-8.5	-0.8
2008	2	199.11	203.03	-9.2	-10.0	-0.7
2008	3	193.45	197.12	-10.2	-10.8	-0.6
2008	4	185.64	188.72	-11.6	-12.4	-0.7
2009	1	180.62	183.42	-11.9	-12.3	-0.3
2009	2	177.91	180.68	-10.6	-11.0	-0.4
2009	3	177.85	180.71	-8.1	-8.3	-0.3
2009	4	178.27	181.31	-4.0	-3.9	0.0
2010	1	176.24	179.38	-2.4	-2.2	0.2
2010	2	175.73	178.93	-1.2	-1.0	0.3
2010	3	170.65	173.35	-4.0	-4.1	0.0
2010	4	169.36	172.15	-5.0	-5.1	-0.1
2011	1	166.78	169.67	-5.4	-5.4	0.0
2011	2	165.05	167.93	-6.1	-6.1	-0.1
2011	3	165.33	168.10	-3.1	-3.0	0.1
2011	4	165.02	167.82	-2.6	-2.5	0.0
2012	1	166.33	169.30	-0.3	-0.2	0.0
2012	2	168.48	171.20	2.1	1.9	-0.1
2012	3	170.46	173.15	3.1	3.0	-0.1
2012	4	173.56	176.30	5.2	5.1	-0.1
2013	1	176.96	180.08	6.4	6.4	0.0
2013	2	180.73	183.70	7.3	7.3	0.0
2013	3	184.25	187.26	8.1	8.2	0.1
2013	4	186.38	189.68	7.4	7.6	0.2
2014	1	188.79	192.24	6.7	6.7	0.1
2014	2	191.13	194.69	5.8	6.0	0.2
2014	3	193.94	197.53	5.3	5.5	0.2
2014	4	196.26	199.94	5.3	5.4	0.1
2015	1	198.99	202.43	5.4	5.3	-0.1
2015	2	201.94	205.13	5.7	5.4	-0.3
2015	3	203.96	207.73	5.2	5.2	0.0
2015	4	206.56	210.32	5.2	5.2	-0.1
2016	1	209.50	213.42	5.3	5.4	0.1
2016	2	212.57	216.53	5.3	5.6	0.3

2016	3	215.78	219.64	5.8	5.7	-0.1
2016	4	219.13	223.12	6.1	6.1	0.0
2017	1	222.25	226.48	6.1	6.1	0.0
2017	2	225.79	230.04	6.2	6.2	0.0
2017	3	229.39	233.56	6.3	6.3	0.0
2017	4	233.29	237.47	6.5	6.4	0.0
2018	1	237.25	241.65	6.7	6.7	-0.1
2018	2	240.36	244.74	6.5	6.4	-0.1
2018	3	243.62	248.00	6.2	6.2	0.0
2018	4	246.83	251.31	5.8	5.8	0.0
2019	1	250.21	254.46	5.5	5.3	-0.2
2019	2	252.98	257.50	5.2	5.2	0.0
2019	3	256.38	260.93	5.2	5.2	0.0
2019	4	260.64	265.05	5.6	5.5	-0.1
2020	1	265.65	270.03	6.2	6.1	-0.1
2020	2	268.21	272.91	6.0	6.0	0.0
2020	3	277.04	281.70	8.1	8.0	-0.1
2020	4	289.20	293.81	11.0	10.8	-0.1
2021	1	299.88	304.52	12.9	12.8	-0.1
2021	2	313.21	317.75	16.8	16.4	-0.3
2021	3	328.00	332.22	18.4	17.9	-0.5
2021	4	340.03	344.15	17.6	17.1	-0.4
2022	1	352.64	356.92	17.6	17.2	-0.4
2022	2	365.37	369.56	16.7	16.3	-0.3
2022	3	367.60	372.17	12.1	12.0	-0.1
2022	4	369.84	374.59	8.8	8.8	0.1
2023	1	374.27	378.83	6.1	6.1	0.0
2023	2	379.68	384.32	3.9	4.0	0.1

Table 2: Comparison of the Second Quarter 2023 published State-Level ED HPI (computed using the previously licensed data) versus the test ED HPI (computed using the newly licensed data).

Seasonally Adjusted, 1991Q1=100)

State	Index level difference % (2023Q2)	5-year cumulative change% (2018Q2 to 2023Q2)		Cumulative change since 1991Q1%		Mean revision in YoY% changes (percentage point)
		Published	Test	Published	Test	
Alabama	-4.0	50.8	49.2	172.8	161.8	-0.2
Alaska	-0.4	37.4	37.1	257.3	255.7	0.0
Arizona	0.9	72.2	73.5	398.3	402.6	0.0
Arkansas	8.7	58.4	54.1	232.0	260.8	0.2
California	2.5	49.7	49.5	301.7	311.6	0.1
Colorado	3.1	54.2	53.0	553.4	573.9	0.0
Connecticut	-3.6	57.6	56.8	177.8	167.8	-0.1
Delaware	1.7	52.5	51.5	188.4	193.3	0.1
District of Columbia	-2.7	36.0	37.0	484.2	468.6	-0.2
Florida	12.8	77.9	77.9	364.7	424.0	0.4
Georgia	2.4	72.6	69.8	255.4	263.9	0.1
Hawaii	34.1	51.6	54.7	367.9	527.4	0.9
Idaho	0.9	92.4	92.4	507.2	512.6	0.0
Illinois	2.1	43.1	43.0	160.6	166.1	0.1
Indiana	-7.8	64.2	65.5	222.2	197.1	-0.3
Iowa	-5.0	42.7	40.0	251.3	233.7	-0.2
Kansas	8.0	54.0	55.6	262.6	291.8	0.2
Kentucky	-3.5	53.0	48.7	230.6	219.2	-0.2
Louisiana	-4.4	31.9	29.2	227.9	213.3	-0.1
Maine	-2.0	75.9	75.3	317.2	309.0	0.0
Maryland	-0.3	44.9	44.5	206.9	205.9	0.0
Massachusetts	-2.0	52.0	51.3	352.9	343.9	-0.1
Michigan	-0.9	57.9	58.2	218.1	215.4	0.0
Minnesota	3.1	45.7	42.1	297.1	309.4	0.1
Mississippi	-4.0	50.4	50.3	191.8	180.0	-0.1
Missouri	-5.2	59.2	58.2	236.8	219.2	-0.2
Montana	-0.5	75.8	75.4	584.2	580.9	0.0
Nebraska	-4.9	52.9	51.4	309.7	289.8	-0.2
Nevada	4.2	51.8	52.1	267.7	283.0	0.0
New Hampshire	-2.6	65.8	62.7	295.6	285.3	-0.1
New Jersey	1.1	63.8	64.9	232.1	235.9	0.0
New Mexico	-3.4	60.1	61.4	285.3	272.2	-0.1
New York	7.2	55.1	54.5	230.4	254.4	0.2
North Carolina	2.7	72.3	68.6	272.9	283.1	0.1

North Dakota	-8.6	29.8	29.2	358.5	319.0	-0.3
Ohio	-1.7	59.4	58.9	189.4	184.5	0.0
Oklahoma	2.2	50.3	49.8	236.1	243.5	0.1
Oregon	1.8	49.4	50.6	546.2	557.9	0.1
Pennsylvania	-1.7	55.6	54.0	226.9	221.2	0.0
Rhode Island	-2.7	63.6	63.1	272.9	262.7	-0.1
South Carolina	7.6	65.3	63.5	263.8	291.5	0.2
South Dakota	7.0	60.8	60.8	384.9	419.1	0.2
Tennessee	-5.3	73.7	72.9	335.5	312.5	-0.2
Texas	4.9	56.2	55.7	314.3	334.8	0.1
Utah	-0.5	71.8	71.7	614.9	611.6	0.0
Vermont	0.8	57.2	58.4	230.9	233.7	0.0
Virginia	-3.7	54.5	49.4	272.8	258.9	-0.1
Washington	0.6	61.2	59.4	495.1	498.6	0.0
West Virginia	-2.8	44.4	38.8	258.2	248.3	-0.2
Wisconsin	0.4	57.5	57.9	289.2	290.8	0.0
Wyoming	-0.4	47.8	47.5	417.1	415.2	0.0

Table 3: Comparison of the Second Quarter 2023 published Metropolitan-Level ED HPI (computed using the previously licensed data) versus the test ED HPI (computed using the newly licensed data).

Seasonally Adjusted, 1991Q1=100)

Metro area	Index level difference % (2023Q2)	5-year cumulative change% (2018Q2 to 2023Q2)		Cumulative change since 1991Q1%		Mean revision in YoY% changes (percentage point)
		Published	Test	Published	Test	
Anaheim-Santa Ana-Irvine, CA (MSAD)	-2.4	51.4	50.4	364.7	353.3	-0.1
Atlanta-Sandy Springs-Alpharetta, GA	5.6	73.2	72.6	255.1	274.9	0.2
Austin-Round Rock-Georgetown, TX	7.0	63.3	61.8	563.7	610.3	0.2
Baltimore-Columbia-Towson, MD	-0.5	42.1	43.6	197.7	196.3	0.0
Boston, MA (MSAD)	-2.2	48.0	47.4	384.4	373.7	0.0
Cambridge-Newton-Framingham, MA (MSAD)	-1.0	47.1	46.7	372.6	368.0	0.0
Charlotte-Concord-Gastonia, NC-SC	-1.8	74.4	73.2	298.2	290.9	-0.1
Chicago-Naperville-Evanston, IL (MSAD)	1.8	43.9	43.6	173.3	178.4	0.0
Cincinnati, OH-KY-IN	1.7	61.1	60.1	194.5	199.5	0.0
Cleveland-Elyria, OH	2.4	59.6	59.1	137.0	142.6	0.1
Columbus, OH	3.8	62.8	63.2	231.7	244.4	0.1
Dallas-Plano-Irving, TX (MSAD)	0.1	57.8	57.5	333.3	333.8	0.0
Denver-Aurora-Lakewood, CO	0.9	47.6	47.2	571.7	577.9	0.0
Detroit-Dearborn-Livonia, MI (MSAD)	9.6	61.0	61.9	145.2	168.8	0.3
Fort Lauderdale-Pompano Beach-Sunrise, FL (MSAD)	1.0	72.1	71.3	394.6	399.7	0.0
Fort Worth-Arlington-Grapevine, TX (MSAD)	0.8	61.1	61.2	320.7	324.3	0.0
Houston-The Woodlands-Sugar Land, TX	4.3	47.4	47.4	275.1	291.2	0.1
Indianapolis-Carmel-Anderson, IN	-1.2	65.4	69.4	198.2	194.6	-0.2
Jacksonville, FL	5.1	72.3	72.5	311.4	332.6	0.1
Kansas City, MO-KS	2.0	62.1	62.5	290.4	298.3	0.1
Las Vegas-Henderson-Paradise, NV	6.3	52.1	52.4	249.2	271.0	0.0
Los Angeles-Long Beach-Glendale, CA (MSAD)	-0.2	51.3	51.7	324.2	323.5	0.0
Miami-Miami Beach-Kendall, FL (MSAD)	-0.4	82.3	80.1	520.1	517.5	0.0
Milwaukee-Waukesha, WI	0.8	56.4	55.2	255.0	257.8	0.1

Minneapolis-St. Paul-Bloomington, MN-WI	1.1	40.9	40.2	300.0	304.5	0.0
Montgomery County-Bucks County-Chester County, PA (MSAD)	-0.1	52.1	50.0	209.9	209.5	0.0
Nashville-Davidson--Murfreesboro--Franklin, TN	-0.4	69.8	69.4	422.4	420.4	0.0
Nassau County-Suffolk County, NY (MSAD)	1.0	53.4	51.6	318.0	322.1	0.1
Newark, NJ-PA (MSAD)	1.0	58.9	60.8	242.9	246.5	0.0
New York-Jersey City-White Plains, NY-NJ (MSAD)	3.3	42.8	42.6	267.5	279.5	0.1
Oakland-Berkeley-Livermore, CA (MSAD)	1.3	36.5	35.7	357.9	363.8	0.0
Orlando-Kissimmee-Sanford, FL	8.2	71.7	70.3	305.9	339.2	0.2
Philadelphia, PA (MSAD)	-12.8	55.1	54.0	297.1	246.4	-0.4
Phoenix-Mesa-Chandler, AZ	-0.6	72.8	74.4	402.4	399.2	0.0
Pittsburgh, PA	3.7	49.2	49.3	217.9	229.8	0.0
Portland-Vancouver-Hillsboro, OR-WA	-2.6	41.6	42.2	564.4	547.1	0.0
Providence-Warwick, RI-MA	-1.6	60.6	60.9	298.0	291.8	-0.1
Riverside-San Bernardino-Ontario, CA	3.2	61.0	61.9	273.4	285.2	0.1
Sacramento-Roseville-Folsom, CA	4.9	45.4	45.0	257.0	274.4	0.1
St. Louis, MO-IL	2.6	50.0	49.9	180.3	187.5	0.1
San Antonio-New Braunfels, TX	-0.1	56.2	55.9	335.2	334.6	0.0
San Diego-Chula Vista-Carlsbad, CA	1.8	57.0	57.5	376.6	385.4	0.1
San Francisco-San Mateo-Redwood City, CA (MSAD)	3.5	19.7	19.8	413.3	431.1	0.0
San Jose-Sunnyvale-Santa Clara, CA	1.4	31.9	31.7	404.1	411.4	0.0
Seattle-Bellevue-Kent, WA (MSAD)	-1.0	48.6	46.9	495.3	489.1	0.0
Tampa-St. Petersburg-Clearwater, FL	10.1	86.5	85.8	372.4	420.3	0.3
Virginia Beach-Norfolk-Newport News, VA-NC	-10.7	53.7	51.5	279.8	239.3	-0.4
Warren-Troy-Farmington Hills, MI (MSAD)	7.0	50.7	52.4	203.2	224.3	0.2
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSAD)	-0.6	44.1	42.2	252.9	250.7	0.0
West Palm Beach-Boca Raton-Boynton Beach, FL (MSAD)	0.6	79.8	76.6	365.8	368.6	0.0