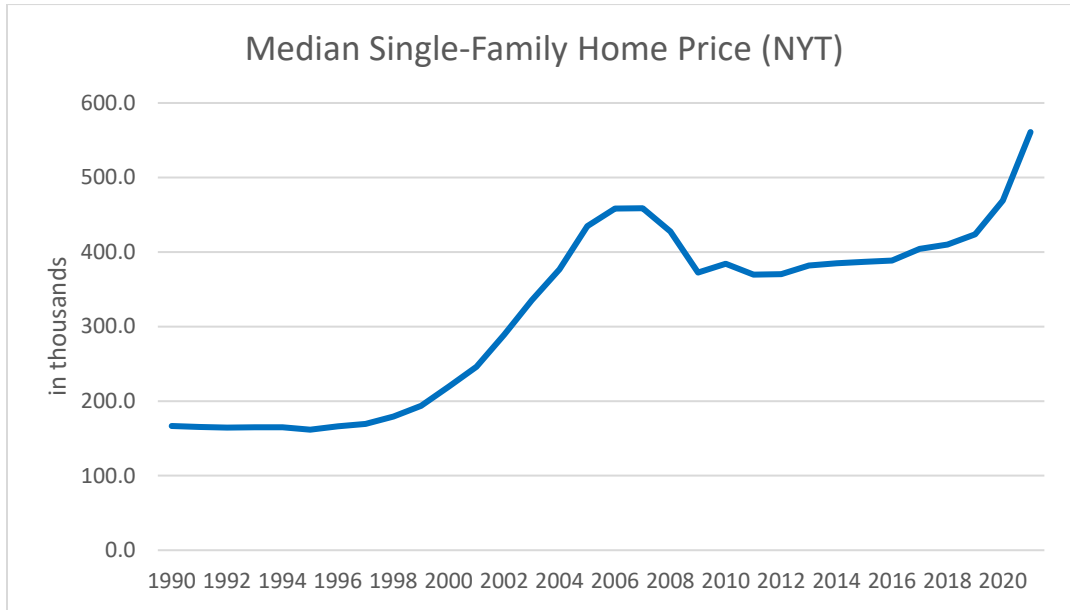


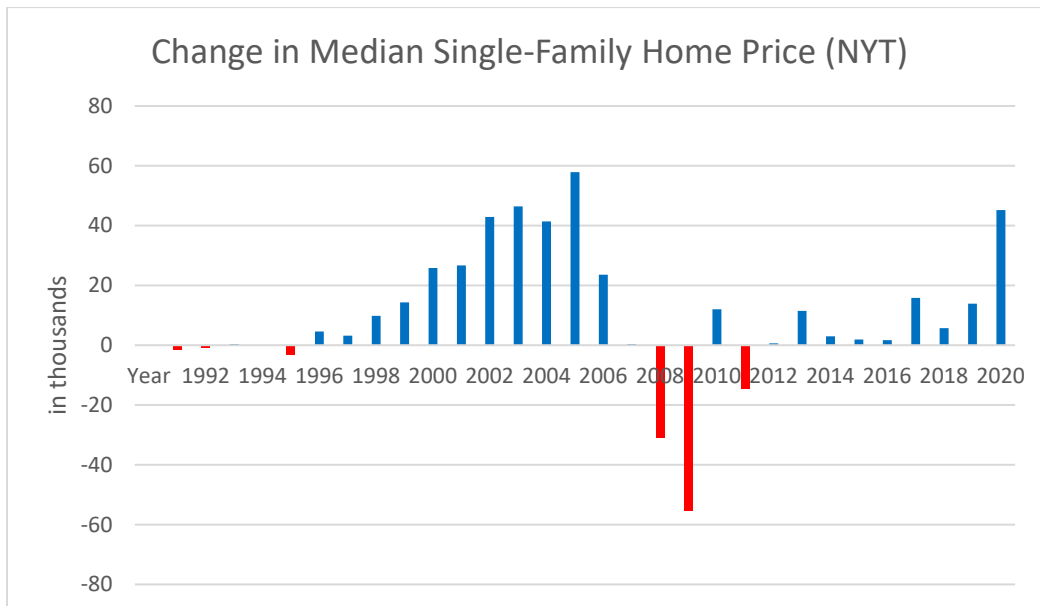
Appendix: Median Single-Family Home Prices (1990-2021) Trends Across the 10 Largest MSAs

The below appendices are specific to the ten most populated metropolitan areas as determined by the American Community Survey's 2019 1-Year Estimates, in descending order. Each appendix includes a look into three different aspects of price: 1) the nominal value of median single-family home prices and its change from 1990-2021 2) median single-family home price appreciation and real price appreciation and 3) 10-year periods of homeownership and their expectations, beginning in 1990.

Appendix A: New York-Newark-Jersey City, NY-NJ-PA (NYT)



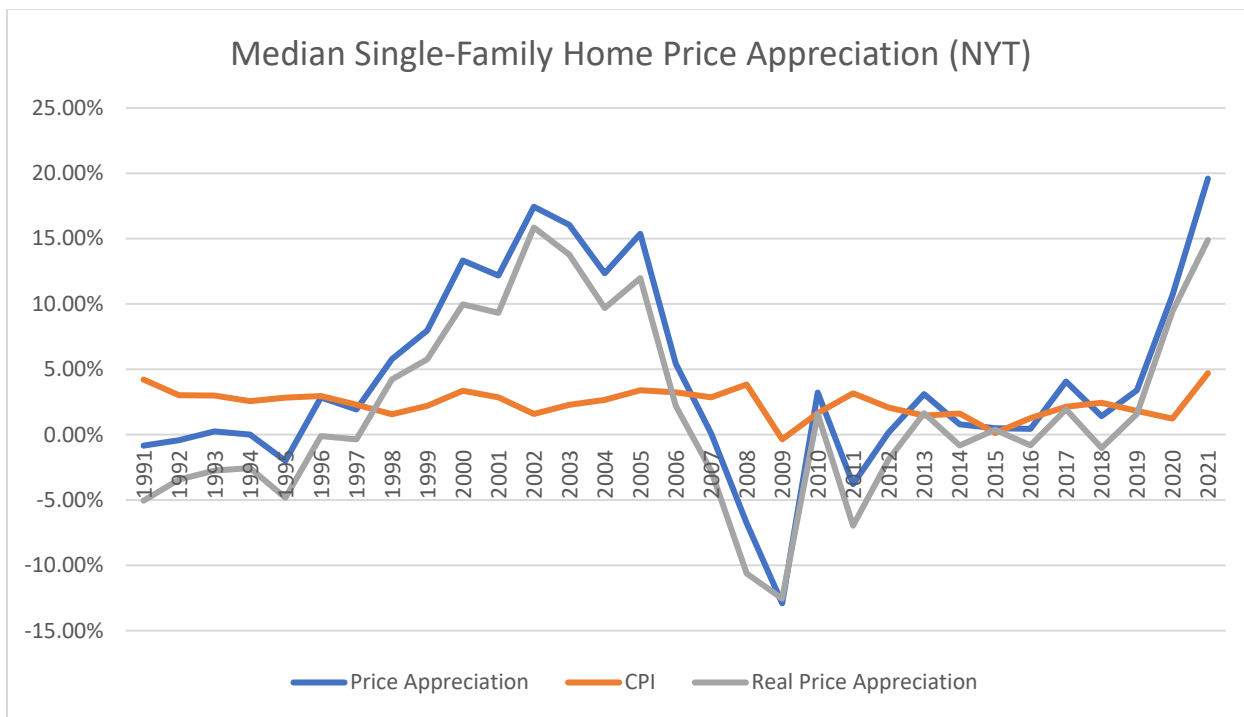
Median single-family home price from 1990-2021.



The difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – NYT

	NYT		
	Price Appreciation	CPI	Real Price Appreciation
1991	-0.84%	4.21%	-5.05%
1992	-0.42%	3.01%	-3.43%
1993	0.24%	2.99%	-2.75%
1994	0.00%	2.56%	-2.56%
1995	-2.00%	2.83%	-4.83%
1996	2.84%	2.95%	-0.11%
1997	1.92%	2.29%	-0.37%
1998	5.78%	1.56%	4.22%
1999	7.98%	2.21%	5.77%
2000	13.33%	3.36%	9.97%
2001	12.17%	2.85%	9.32%
2002	17.43%	1.58%	15.85%
2003	16.06%	2.28%	13.78%
2004	12.34%	2.66%	9.68%
2005	15.37%	3.39%	11.98%
2006	5.43%	3.23%	2.20%
2007	0.09%	2.85%	-2.76%
2008	-6.78%	3.84%	-10.62%
2009	-12.91%	0.36%	-12.55%
2010	3.22%	1.64%	1.58%
2011	-3.80%	3.16%	-6.96%
2012	0.16%	2.07%	-1.91%
2013	3.10%	1.46%	1.64%
2014	0.79%	1.62%	-0.83%
2015	0.49%	0.12%	0.37%
2016	0.44%	1.26%	-0.82%
2017	4.07%	2.13%	1.94%
2018	1.41%	2.44%	-1.03%
2019	3.39%	1.81%	1.58%
2020	10.66%	1.23%	9.43%
2021	19.59%	4.70%	14.89%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 4.24% every year.
- The real price appreciation averaged 1.86% every year.

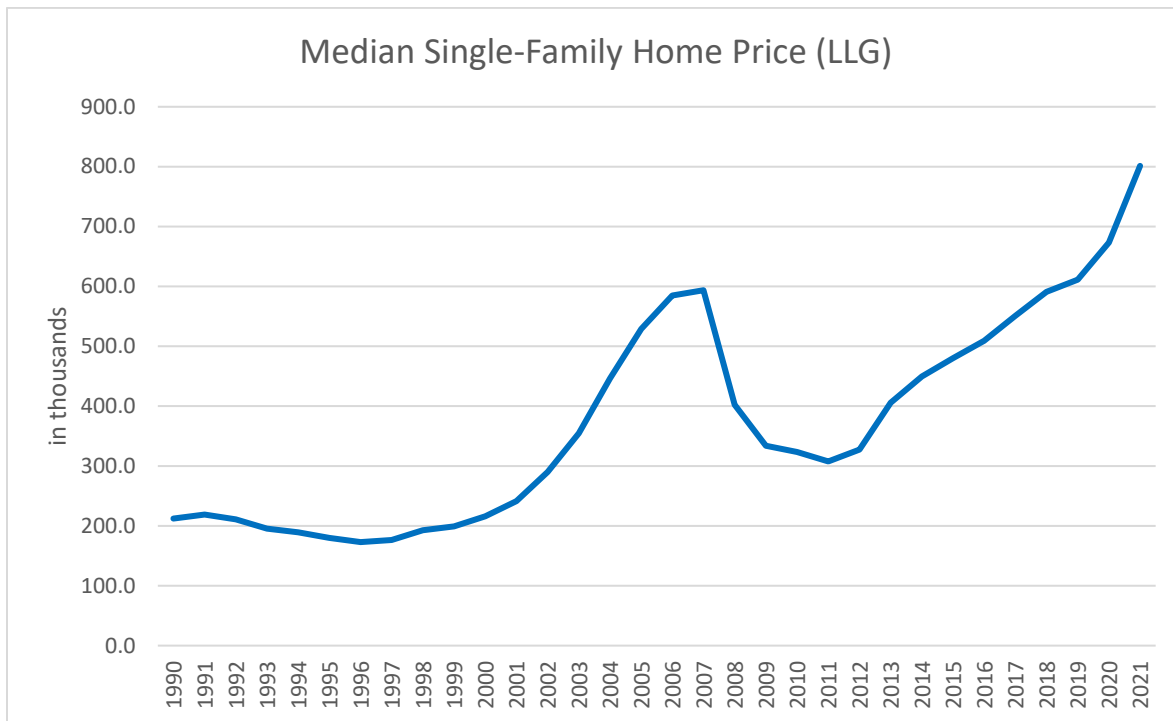
Median Single-Family Home Prices and the Average Length of Homeownership

	NYT
1990 to 2000	52.7
1991 to 2001	80.8
1992 to 2002	124.4
1993 to 2003	170.4
1994 to 2004	211.8
1995 to 2005	273.0
1996 to 2006	292.0
1997 to 2007	289.2
1998 to 2008	248.3
1999 to 2009	178.8
2000 to 2010	165.0
2001 to 2011	123.7
2002 to 2012	81.4
2003 to 2013	46.5
2004 to 2014	8.1
2005 to 2015	-47.9

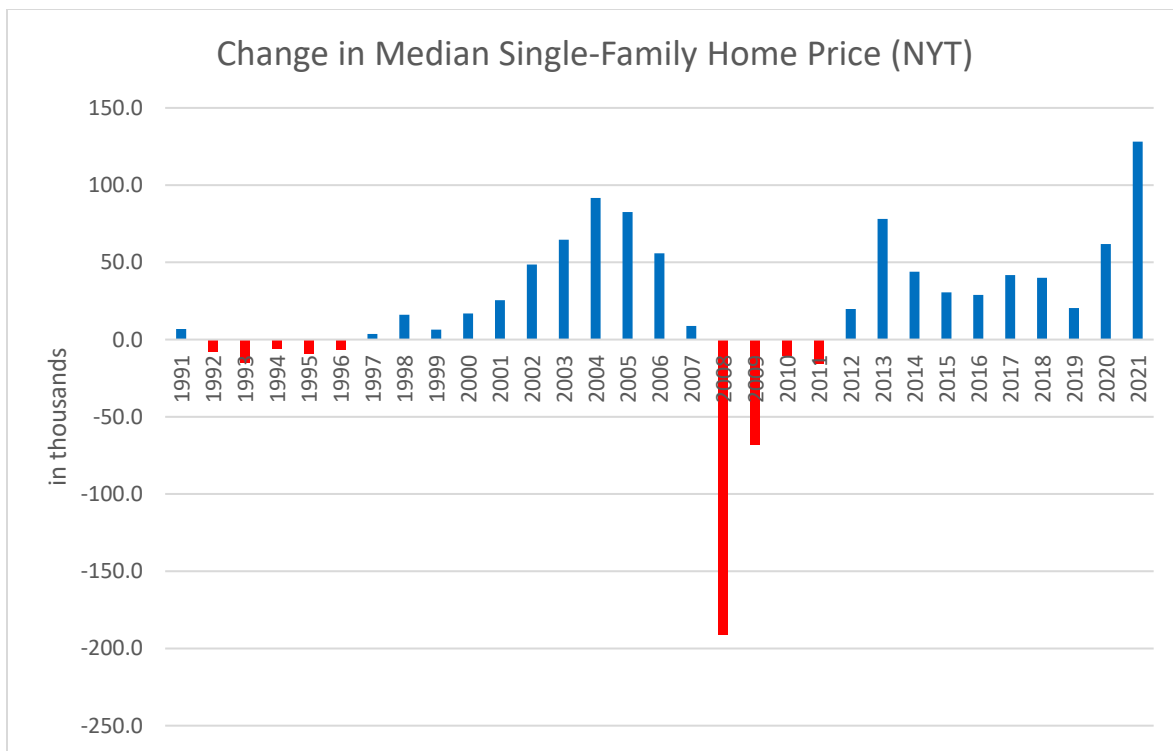
2006 to 2016	-69.8
2007 to 2017	-54.4
2008 to 2018	-17.6
2009 to 2019	51.5
2010 to 2020	84.7
2011 to 2021	191.2

- Over a 30-year period, there were four years where the median single-family home price was lower 10 years later.
 - 2005, 2006, 2007, and 2008
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in New York-Newark-Jersey City, NY-NJ-PA was \$148,500.

Appendix B: Los Angeles-Long Beach-Anaheim, CA (LLG)



Median single-family home price from 1990-2021.



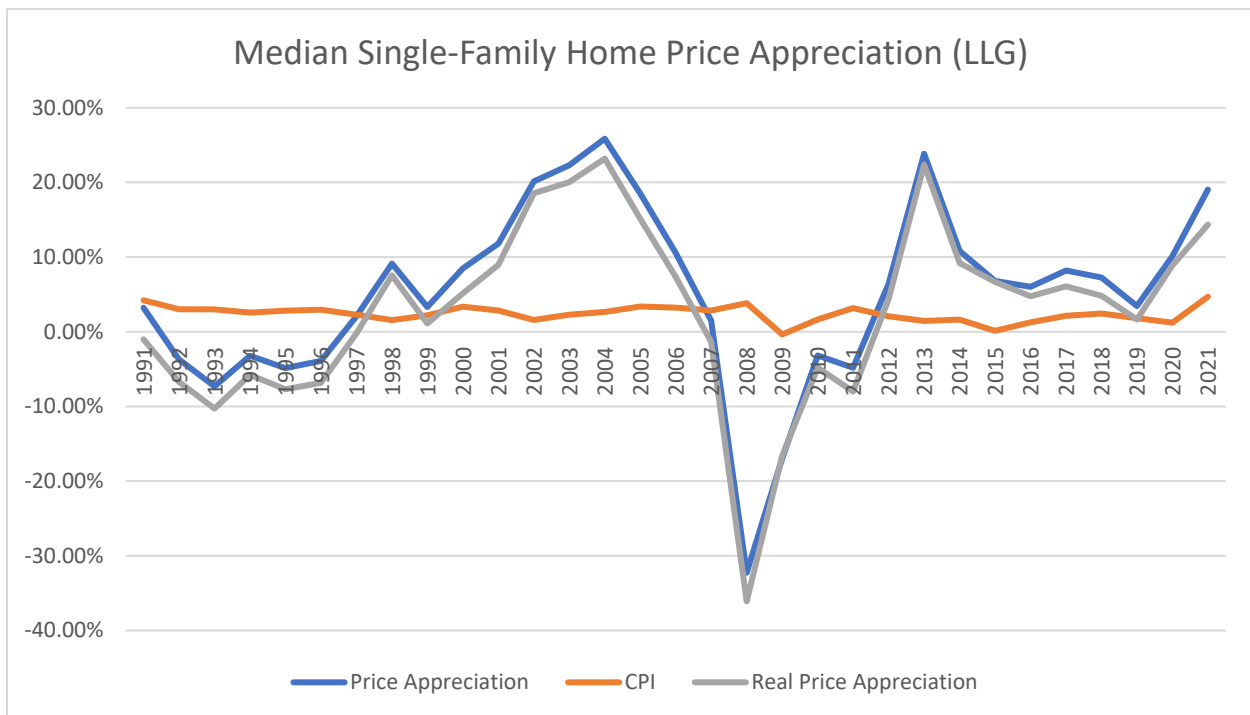
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – LLG

	LLG		
	Price Appreciation	CPI	Real Price Appreciation
1991	3.21%	4.21%	-1.00%
1992	-3.70%	3.01%	-6.71%
1993	-7.31%	2.99%	-10.30%
1994	-3.22%	2.56%	-5.78%
1995	-4.87%	2.83%	-7.70%
1996	-3.89%	2.95%	-6.84%
1997	2.08%	2.29%	-0.21%
1998	9.12%	1.56%	7.56%
1999	3.32%	2.21%	1.11%
2000	8.49%	3.36%	5.13%
2001	11.81%	2.85%	8.96%
2002	20.13%	1.58%	18.55%
2003	22.31%	2.28%	20.03%
2004	25.85%	2.66%	23.19%
2005	18.50%	3.39%	15.11%
2006	10.55%	3.23%	7.32%
2007	1.50%	2.85%	-1.35%
2008	-32.26%	3.84%	-36.10%
2009	-16.96%	-0.36%	-16.60%

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2010	-3.17%	1.64%	-4.81%
2011	-4.83%	3.16%	-7.99%
2012	6.43%	2.07%	4.36%
2013	23.85%	1.46%	22.39%
2014	10.82%	1.62%	9.20%
2015	6.81%	0.12%	6.69%
2016	6.02%	1.26%	4.76%
2017	8.21%	2.13%	6.08%
2018	7.26%	2.44%	4.82%
2019	3.45%	1.81%	1.64%
2020	10.13%	1.23%	8.90%
2021	19.05%	4.70%	14.35%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 5.12% every year.
- The real price appreciation averaged 2.73% every year.

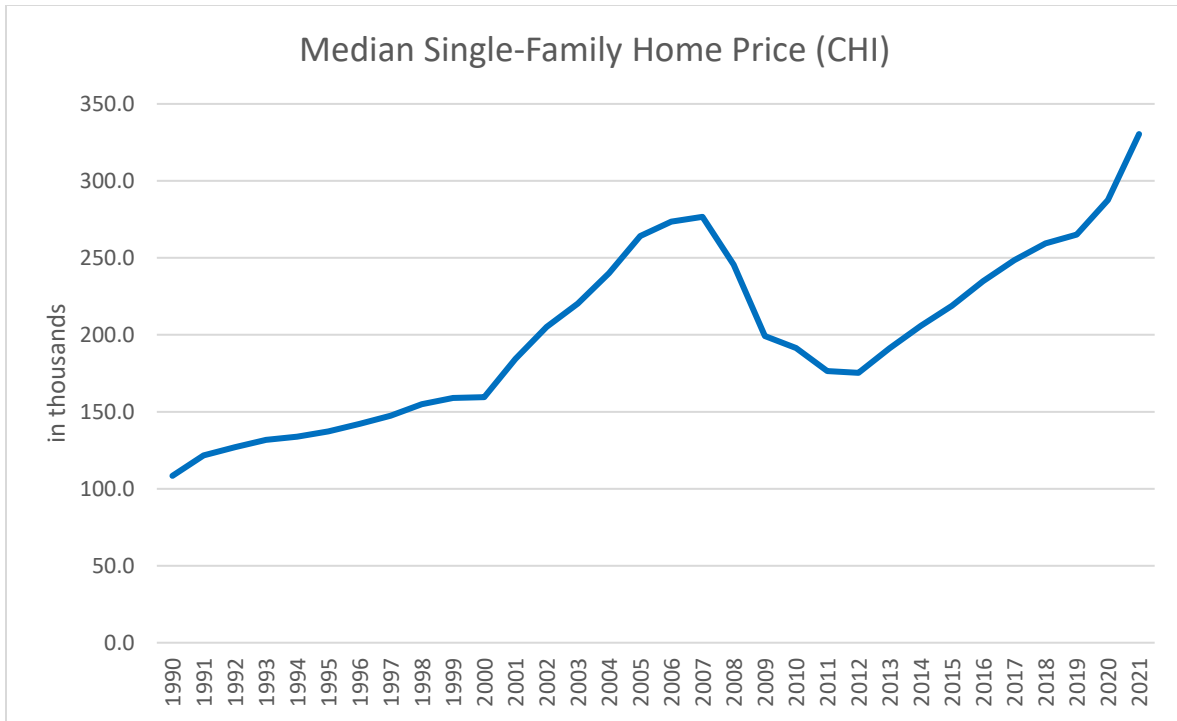
Median Single-Family Home Prices and the Average Length of Homeownership

	LLG
1990 to 2000	3.8
1991 to 2001	22.5

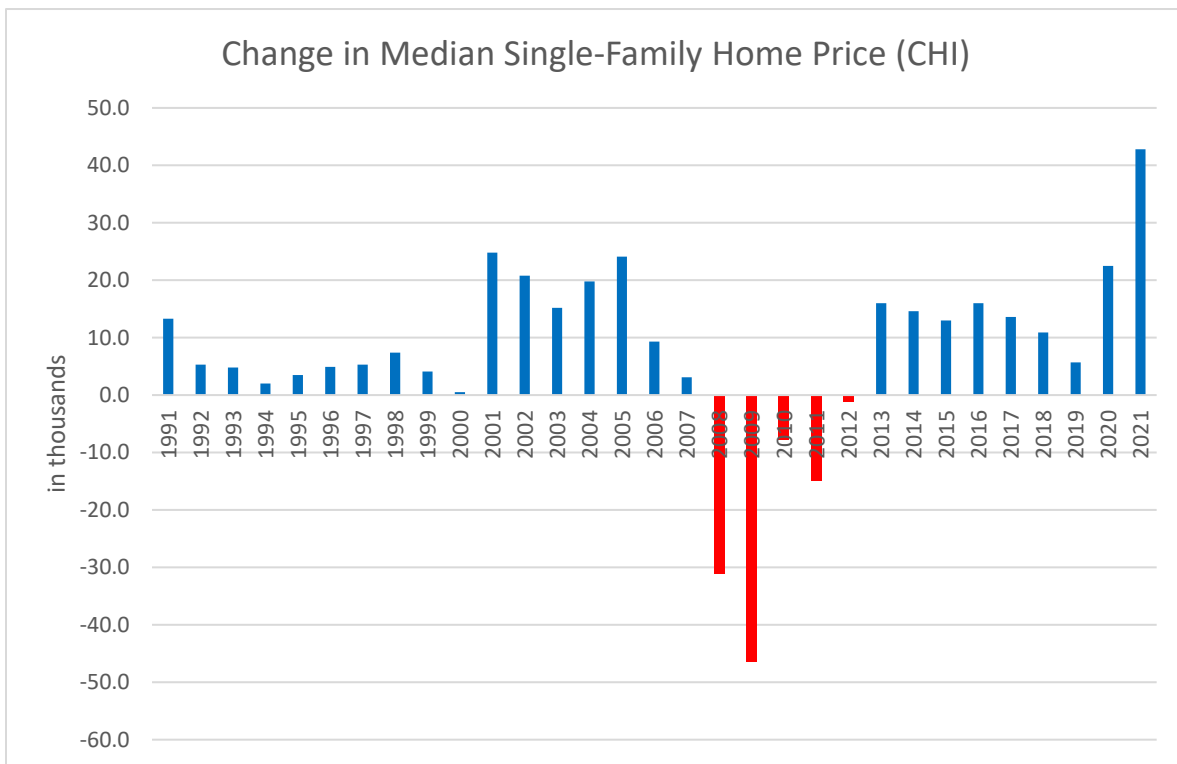
1992 to 2002	79.2
1993 to 2003	159.3
1994 to 2004	257.3
1995 to 2005	349.1
1996 to 2006	411.9
1997 to 2007	417.1
1998 to 2008	209.5
1999 to 2009	134.9
2000 to 2010	107.4
2001 to 2011	66.3
2002 to 2012	37.5
2003 to 2013	50.9
2004 to 2014	3.1
2005 to 2015	-48.9
2006 to 2016	-75.8
2007 to 2017	-42.8
2008 to 2018	188.7
2009 to 2019	277.3
2010 to 2020	349.8
2011 to 2021	493.6

- Over a 30-year period, there were three years where the median single-family home price was less 10 years later.
 - 2005, 2006, and 2007
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Los Angeles-Long Beach-Anaheim, CA was \$190,500 .

Appendix C: Chicago-Naperville-Elgin, IL-IN-WI (CHI)



Median single-family home price from 1990-2021.

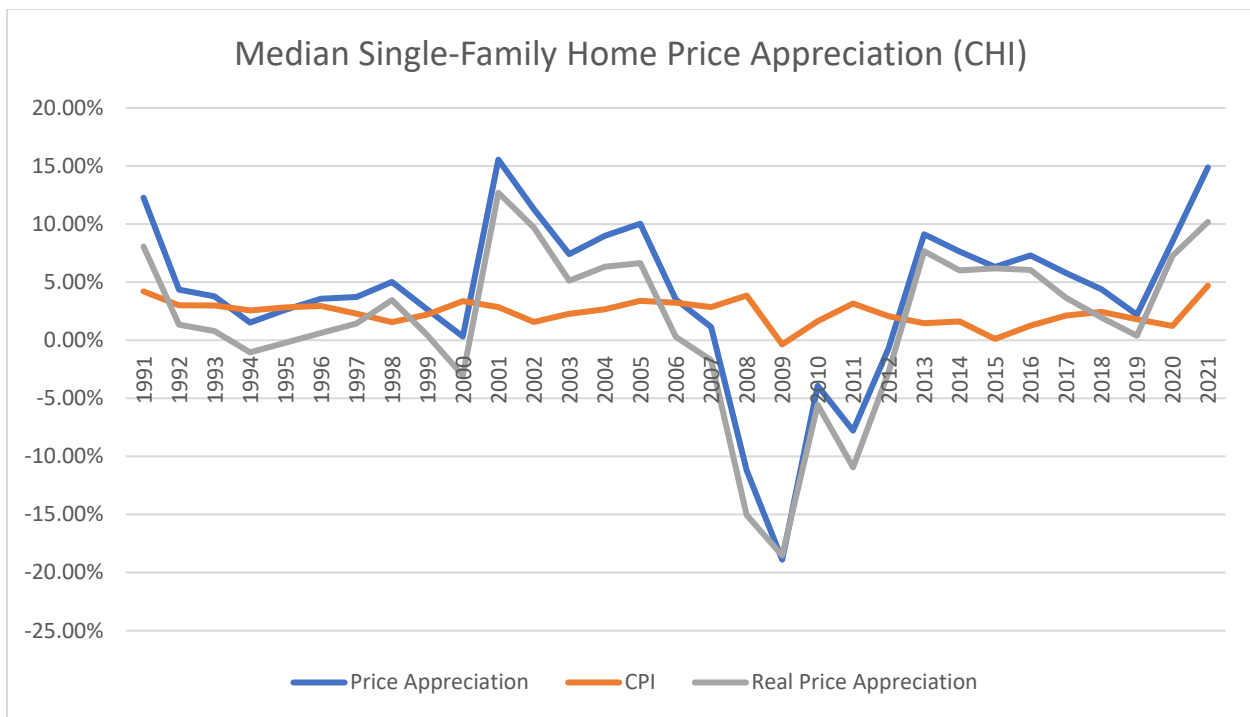


Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – CHI

	CHI	
	Price Appreciation	Real Price Appreciation
	CPI	

1991	12.27%	4.21%	8.06%
1992	4.35%	3.01%	1.34%
1993	3.78%	2.99%	0.79%
1994	1.52%	2.56%	-1.04%
1995	2.62%	2.83%	-0.21%
1996	3.57%	2.95%	0.62%
1997	3.73%	2.29%	1.44%
1998	5.02%	1.56%	3.46%
1999	2.65%	2.21%	0.44%
2000	0.31%	3.36%	-3.05%
2001	15.55%	2.85%	12.70%
2002	11.29%	1.58%	9.71%
2003	7.41%	2.28%	5.13%
2004	8.99%	2.66%	6.33%
2005	10.04%	3.39%	6.65%
2006	3.52%	3.23%	0.29%
2007	1.13%	2.85%	-1.72%
2008	-11.21%	3.84%	-15.05%
2009	-18.89%	-0.36%	-18.53%
2010	-3.92%	1.64%	-5.56%
2011	-7.78%	3.16%	-10.94%
2012	-0.68%	2.07%	-2.75%
2013	9.13%	1.46%	7.67%
2014	7.63%	1.62%	6.01%
2015	6.31%	0.12%	6.19%
2016	7.31%	1.26%	6.05%
2017	5.79%	2.13%	3.66%
2018	4.39%	2.44%	1.95%
2019	2.20%	1.81%	0.39%
2020	8.49%	1.23%	7.26%
2021	14.88%	4.70%	10.18%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 3.92% every year.
- The real price appreciation averaged 1.53% every year.

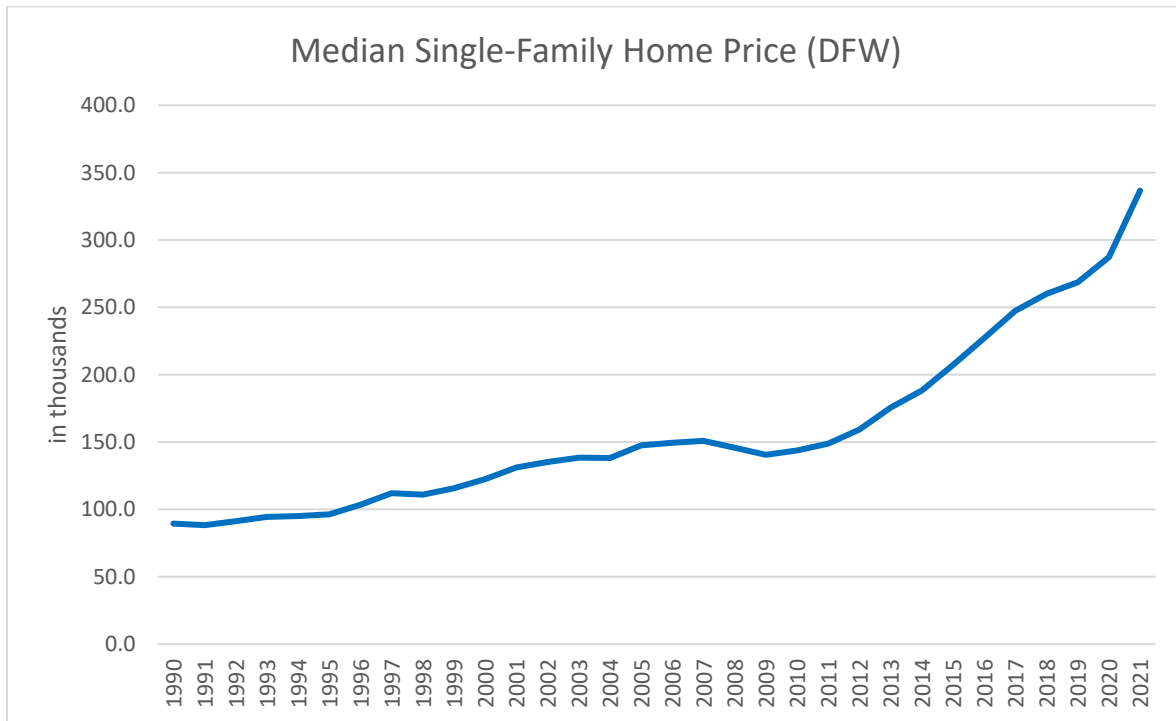
Median Single-Family Home Prices and the Average Length of Homeownership

	CHI
1990 to 2000	51.1
1991 to 2001	62.6
1992 to 2002	78.1
1993 to 2003	88.5
1994 to 2004	106.3
1995 to 2005	126.9
1996 to 2006	131.3
1997 to 2007	129.1
1998 to 2008	90.7
1999 to 2009	40.2
2000 to 2010	31.9
2001 to 2011	-7.8
2002 to 2012	-29.8
2003 to 2013	-29.0
2004 to 2014	-34.2
2005 to 2015	-45.3

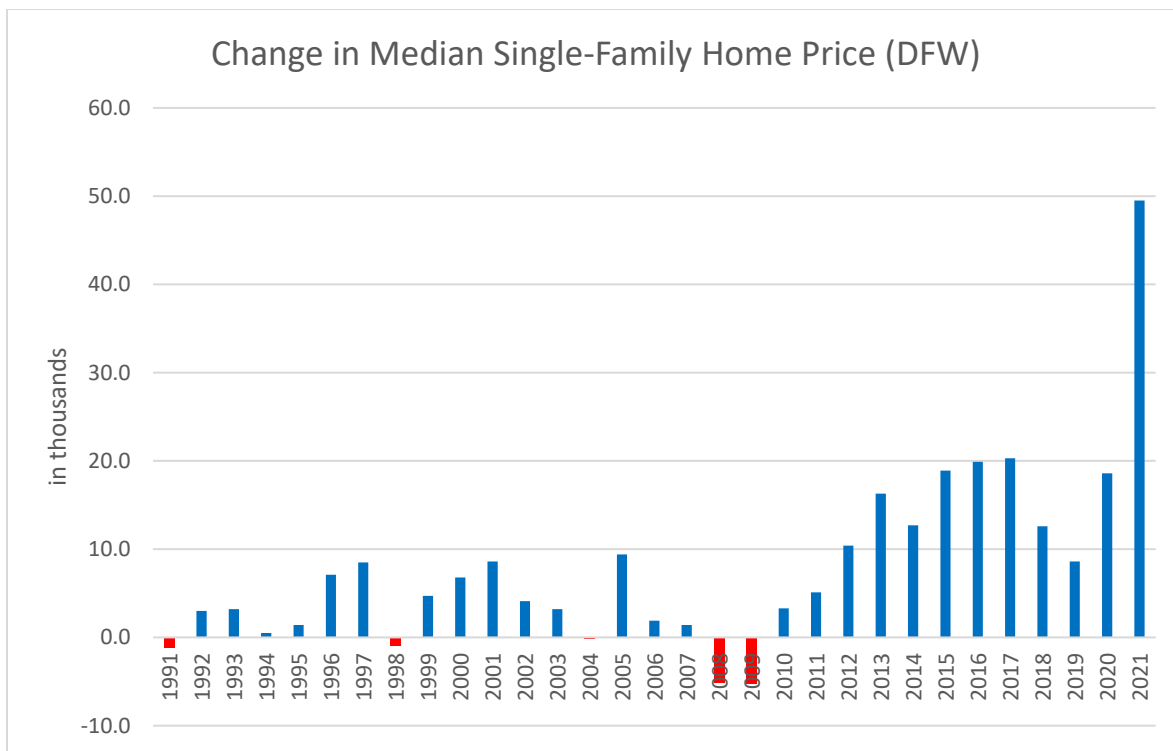
2006 to 2016	-38.6
2007 to 2017	-28.1
2008 to 2018	13.8
2009 to 2019	65.9
2010 to 2020	96.2
2011 to 2021	153.9

- Over a 30-year period, there were seven years where the median single-family home price was less 10 years later.
 - 2001, 2002, 2003, 2004, 2005, 2006, and 2007
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Chicago-Naperville-Elgin, IL-IN-WI was \$84,400.

Appendix D: Dallas-Fort Worth-Arlington, TX (DFW)



Median single-family home price from 1990-2021.



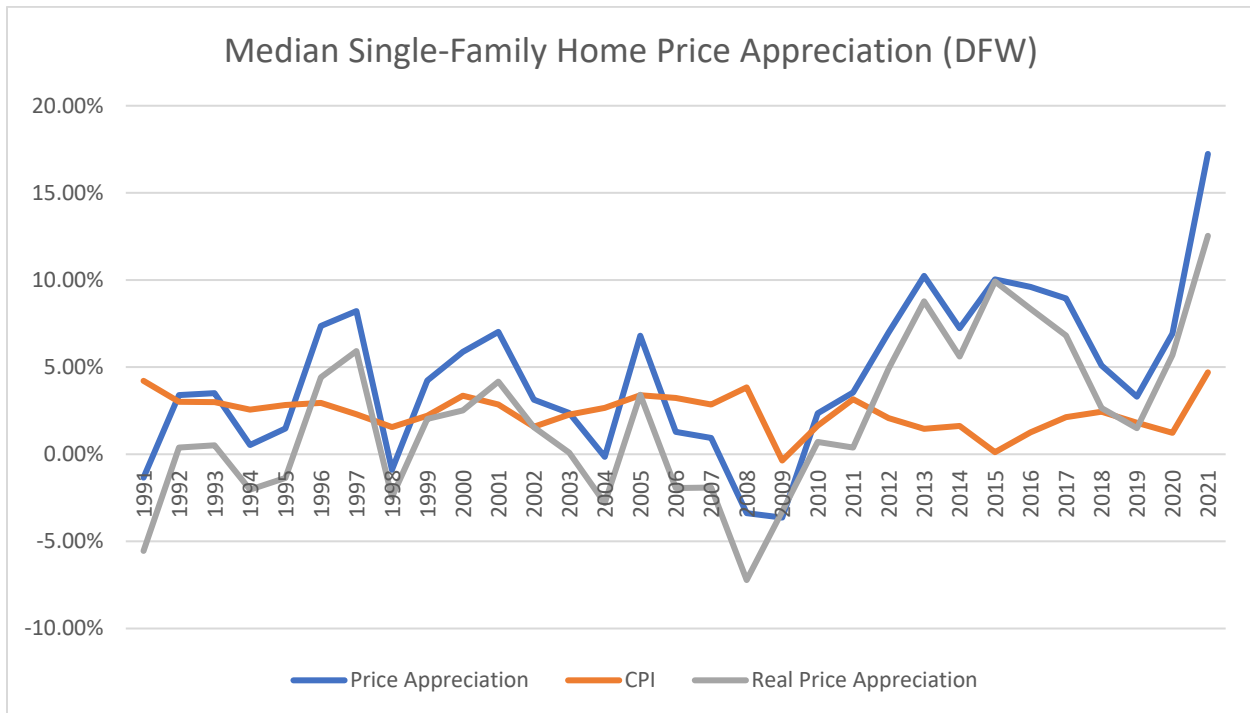
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – DFW

	DFW		
	Price Appreciation	CPI	Real Price Appreciation
1991	-1.34%	4.21%	-5.55%
1992	3.40%	3.01%	0.39%
1993	3.50%	2.99%	0.51%
1994	0.53%	2.56%	-2.03%
1995	1.47%	2.83%	-1.36%
1996	7.37%	2.95%	4.42%
1997	8.21%	2.29%	5.92%
1998	-0.89%	1.56%	-2.45%
1999	4.23%	2.21%	2.02%
2000	5.88%	3.36%	2.52%
2001	7.02%	2.85%	4.17%
2002	3.13%	1.58%	1.55%
2003	2.37%	2.28%	0.09%
2004	-0.14%	2.66%	-2.80%
2005	6.80%	3.39%	3.41%
2006	1.29%	3.23%	-1.94%
2007	0.94%	2.85%	-1.91%
2008	-3.38%	3.84%	-7.22%
2009	-3.64%	-0.36%	-3.28%

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2010	2.35%	1.64%	0.71%
2011	3.55%	3.16%	0.39%
2012	6.98%	2.07%	4.91%
2013	10.23%	1.46%	8.77%
2014	7.23%	1.62%	5.61%
2015	10.04%	0.12%	9.92%
2016	9.60%	1.26%	8.34%
2017	8.94%	2.13%	6.81%
2018	5.09%	2.44%	2.65%
2019	3.31%	1.81%	1.50%
2020	6.92%	1.23%	5.69%
2021	17.24%	4.70%	12.54%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 4.46% every year.
- The real price appreciation averaged 2.07% every year.

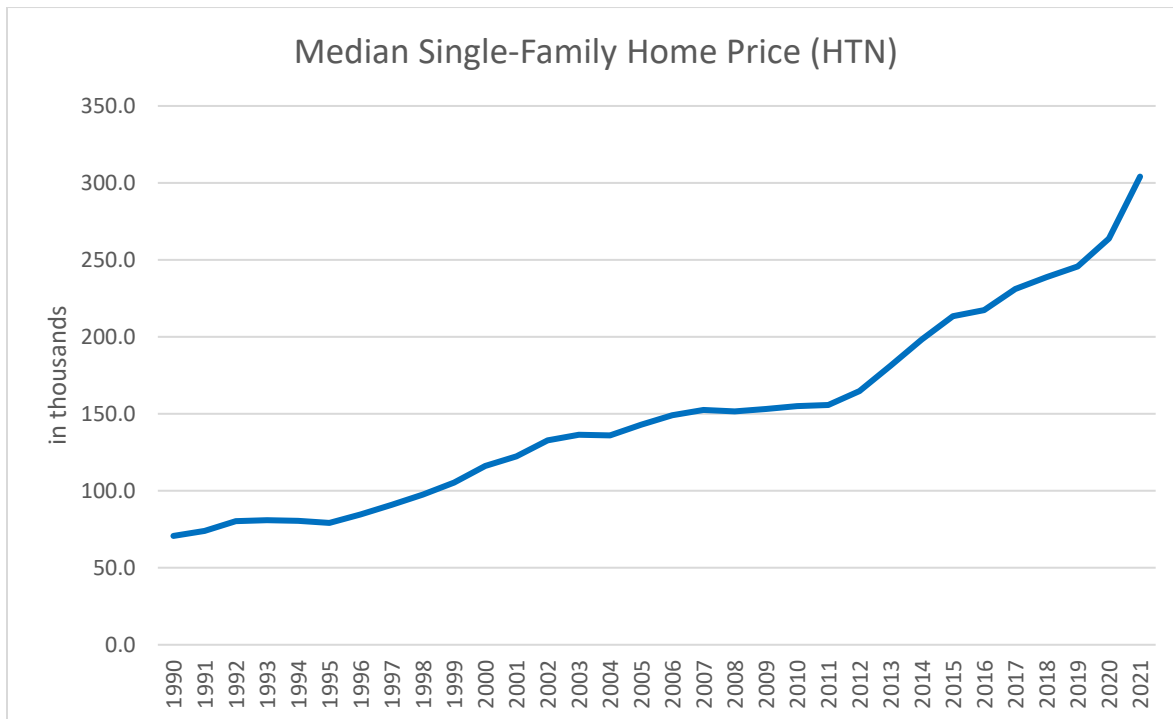
Median Single-Family Home Prices and the Average Length of Homeownership

	DFW
1990 to 2000	33.0
1991 to 2001	42.8

1992 to 2002	43.9
1993 to 2003	43.9
1994 to 2004	43.2
1995 to 2005	51.2
1996 to 2006	46.0
1997 to 2007	38.9
1998 to 2008	34.8
1999 to 2009	24.8
2000 to 2010	21.3
2001 to 2011	17.8
2002 to 2012	24.1
2003 to 2013	37.2
2004 to 2014	50.1
2005 to 2015	59.6
2006 to 2016	77.6
2007 to 2017	96.5
2008 to 2018	114.2
2009 to 2019	128.1
2010 to 2020	143.4
2011 to 2021	187.8

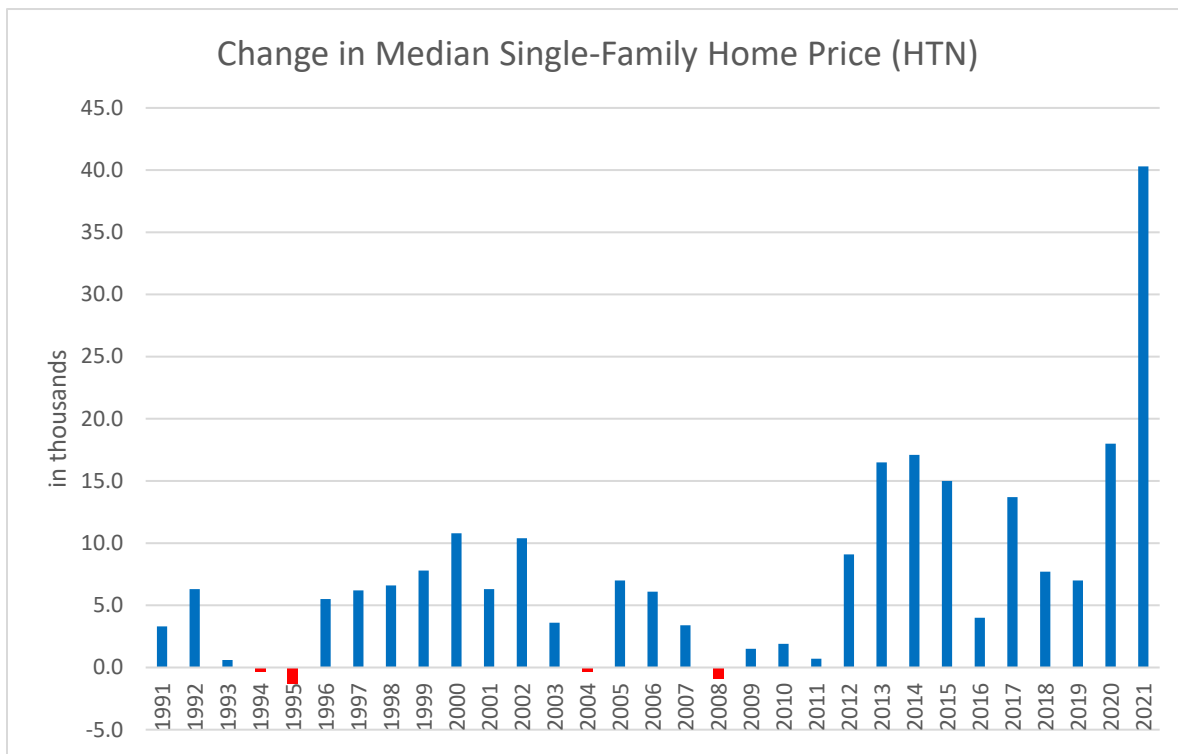
- Over a 30-year period, there were no years where the median single-family home price was less 10 years later—every 10-year period had a price increase
- The average price increase of a single-family home across a 10-year period in Dallas-Fort Worth-Arlington, TX was \$61,800

Appendix E: Houston-The Woodlands-Sugar Land, TX (HTN)



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Median single-family home price from 1990-2021.



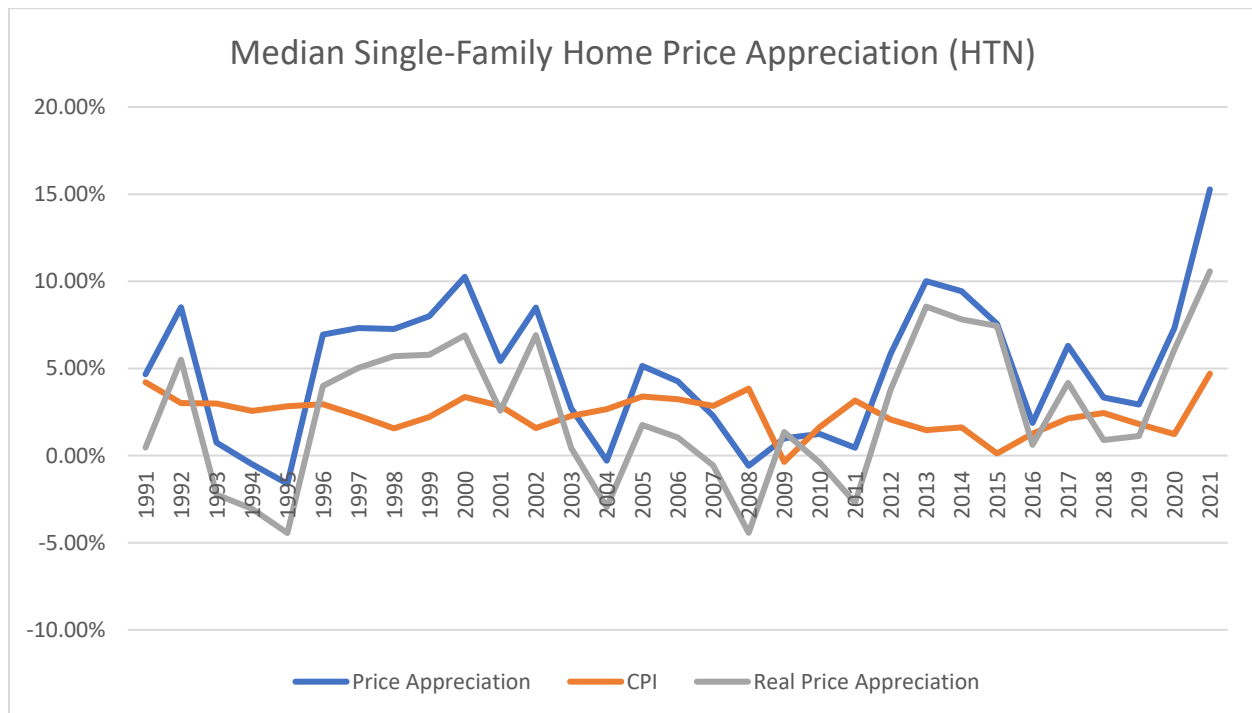
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – HTN

	HTN		
	Price Appreciation	CPI	Real Price Appreciation
1991	4.67%	4.21%	0.46%
1992	8.51%	3.01%	5.50%
1993	0.75%	2.99%	-2.24%
1994	-0.49%	2.56%	-3.05%
1995	-1.61%	2.83%	-4.44%
1996	6.94%	2.95%	3.99%
1997	7.32%	2.29%	5.03%
1998	7.26%	1.56%	5.70%
1999	8.00%	2.21%	5.79%
2000	10.26%	3.36%	6.90%
2001	5.43%	2.85%	2.58%
2002	8.50%	1.58%	6.92%
2003	2.71%	2.28%	0.43%
2004	-0.29%	2.66%	-2.95%
2005	5.15%	3.39%	1.76%
2006	4.27%	3.23%	1.04%
2007	2.28%	2.85%	-0.57%
2008	-0.59%	3.84%	-4.43%

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2009	0.99%	-0.36%	1.35%
2010	1.24%	1.64%	-0.40%
2011	0.45%	3.16%	-2.71%
2012	5.84%	2.07%	3.77%
2013	10.01%	1.46%	8.55%
2014	9.43%	1.62%	7.81%
2015	7.56%	0.12%	7.44%
2016	1.87%	1.26%	0.61%
2017	6.30%	2.13%	4.17%
2018	3.33%	2.44%	0.89%
2019	2.93%	1.81%	1.12%
2020	7.32%	1.23%	6.09%
2021	15.28%	4.70%	10.58%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

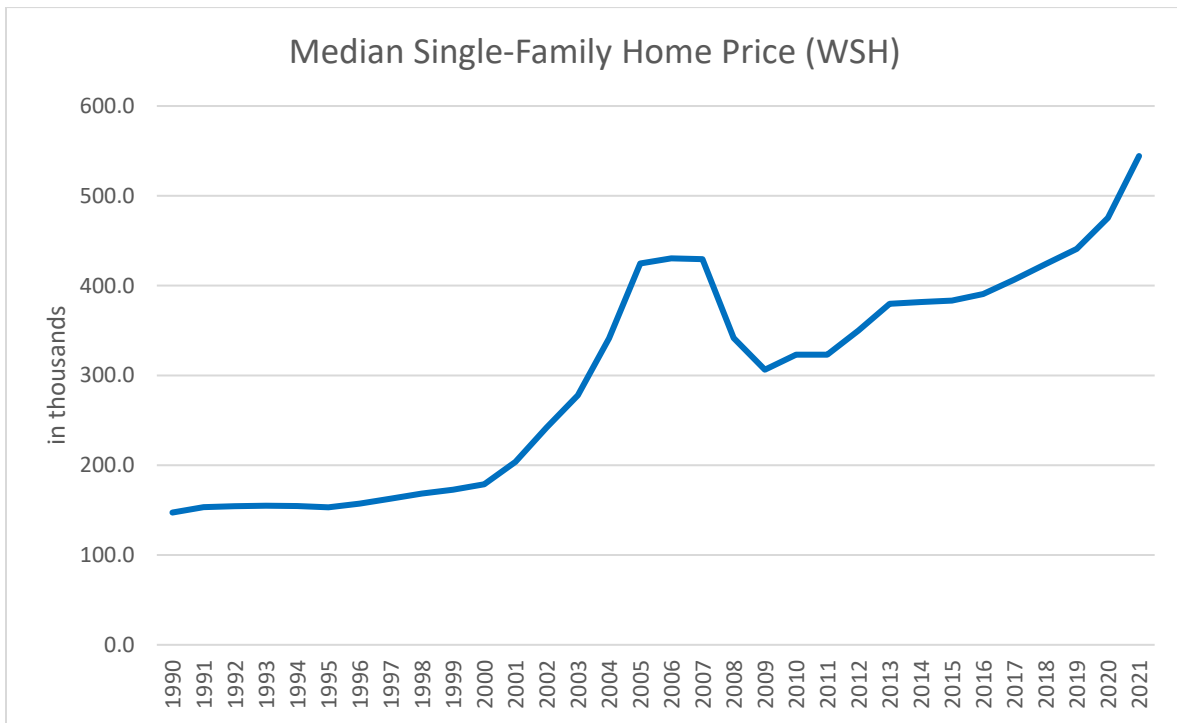
- The median single-family home price increased an average of 4.89% every year.
- The real price appreciation averaged 2.51% every year.

Median Single-Family Home Prices and the Average Length of Homeownership

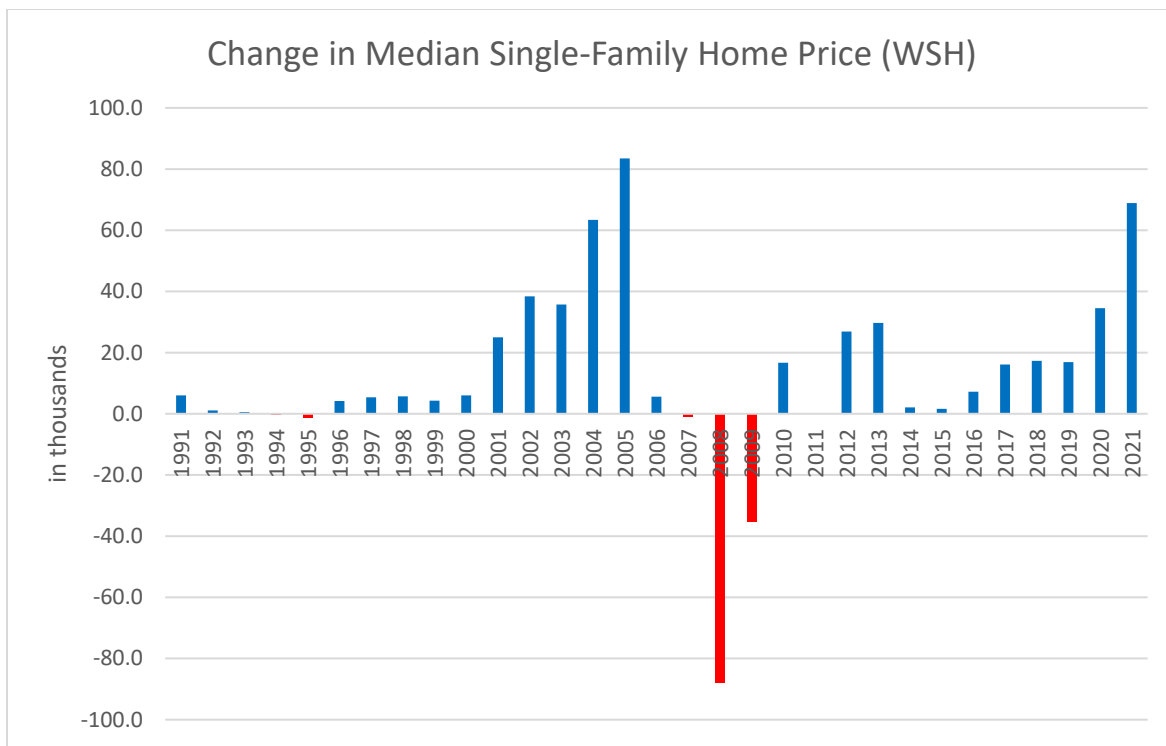
	HTN
1990 to 2000	45.4
1991 to 2001	48.4
1992 to 2002	52.5
1993 to 2003	55.5
1994 to 2004	55.5
1995 to 2005	63.8
1996 to 2006	64.4
1997 to 2007	61.6
1998 to 2008	54.1
1999 to 2009	47.8
2000 to 2010	38.9
2001 to 2011	33.3
2002 to 2012	32.0
2003 to 2013	44.9
2004 to 2014	62.4
2005 to 2015	70.4
2006 to 2016	68.3
2007 to 2017	78.6
2008 to 2018	87.2
2009 to 2019	92.7
2010 to 2020	108.8
2011 to 2021	148.4

- Over a 30-year period, there were no years where the median single-family home price was less 10 years later—every 10-year period had a price increase.
- The average price increase of a single-family home across a 10-year period in Houston-The Woodlands-Sugar Land, TX was \$64,300.

Appendix F: Washington-Arlington-Alexandria, DC-VA-MD-WV (WSH)



Median single-family home price from 1990-2021.

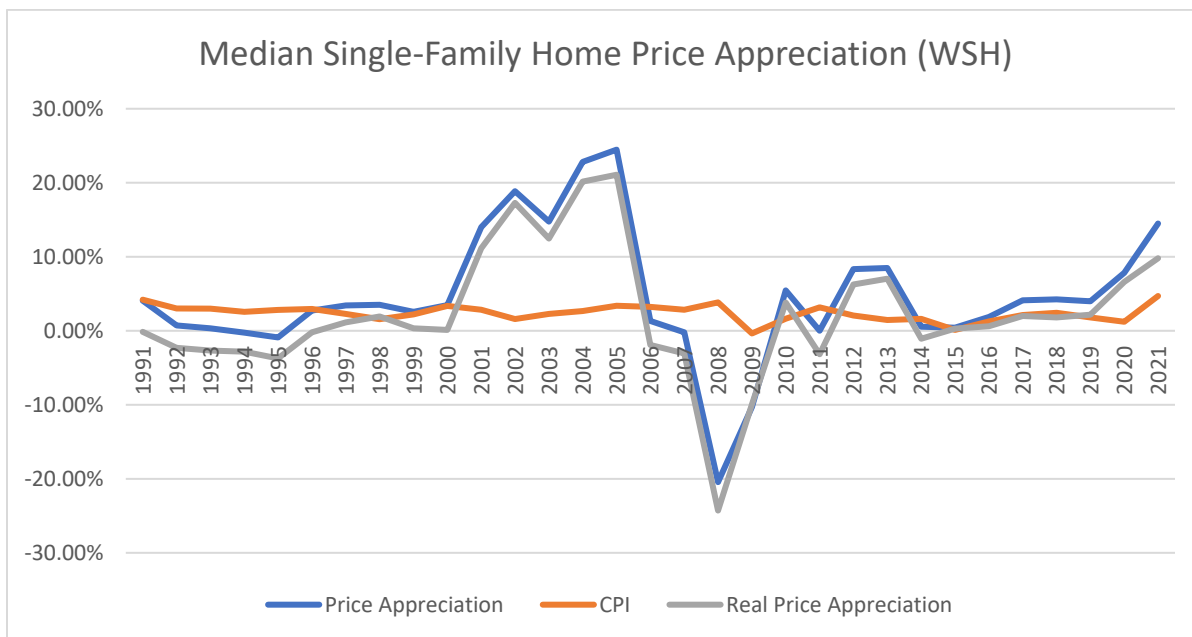


Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – WSH

	WSH		
	Price Appreciation	CPI	Real Price Appreciation
1991	4.07%	4.21%	-0.14%
1992	0.72%	3.01%	-2.29%
1993	0.32%	2.99%	-2.67%
1994	-0.26%	2.56%	-2.82%
1995	-0.91%	2.83%	-3.74%
1996	2.74%	2.95%	-0.21%
1997	3.43%	2.29%	1.14%
1998	3.50%	1.56%	1.94%
1999	2.55%	2.21%	0.34%
2000	3.47%	3.36%	0.11%
2001	13.99%	2.85%	11.14%
2002	18.85%	1.58%	17.27%
2003	14.75%	2.28%	12.47%

2004	22.82%	2.66%	20.16%
2005	24.47%	3.39%	21.08%
2006	1.32%	3.23%	-1.91%
2007	-0.21%	2.85%	-3.06%
2008	-20.45%	3.84%	-24.29%
2009	-10.30%	0.36%	-9.94%
2010	5.45%	1.64%	3.81%
2011	0.00%	3.16%	-3.16%
2012	8.33%	2.07%	6.26%
2013	8.49%	1.46%	7.03%
2014	0.55%	1.62%	-1.07%
2015	0.42%	0.12%	0.30%
2016	1.88%	1.26%	0.62%
2017	4.12%	2.13%	1.99%
2018	4.25%	2.44%	1.81%
2019	3.99%	1.81%	2.18%
2020	7.82%	1.23%	6.59%
2021	14.49%	4.70%	9.79%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 4.67% every year.
- The real price appreciation averaged 2.28% every year.

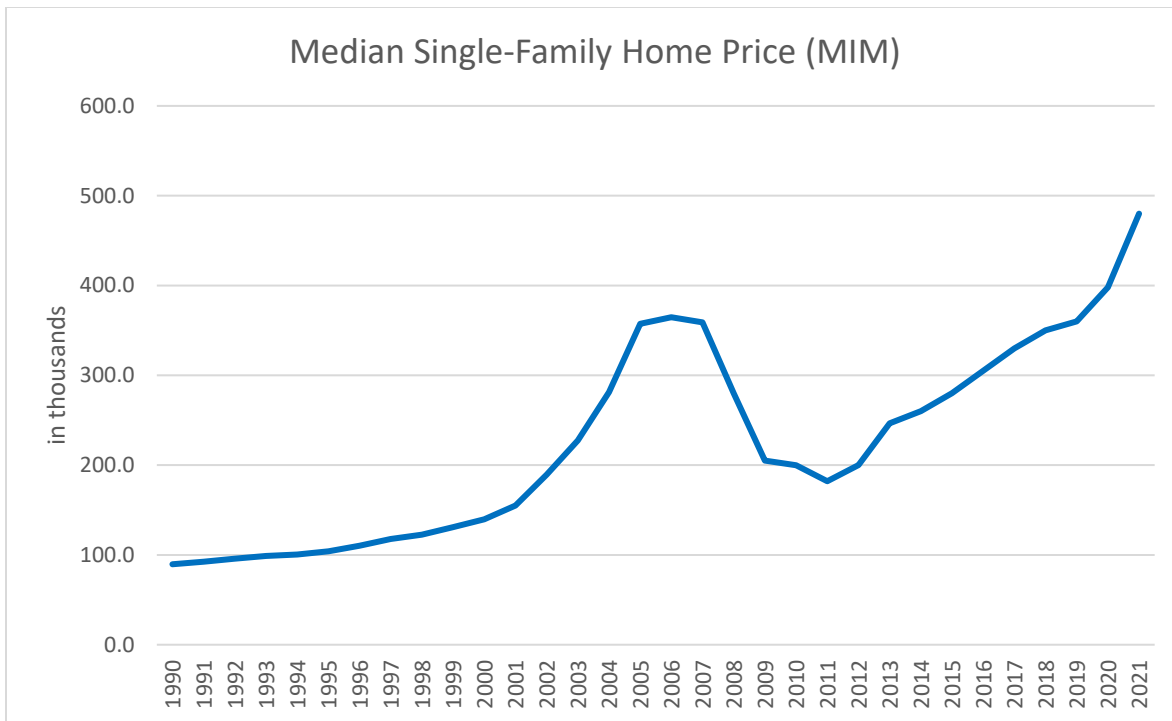
Median Single-Family Home Prices and the Average Length of Homeownership

	WSH
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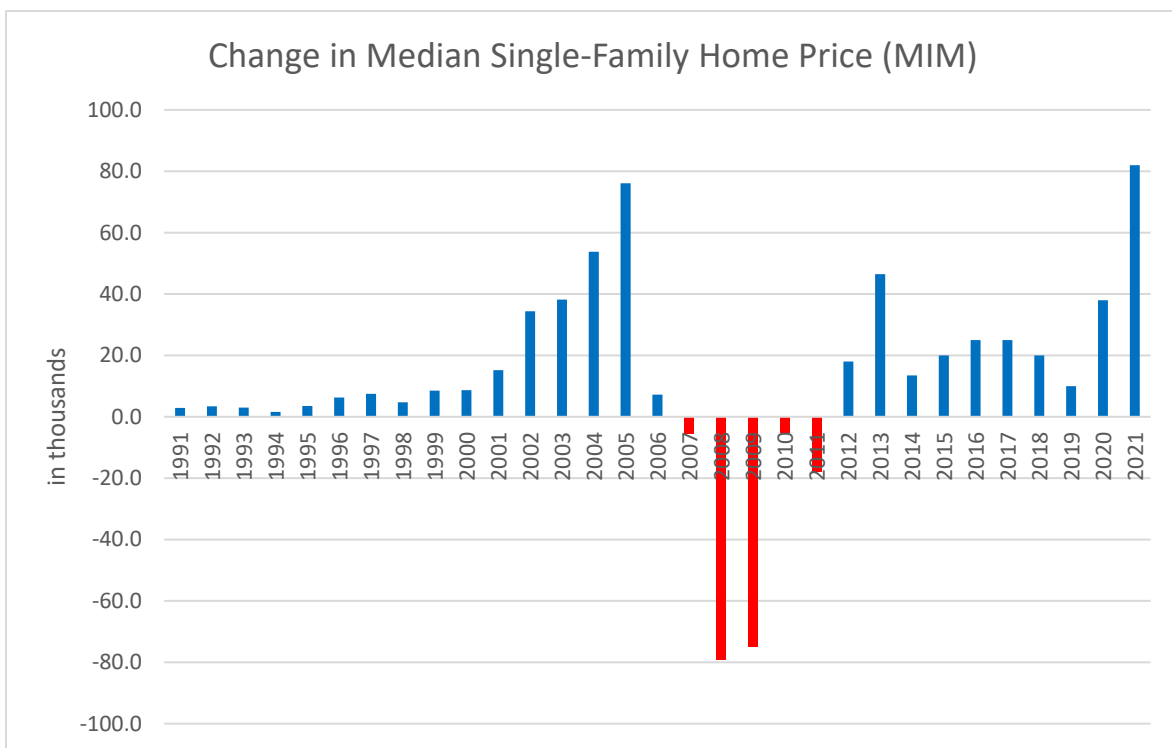
1990 to 2000	31.4
1991 to 2001	50.4
1992 to 2002	87.7
1993 to 2003	122.9
1994 to 2004	186.7
1995 to 2005	271.6
1996 to 2006	273.0
1997 to 2007	266.7
1998 to 2008	173.2
1999 to 2009	133.7
2000 to 2010	144.4
2001 to 2011	119.4
2002 to 2012	107.9
2003 to 2013	101.9
2004 to 2014	40.6
2005 to 2015	-41.3
2006 to 2016	-39.7
2007 to 2017	-22.7
2008 to 2018	82.4
2009 to 2019	134.5
2010 to 2020	152.3
2011 to 2021	221.2

- Over a 30-year period, there were three years where the median single-family home price was less 10 years later..
 - 2005, 2006, and 2007
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Washington-Arlington-Alexandria, DC-VA-MD-WV was \$142,200.

Appendix G: Miami-Fort Lauderdale-Pompano Beach, FL (MIM)



Median single-family home price from 1990-2021.



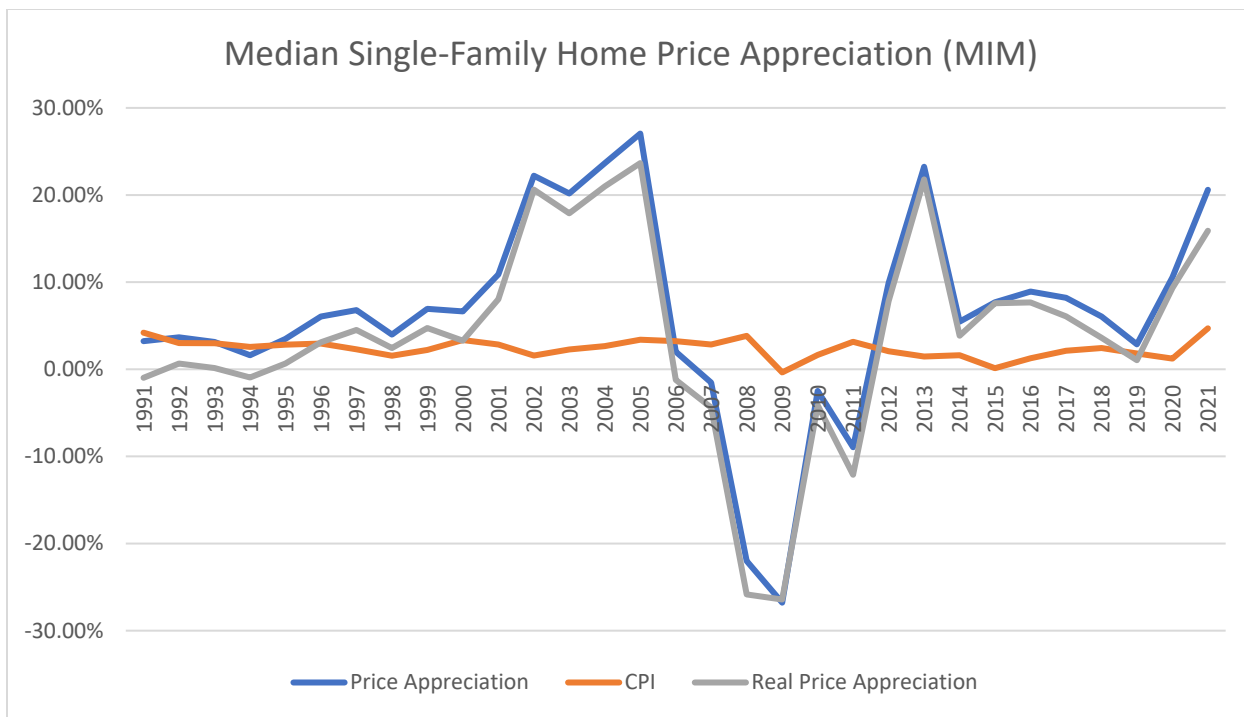
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – MIM

	MIM	
	Price Appreciation	Real Price Appreciation
	CPI	

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1991	3.24%	4.21%	-0.97%
1992	3.68%	3.01%	0.67%
1993	3.13%	2.99%	0.14%
1994	1.62%	2.56%	-0.94%
1995	3.48%	2.83%	0.65%
1996	6.06%	2.95%	3.11%
1997	6.80%	2.29%	4.51%
1998	3.99%	1.56%	2.43%
1999	6.94%	2.21%	4.73%
2000	6.64%	3.36%	3.28%
2001	10.88%	2.85%	8.03%
2002	22.21%	1.58%	20.63%
2003	20.18%	2.28%	17.90%
2004	23.65%	2.66%	20.99%
2005	27.05%	3.39%	23.66%
2006	2.01%	3.23%	-1.22%
2007	-1.54%	2.85%	-4.39%
2008	-22.01%	3.84%	-25.85%
2009	-26.79%	-0.36%	-26.43%
2010	-2.49%	1.64%	-4.13%
2011	-8.95%	3.16%	-12.11%
2012	9.89%	2.07%	7.82%
2013	23.25%	1.46%	21.79%
2014	5.48%	1.62%	3.86%
2015	7.69%	0.12%	7.57%
2016	8.93%	1.26%	7.67%
2017	8.20%	2.13%	6.07%
2018	6.06%	2.44%	3.62%
2019	2.86%	1.81%	1.05%
2020	10.56%	1.23%	9.33%
2021	20.60%	4.70%	15.90%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 6.24% every year.
- The real price appreciation averaged 3.85% every year.

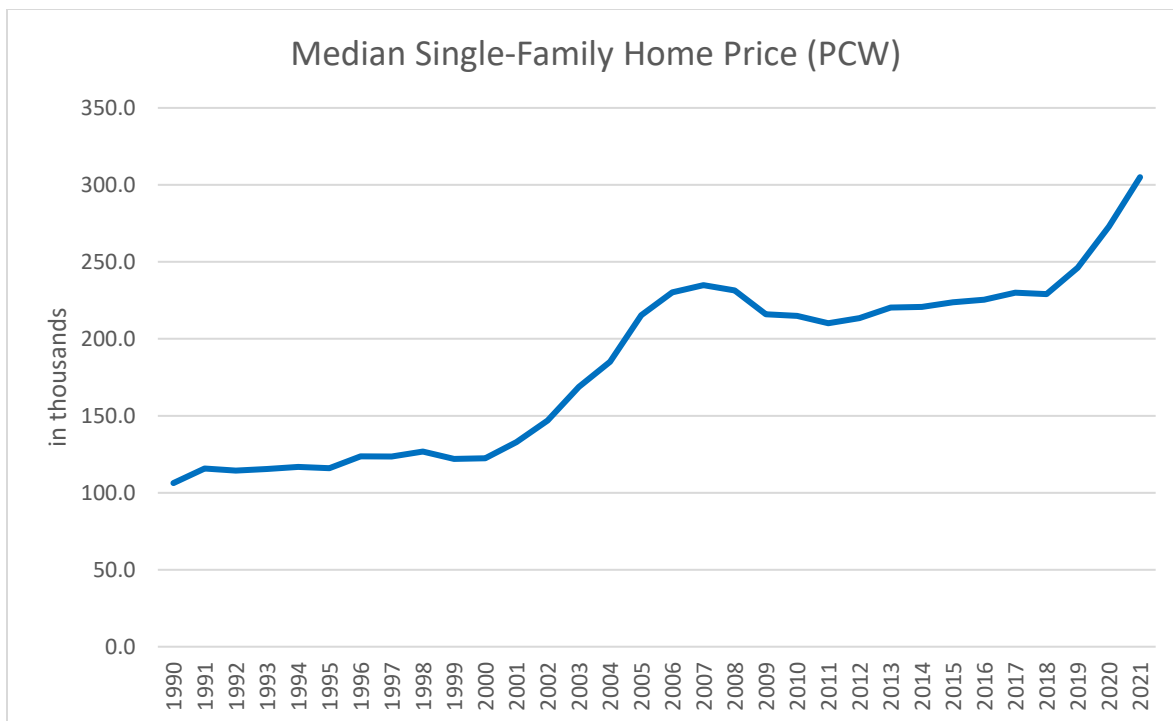
Median Single-Family Home Prices and the Average Length of Homeownership

	MIM
1990 to 2000	50.1
1991 to 2001	62.4
1992 to 2002	93.4

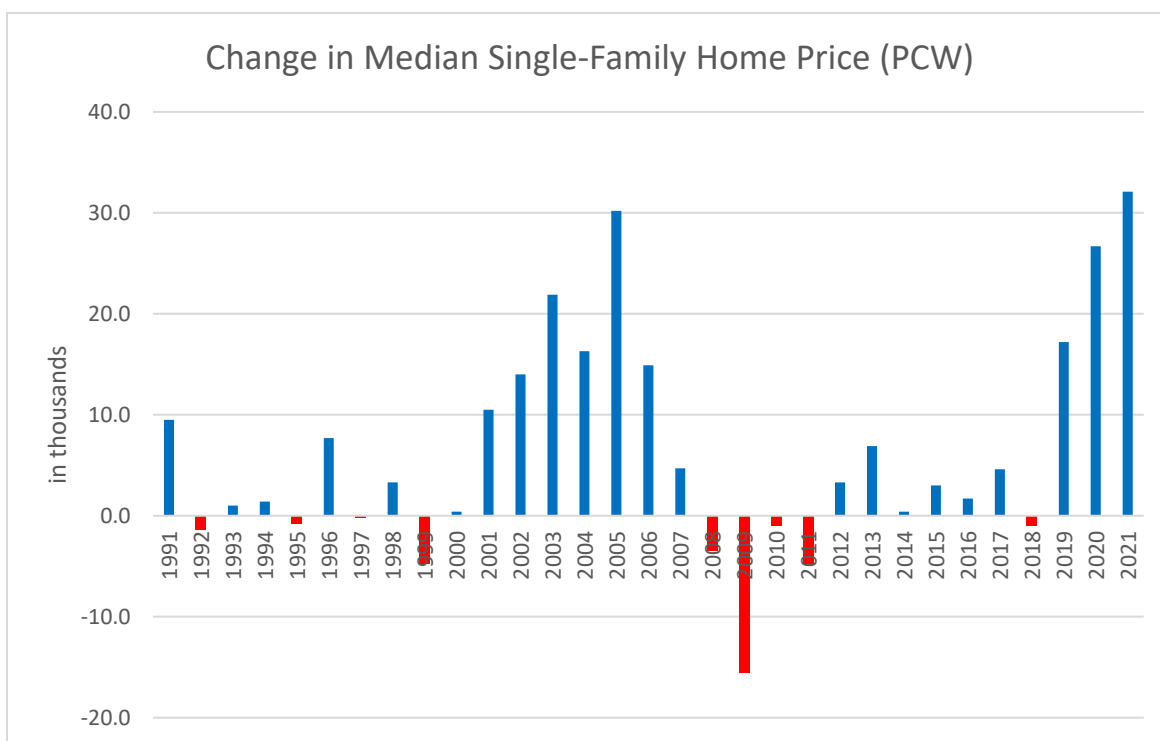
1993 to 2003	128.6
1994 to 2004	180.8
1995 to 2005	253.4
1996 to 2006	254.3
1997 to 2007	241.2
1998 to 2008	157.5
1999 to 2009	74.0
2000 to 2010	60.2
2001 to 2011	27.1
2002 to 2012	10.7
2003 to 2013	19.0
2004 to 2014	-21.3
2005 to 2015	-77.4
2006 to 2016	-59.6
2007 to 2017	-29.0
2008 to 2018	70.0
2009 to 2019	155.0
2010 to 2020	198.1
2011 to 2021	298.0

- Over a 30-year period, there were four years where the median single-family home price was less 10 years later..
 - 2004, 2005, 2006, and 2007
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Miami-Fort Lauderdale-Pompano Beach, FL was \$129,700.

Appendix H: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (PCW)



Median single-family home price from 1990-2021.



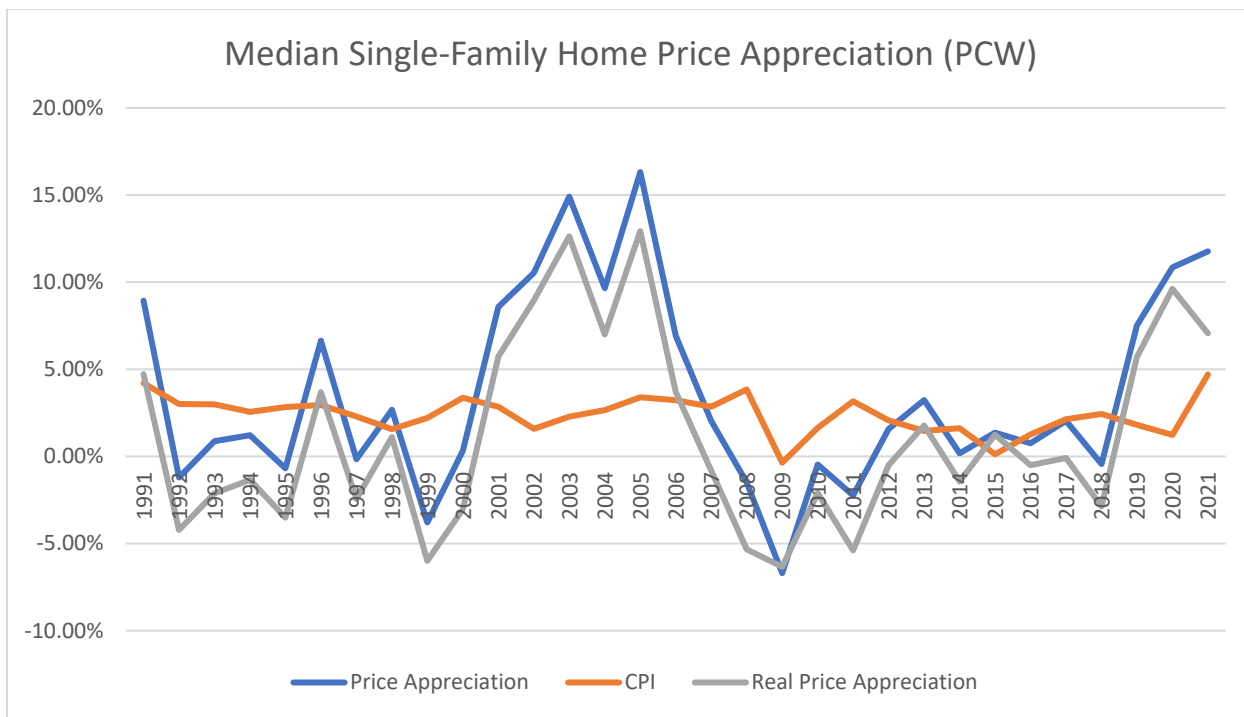
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Price Appreciation of Median Single-Family Home Price – PCW

	PCW		
	Price Appreciation	CPI	Real Price Appreciation
1991	8.94%	4.21%	4.73%

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1992	-1.21%	3.01%	-4.22%
1993	0.87%	2.99%	-2.12%
1994	1.21%	2.56%	-1.35%
1995	-0.68%	2.83%	-3.51%
1996	6.64%	2.95%	3.69%
1997	-0.16%	2.29%	-2.45%
1998	2.67%	1.56%	1.11%
1999	-3.79%	2.21%	-6.00%
2000	0.33%	3.36%	-3.03%
2001	8.58%	2.85%	5.73%
2002	10.53%	1.58%	8.95%
2003	14.91%	2.28%	12.63%
2004	9.66%	2.66%	7.00%
2005	16.32%	3.39%	12.93%
2006	6.92%	3.23%	3.69%
2007	2.04%	2.85%	-0.81%
2008	-1.49%	3.84%	-5.33%
2009	-6.70%	-0.36%	-6.34%
2010	-0.46%	1.64%	-2.10%
2011	-2.23%	3.16%	-5.39%
2012	1.57%	2.07%	-0.50%
2013	3.23%	1.46%	1.77%
2014	0.18%	1.62%	-1.44%
2015	1.36%	0.12%	1.24%
2016	0.76%	1.26%	-0.50%
2017	2.04%	2.13%	-0.09%
2018	-0.43%	2.44%	-2.87%
2019	7.51%	1.81%	5.70%
2020	10.84%	1.23%	9.61%
2021	11.76%	4.70%	7.06%



The blue line indicates the change in price from the previous year and the orange line is the Consumer Price Index (CPI) as consumer price inflation—a percentage change from the previous year. The gray line is the real price appreciation, the percentage change in price less the consumer price inflation.

- The median single-family home price increased an average of 3.60% every year.
- The real price appreciation averaged 1.22% every year.

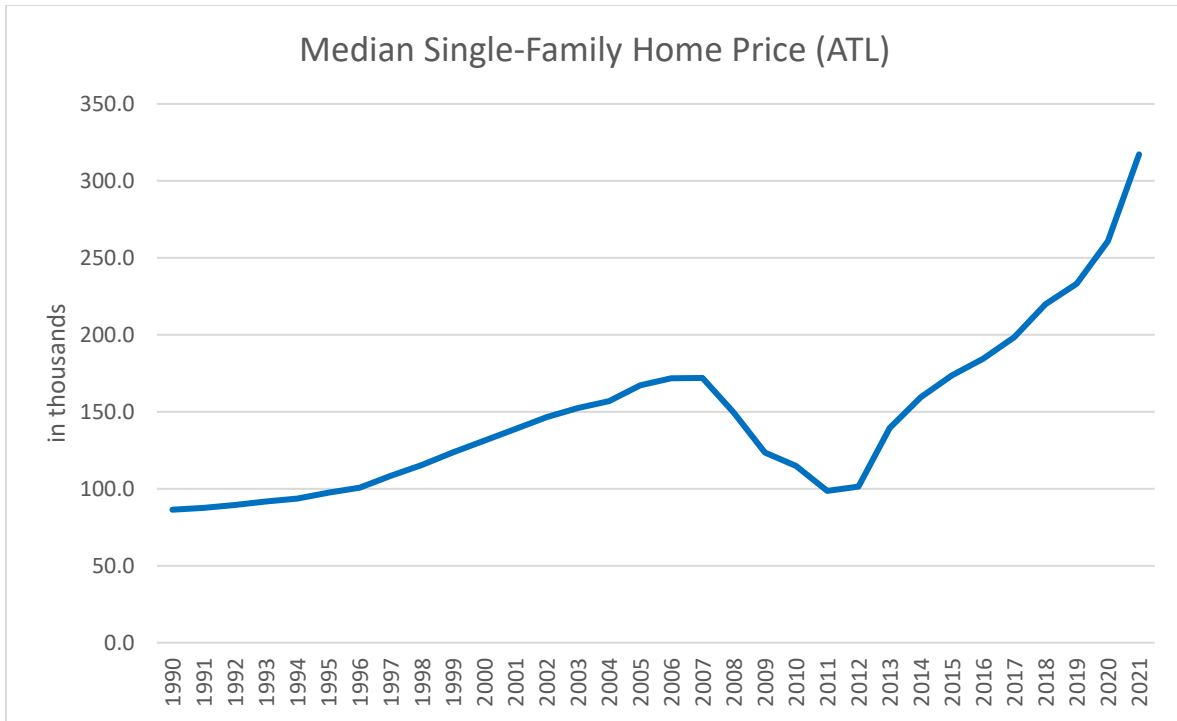
Median Single-Family Home Prices and the Average Length of Homeownership

	PCW
1990 to 2000	16.1
1991 to 2001	17.1
1992 to 2002	32.5

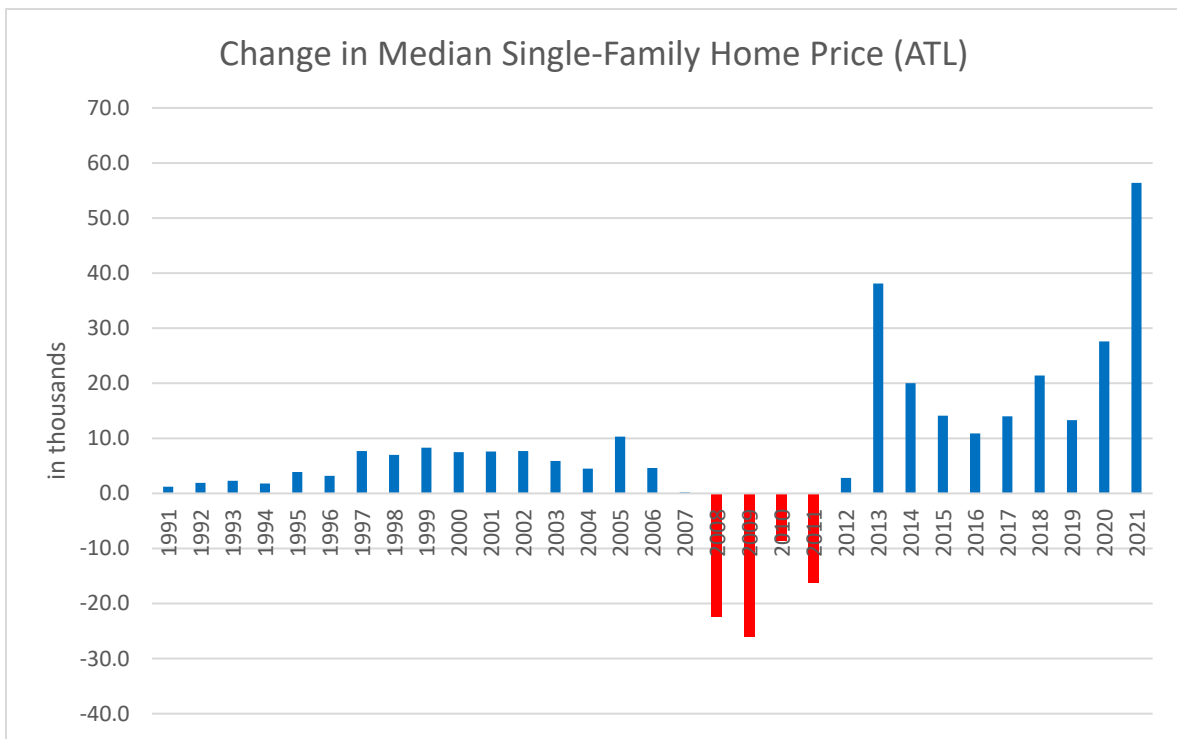
1993 to 2003	53.4
1994 to 2004	68.3
1995 to 2005	99.3
1996 to 2006	106.5
1997 to 2007	111.4
1998 to 2008	104.6
1999 to 2009	93.9
2000 to 2010	92.5
2001 to 2011	77.2
2002 to 2012	66.5
2003 to 2013	51.5
2004 to 2014	35.6
2005 to 2015	8.4
2006 to 2016	-4.8
2007 to 2017	-4.9
2008 to 2018	-2.4
2009 to 2019	30.3
2010 to 2020	58.0
2011 to 2021	94.9

- Over a 30-year period, there were three years where the median single-family home price was less 10 years later.
 - 2006, 2007, and 2008
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Philadelphia-Camden-Wilmington, PA-NJ-DE-MD was \$64,100.

Appendix I: Atlanta-Sandy Springs-Alpharetta, GA (ATL)



Median single-family home price from 1990-2021.



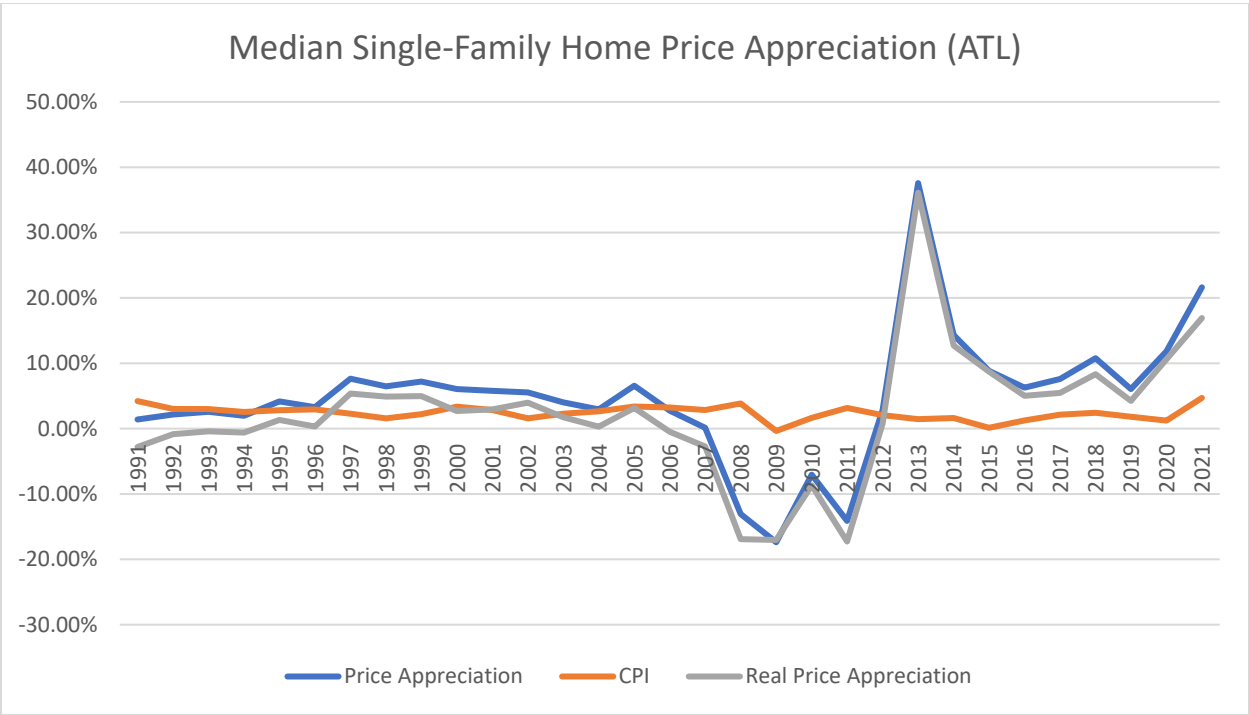
Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Inflation of Median Single-Family Home Price – ATL

	ATL		
	Price Appreciation	CPI	Real Price Appreciation

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1991	1.39%	4.21%	-2.82%
1992	2.17%	3.01%	-0.84%
1993	2.57%	2.99%	-0.42%
1994	1.96%	2.56%	-0.60%
1995	4.17%	2.83%	1.34%
1996	3.28%	2.95%	0.33%
1997	7.65%	2.29%	5.36%
1998	6.46%	1.56%	4.90%
1999	7.19%	2.21%	4.98%
2000	6.06%	3.36%	2.70%
2001	5.79%	2.85%	2.94%
2002	5.55%	1.58%	3.97%
2003	4.03%	2.28%	1.75%
2004	2.95%	2.66%	0.29%
2005	6.56%	3.39%	3.17%
2006	2.75%	3.23%	-0.48%
2007	0.12%	2.85%	-2.73%
2008	-13.08%	3.84%	-16.92%
2009	-17.39%	-0.36%	-17.03%
2010	-7.04%	1.64%	-8.68%
2011	-14.11%	3.16%	-17.27%
2012	2.84%	2.07%	0.77%
2013	37.57%	1.46%	36.11%
2014	14.34%	1.62%	12.72%
2015	8.84%	0.12%	8.72%
2016	6.28%	1.26%	5.02%
2017	7.59%	2.13%	5.46%
2018	10.78%	2.44%	8.34%
2019	6.05%	1.81%	4.24%
2020	11.84%	1.23%	10.61%
2021	21.63%	4.70%	16.93%



- The median single-family home price increased an average of 4.73% every year.
- The real price appreciation averaged 2.35 % every year.

Median Single-Family Home Prices and the Average Length of Homeownership

	ATL
1990 to 2000	44.8
1991 to 2001	51.2
1992 to 2002	57.0
1993 to 2003	60.6

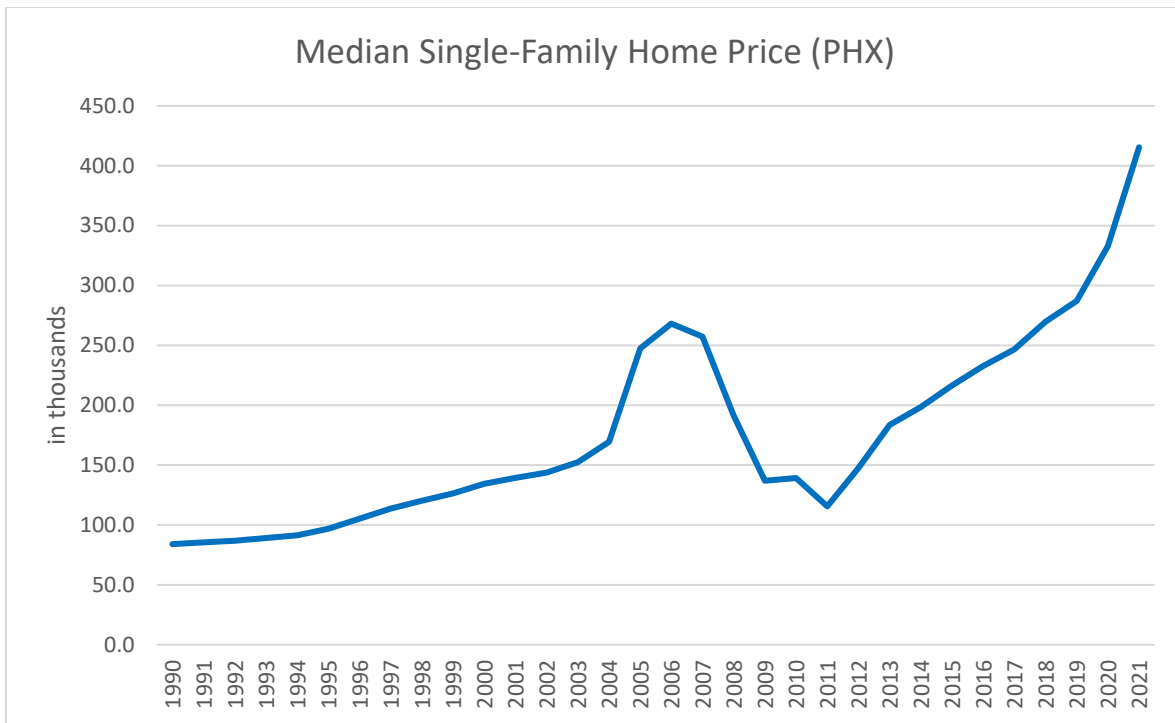
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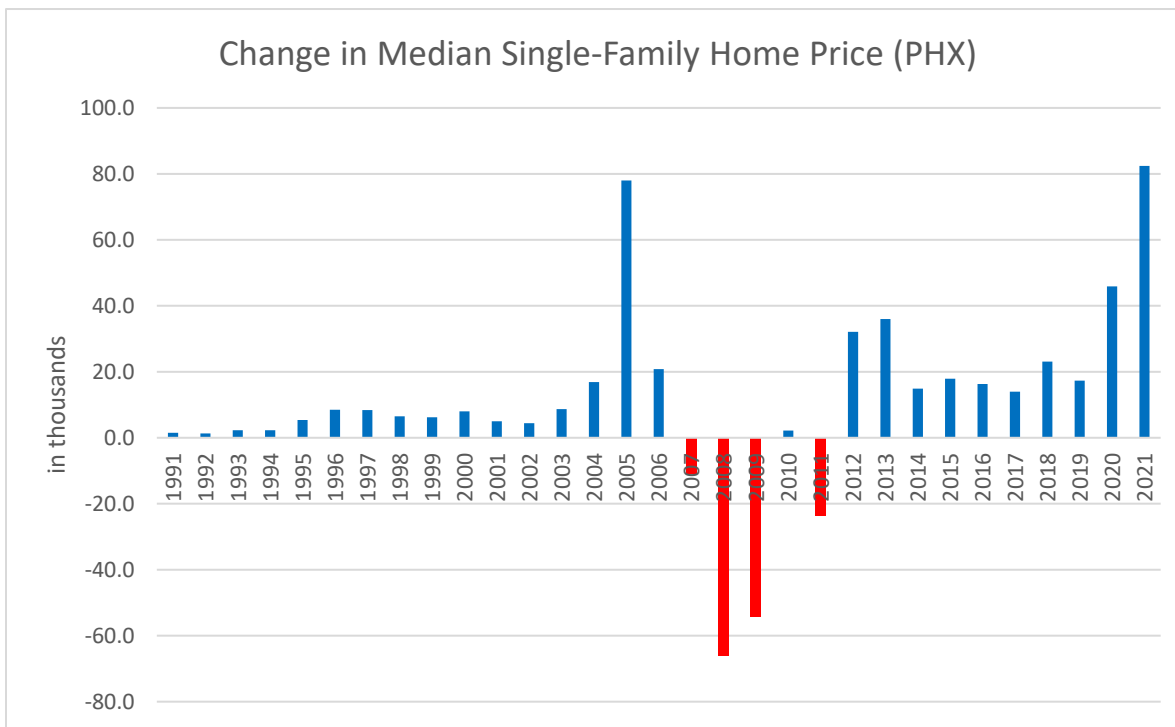
1994 to 2004	63.3
1995 to 2005	69.7
1996 to 2006	71.1
1997 to 2007	63.6
1998 to 2008	34.1
1999 to 2009	-0.2
2000 to 2010	-16.4
2001 to 2011	-40.2
2002 to 2012	-45.1
2003 to 2013	-12.9
2004 to 2014	2.6
2005 to 2015	6.4
2006 to 2016	12.7
2007 to 2017	26.5
2008 to 2018	70.4
2009 to 2019	109.7
2010 to 2020	146.0
2011 to 2021	218.6

- Over a 30-year period, there were five years where the median single-family home price was less 10 years later.
 - 1999, 2000, 2001, 2002, and 2003
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Atlanta-Sandy Springs-Alpharetta, GA was \$65,200.

Appendix J: Phoenix-Mesa-Chandler, AZ (PHX)



Median single-family home price from 1990-2021.

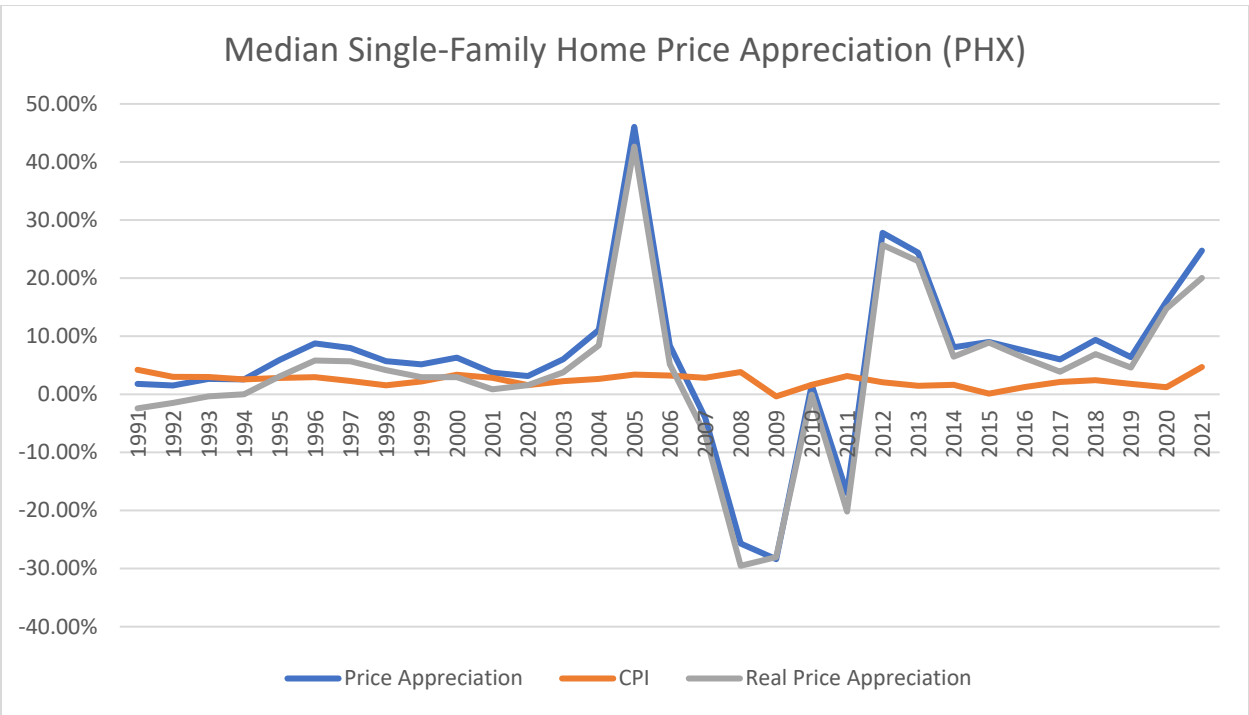


Difference in median single-family home price from 1990-2021. Increases in price from the previous year are displayed in blue, while decreases in price from the previous year are displayed in red.

Real Inflation of Median Single-Family Home Price – PHX

	PHX	
	Price Appreciation	Real Price Appreciation
	CPI	

1991	1.79%	4.21%	-2.42%
1992	1.52%	3.01%	-1.49%
1993	2.65%	2.99%	-0.34%
1994	2.58%	2.56%	0.02%
1995	5.91%	2.83%	3.08%
1996	8.78%	2.95%	5.83%
1997	7.98%	2.29%	5.69%
1998	5.72%	1.56%	4.16%
1999	5.16%	2.21%	2.95%
2000	6.33%	3.36%	2.97%
2001	3.72%	2.85%	0.87%
2002	3.16%	1.58%	1.58%
2003	6.05%	2.28%	3.77%
2004	11.08%	2.66%	8.42%
2005	46.04%	3.39%	42.65%
2006	8.41%	3.23%	5.18%
2007	-4.03%	2.85%	-6.88%
2008	-25.68%	3.84%	-29.52%
2009	-28.38%	-0.36%	-28.02%
2010	1.61%	1.64%	-0.03%
2011	-17.03%	3.16%	-20.19%
2012	27.79%	2.07%	25.72%
2013	24.39%	1.46%	22.93%
2014	8.12%	1.62%	6.50%
2015	9.02%	0.12%	8.90%
2016	7.53%	1.26%	6.27%
2017	6.02%	2.13%	3.89%
2018	9.36%	2.44%	6.92%
2019	6.41%	1.81%	4.60%
2020	15.99%	1.23%	14.76%
2021	24.74%	4.70%	20.04%



- The median single-family home price increased an average of 6.22% every year.
- The real price appreciation averaged 3.83% every year.

Median Single-Family Home Prices and the Average Length of Homeownership

	PHX
1990 to 2000	50.4
1991 to 2001	53.9
1992 to 2002	57.0
1993 to 2003	63.4

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1994 to 2004	78.0
1995 to 2005	150.6
1996 to 2006	162.9
1997 to 2007	143.7
1998 to 2008	71.1
1999 to 2009	10.6
2000 to 2010	4.8
2001 to 2011	-23.9
2002 to 2012	3.8
2003 to 2013	31.1
2004 to 2014	29.1
2005 to 2015	-31.0
2006 to 2016	-35.5
2007 to 2017	-10.7
2008 to 2018	78.5
2009 to 2019	150.1
2010 to 2020	193.8
2011 to 2021	299.9

- Over a 30-year period, there were four years where the median single-family home price was less 10 years later.
 - 2001, 2005, 2006 and 2007
- Aside from these negative periods, the average price increase of a single-family home across a 10-year period in Phoenix-Mesa-Chandler, AZ was \$90,700.

Top 50 MSAs by Population Size (Descending)

1. New York-Newark-Jersey City, NY-NJ-PA Metro Area (NYT)
2. Los Angeles-Long Beach-Anaheim, CA Metro Area (LLG)
3. Chicago-Naperville-Elgin, IL-IN-WI Metro Area (CHI)
4. Dallas-Fort Worth-Arlington, TX Metro Area (DFW)
5. Houston-The Woodlands-Sugar Land, TX Metro Area (HTN)
6. Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area (WSH)
7. Miami-Fort Lauderdale-Pompano Beach, FL Metro Area (MIM)
8. Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metro Area (PCW)
9. Atlanta-Sandy Springs-Alpharetta, GA Metro Area (ATL)
10. Phoenix-Mesa-Chandler, AZ Metro Area (PHX)
11. Boston-Cambridge-Newton, MA-NH Metro Area (BOS)
12. San Francisco-Oakland-Berkeley, CA Metro Area (SFC)
13. Riverside-San Bernardino-Ontario, CA Metro Area (RSB)
14. Detroit-Warren-Dearborn, MI Metro Area (DWL)

15. Seattle-Tacoma-Bellevue, WA Metro Area (STW)
16. Minneapolis-St. Paul-Bloomington, MN-WI Metro Area (MSP)
17. San Diego-Chula Vista-Carlsbad, CA Metro Area (SDI)
18. Tampa-St. Petersburg-Clearwater, FL Metro Area (TMA)
19. Denver-Aurora-Lakewood, CO Metro Area (DNV)
20. St. Louis, MO-IL Metro Area (STL)
21. Baltimore-Columbia-Towson, MD Metro Area (BTM)
22. Charlotte-Concord-Gastonia, NC-SC Metro Area (CGR)
23. Orlando-Kissimmee-Sanford, FL Metro Area (ORL)
24. San Antonio-New Braunfels, TX Metro Area (SAT)
25. Portland-Vancouver-Hillsboro, OR-WA Metro Area (POR)
26. Sacramento-Roseville-Folsom, CA Metro Area (SYO)
27. Pittsburgh, PA Metro Area (PIT)
28. Las Vegas-Henderson-Paradise, NV Metro Area (LSV)
29. Austin-Round Rock-Georgetown, TX Metro Area (AUS)
30. Cincinnati, OH-KY-IN Metro Area (CTI)
31. Kansas City, MO-KS Metro Area (KNC)
32. Columbus, OH Metro Area (COL)
33. Indianapolis-Carmel-Anderson, IN Metro Area (IND)
34. Cleveland-Elyria, OH Metro Area (CVL)
35. San Jose-Sunnyvale-Santa Clara, CA Metro Area (SSC)
36. Nashville-Davidson--Murfreesboro--Franklin, TN Metro Area (NVL)
37. Virginia Beach-Norfolk-Newport News, VA-NC Metro Area (NFK)
38. Providence-Warwick, RI-MA Metro Area (PRI)
39. Milwaukee-Waukesha, WI Metro Area (MWK)
40. Jacksonville, FL Metro Area (JAX)
41. Oklahoma City, OK Metro Area (OKC)
42. Raleigh-Cary, NC Metro Area (RCY)
43. Memphis, TN-MS-AR Metro Area (MPH)
44. Richmond, VA Metro Area (RCP)
45. New Orleans-Metairie, LA Metro Area (NOR)
46. Louisville/Jefferson County, KY-IN Metro Area (LOI)
47. Salt Lake City, UT Metro Area (SLC)
48. Hartford-East Hartford-Middletown, CT Metro Area (HTF)
49. Buffalo-Cheektowaga, NY Metro Area (BUF)
50. Birmingham-Hoover, AL Metro Area (BIR)