



May 2024

RENTAL HOUSING

Information on Institutional Investment in Single- Family Homes

Accessible Version

GAO Highlights

View [GAO-24-106643](#). For more information, contact Jill Naamane at (202) 512-8678 or naamanej@gao.gov.

Highlights of [GAO-24-106643](#), a report to congressional committees

May 2024

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Why GAO Did This Study

Millions of homeowners defaulted on their mortgages during the 2007–2009 financial crisis. Institutional investors (i.e., companies that own a large number of single-family rental homes) grew large portfolios of single-family homes and converted them to rental properties to help meet growing demand for rental housing. However, more recently, low housing supply and elevated housing prices and rents have raised questions about the effect of institutional investors on the housing market and renters.

The Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2023, includes a provision for GAO to report on the prevalence and types of institutional investors and their effect on single-family rental housing.

This report provides information on (1) institutional investors in single-family rental housing and (2) reported effects of institutional investment on housing markets and residents. GAO reviewed 74 studies that examined institutional investment in single-family housing, including scholarly articles and research reports from governmental and nongovernmental organizations. GAO also interviewed agency officials and representatives of consumer advocacy, industry, and research organizations selected for their knowledge in this area.

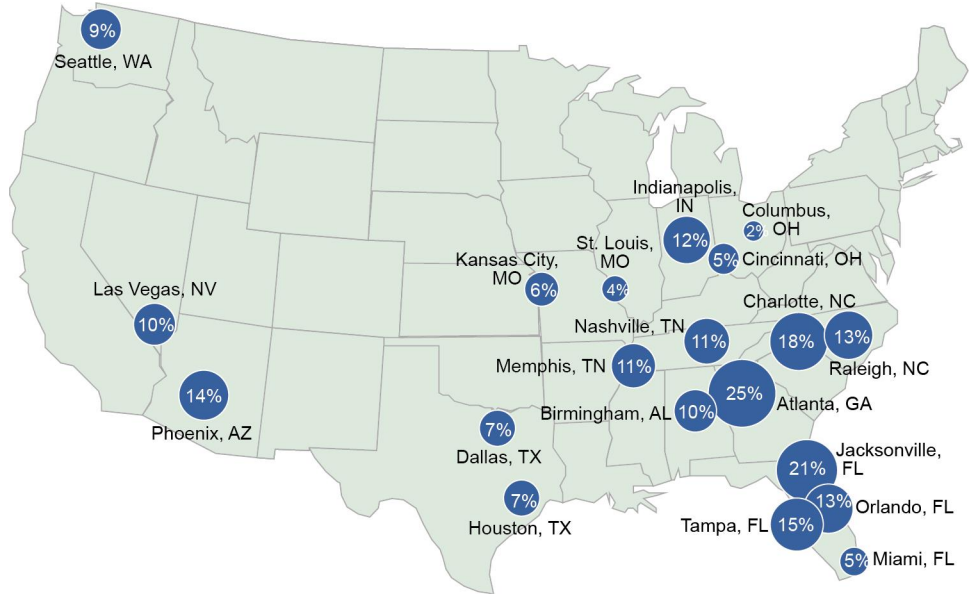
What GAO Found

Large “institutional” investors emerged in the wake of the 2007–2009 financial crisis, bulk-purchasing foreclosed homes at auction and converting them into rental housing. Aided by access to capital through various sources, institutional investors had a funding advantage over smaller investors at a time when mortgage lenders were generally reducing lending. Additionally, technological advancements allowed companies to acquire and manage large portfolios of single-family homes more easily.

Institutional investors initially relied on bulk purchases but then shifted to making smaller-scale purchases, merging with other investors, or building homes for rent. These activities have contributed to their growth over time. Studies GAO reviewed found that no investor owned 1,000 or more single-family rental homes as of late 2011. However, by 2015, institutional investors collectively owned an estimated 170,000-300,000 homes. As of June 2022, institutional investors of

varying sizes made up a large portion of the single-family rental market in many cities, particularly in Sunbelt states.

Estimated Share of the Single-Family Rental Market Held by Investors with over 1,000 Homes in Selected Areas, as of 2022



Source: GAO analysis of Urban Institute data. | GAO-24-106643

Accessible Data for Estimated Share of the Single-Family Rental Market Held by Investors with over 1,000 Homes in Selected Areas, as of 2022

Mega Institutional Investor

20 Largest MSAs for SFR	SFR market share
Atlanta-Sandy Springs-Alpharetta, GA	25.0%
Birmingham-Hoover, AL	9.8%
Charlotte-Concord-Gastonia, NC-SC	18.3%
Cincinnati, OH-KY-IN	5.3%
Columbus, OH	2.3%
Dallas-Fort Worth-Arlington, TX	7.1%
Houston-The Woodlands-Sugar Land, TX	7.1%
Indianapolis-Carmel-Anderson, IN	12.3%
Jacksonville, FL	20.5%
Kansas City, MO-KS	6.3%
Las Vegas-Henderson-Paradise, NV	9.6%
Memphis, TN-MS-AR	10.7%
Miami-Fort Lauderdale-Pompano Beach, FL	4.5%

20 Largest MSAs for SFR	SFR market share
Nashville-Davidson-Murfreesboro-Franklin, TN	11.4%
Orlando-Kissimmee-Sanford, FL	13.2%
Phoenix-Mesa-Chandler, AZ	13.6%
Raleigh-Cary, NC	12.8%
Seattle-Tacoma-Bellevue, WA	9.1%
St. Louis, MO-IL	3.8%
Tampa-St. Petersburg-Clearwater, FL	15.3%
Total, 20 largest MSAs for SFR	10.7%

Source: GAO analysis of Urban Institute data. | GAO-24-106643

Note: For more details, see fig.6 in GAO-24-106643.

Studies GAO reviewed found that institutional investors may have contributed to increasing home prices and rents and helped stabilize neighborhoods following the financial crisis. However, information on these investors' effects on homeownership opportunities and tenants (e.g., eviction rates) was unclear because data are limited and there is no consistent definition of institutional investor.

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Abbreviation

REO Real Estate Owned

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May 22, 2024

The Honorable Brian Schatz
Chair
The Honorable Cindy Hyde-Smith
Ranking Member
Subcommittee on Transportation, Housing and Urban Development,
and Related Agencies
Committee on Appropriations
United States Senate

The Honorable Steve Womack
Chairman
The Honorable Mike Quigley
Ranking Member
Subcommittee on Transportation, Housing and Urban Development,
and Related Agencies
Committee on Appropriations
House of Representatives

Millions of homeowners defaulted on their mortgages during and immediately following the financial crisis of 2007–2009. Large “institutional” investors with access to cash or low-cost financing purchased foreclosed single-family homes at a discount at auctions across the country.¹ These investors were able to grow large portfolios of single-family housing and help meet the growing demand for rental housing. In the years since the financial crisis, the share of single-family rental housing owned by investors of all sizes has grown. Low supply and elevated housing prices and rents have raised questions about the effects that investors—particularly large institutional investors—have on the housing market and renters.

The Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2023, includes a provision for GAO to study and issue a report on the prevalence and location of institutional investors in single-family homes, the types of institutional investors involved, and the effects

¹Institutional investors are variously defined in the literature. We note specific definitions as applicable. However, they generally are the largest investors in the market. Unless otherwise noted, single-family housing refers to residences with one to four dwelling units. Apartments (or multifamily housing) are residences with five or more dwelling units.

of such investments on both the housing market and on the tenants residing in the homes. This report provides information on (1) institutional investors in single-family rental housing, and (2) reported effects of this investment on housing markets and residents.

To address both objectives, we conducted a literature search of research published from 2005–2023 that examined institutional investment in single-family rental housing. We reviewed and summarized the findings of the 74 studies determined to be relevant to our objectives and evaluated them to ensure the quality and robustness of their methodologies. The bibliography at the end of this report lists these studies.

We also interviewed officials from the Department of Housing and Urban Development, the Federal Housing Finance Agency, Fannie Mae, Freddie Mac, one consumer advocacy organization, two organizations of industry professionals, and three research organizations. We selected these entities because the literature and our interviews identified them as having knowledge of single-family rental housing. To identify the largest institutional investors in single-family rental housing as of the end of 2022, we reviewed relevant literature, industry reports, and company websites. We also used these sources to identify and describe the investment strategies of these companies.

Finally, we analyzed market data from the Federal Reserve Bank of St. Louis to provide background information on homeownership and rentership rates, home prices and rents, borrower credit scores, and mortgage interest rates. We found these data to be reliable for describing these trends. See appendix I for more information on our scope and methodology.

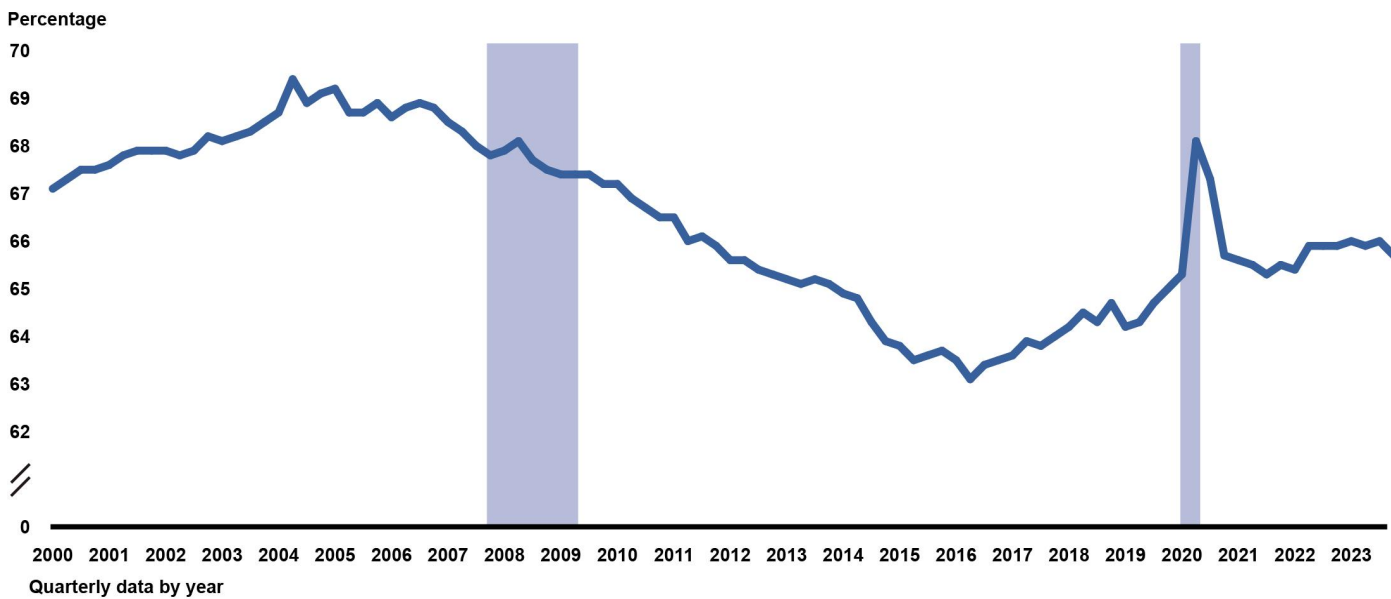
We conducted this performance audit from February 2023 to May 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Housing Market Trends

The national homeownership rate peaked at about 70 percent in the years before the financial crisis and reached a 30-year low (approximately 63 percent) in 2016. Since 2016, the rate has risen, reaching around 66 percent toward the end of 2023 (see fig. 1).

Figure 1: U.S. Homeownership Rate, 2000–2023



Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Accessible Data for Figure 1: U.S. Homeownership Rate, 2000–2023

observation_date	Homeownership rate (%)
2000-01-01	67.1
2000-04-01	67.3
2000-07-01	67.5
2000-10-01	67.5
2001-01-01	67.6
2001-04-01	67.8
2001-07-01	67.9
2001-10-01	67.9

Letter

observation_date	Homeownership rate (%)
2002-01-01	67.9
2002-04-01	67.8
2002-07-01	67.9
2002-10-01	68.2
2003-01-01	68.1
2003-04-01	68.2
2003-07-01	68.3
2003-10-01	68.5
2004-01-01	68.7
2004-04-01	69.4
2004-07-01	68.9
2004-10-01	69.1
2005-01-01	69.2
2005-04-01	68.7
2005-07-01	68.7
2005-10-01	68.9
2006-01-01	68.6
2006-04-01	68.8
2006-07-01	68.9
2006-10-01	68.8
2007-01-01	68.5
2007-04-01	68.3
2007-07-01	68.0
2007-10-01	67.8
2008-01-01	67.9
2008-04-01	68.1
2008-07-01	67.7
2008-10-01	67.5
2009-01-01	67.4
2009-04-01	67.4
2009-07-01	67.4
2009-10-01	67.2
2010-01-01	67.2
2010-04-01	66.9
2010-07-01	66.7
2010-10-01	66.5
2011-01-01	66.5

Letter

observation_date	Homeownership rate (%)
2011-04-01	66.0
2011-07-01	66.1
2011-10-01	65.9
2012-01-01	65.6
2012-04-01	65.6
2012-07-01	65.4
2012-10-01	65.3
2013-01-01	65.2
2013-04-01	65.1
2013-07-01	65.2
2013-10-01	65.1
2014-01-01	64.9
2014-04-01	64.8
2014-07-01	64.3
2014-10-01	63.9
2015-01-01	63.8
2015-04-01	63.5
2015-07-01	63.6
2015-10-01	63.7
2016-01-01	63.5
2016-04-01	63.1
2016-07-01	63.4
2016-10-01	63.5
2017-01-01	63.6
2017-04-01	63.9
2017-07-01	63.8
2017-10-01	64.0
2018-01-01	64.2
2018-04-01	64.5
2018-07-01	64.3
2018-10-01	64.7
2019-01-01	64.2
2019-04-01	64.3
2019-07-01	64.7
2019-10-01	65.0
2020-01-01	65.3
2020-04-01	68.1

observation_date	Homeownership rate (%)
2020-07-01	67.3
2020-10-01	65.7
2021-01-01	65.6
2021-04-01	65.5
2021-07-01	65.3
2021-10-01	65.5
2022-01-01	65.4
2022-04-01	65.9
2022-07-01	65.9
2022-10-01	65.9
2023-01-01	66.0
2023-04-01	65.9
2023-07-01	66.0
2023-10-01	65.7

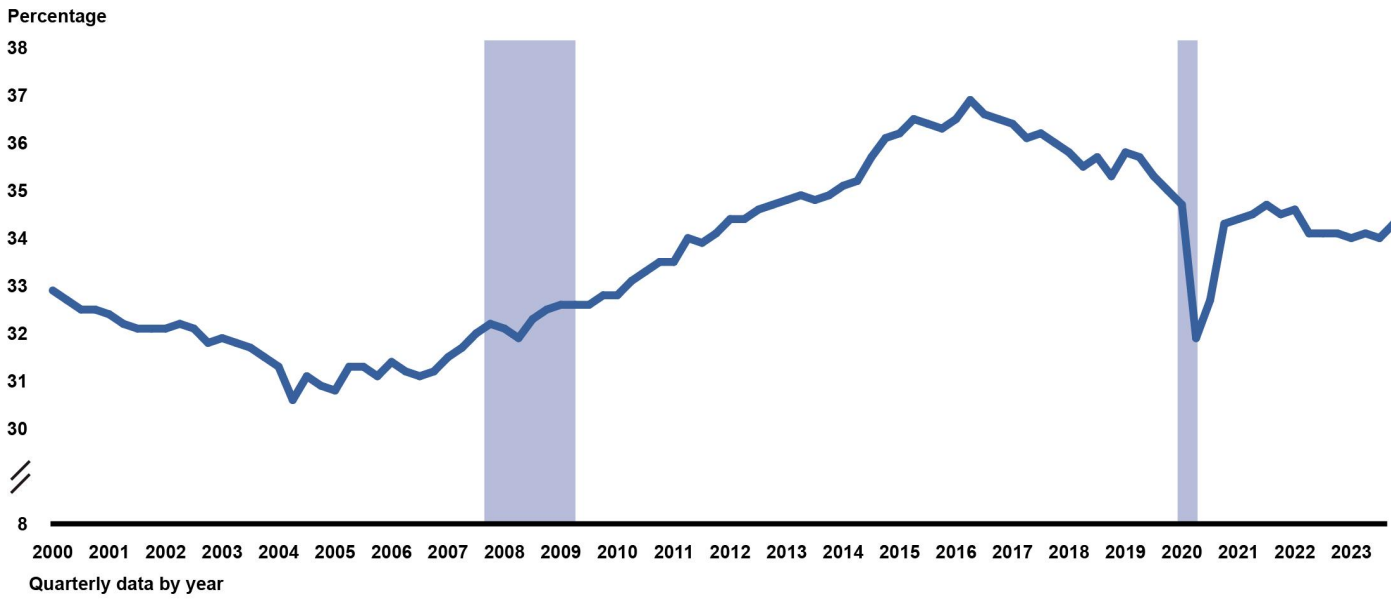
Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Note: The homeownership rate is the proportion of total households (owners and renters) who own a home. Underlying data are from the U.S. Census Bureau, Homeownership Rate in the United States. Shaded areas indicate U.S. recessions. According to Census, estimates for 2020 likely are subject to significant nonresponse bias resulting to data collection difficulties arising from the COVID-19 pandemic. These estimates should be read with caution as they may be inconsistent with benchmarks and administrative data or may have changed in unexpected magnitudes.

Conversely, the rentership rate steadily increased following the financial crisis, dipping slightly and then recovering following the COVID-19 recession (see fig. 2). As we reported in 2020, the estimated rentership rate fell below 33 percent in 2004—the lowest in U.S. history—then climbed to 37 percent in 2013, a rate not seen since the 1960s. By 2017, almost 7 million more households rented their homes than in 2001, which brought the rentership rate to an estimated 36 percent.²

²See GAO, *Rental Housing: As More Households Rent, the Poorest Face Affordability and Housing Quality Challenges*, [GAO-20-427](#) (Washington, D.C.: May 27, 2020).

Figure 2: U.S. Rentership Rate, 2000–2023



Source: GAO analysis of FRED, Federal Reserve Bank of St. Louis data. | GAO-24-106643

Accessible Data for Figure 2: U.S. Rentership Rate, 2000–2023

observation_date	GAO calculated rentership rate (%)
2000-01-01	32.9
2000-04-01	32.7
2000-07-01	32.5
2000-10-01	32.5
2001-01-01	32.4
2001-04-01	32.2
2001-07-01	32.1
2001-10-01	32.1
2002-01-01	32.1
2002-04-01	32.2
2002-07-01	32.1
2002-10-01	31.8
2003-01-01	31.9
2003-04-01	31.8
2003-07-01	31.7
2003-10-01	31.5
2004-01-01	31.3

Letter

observation_date	GAO calculated rentership rate (%)
2004-04-01	30.6
2004-07-01	31.1
2004-10-01	30.9
2005-01-01	30.8
2005-04-01	31.3
2005-07-01	31.3
2005-10-01	31.1
2006-01-01	31.4
2006-04-01	31.2
2006-07-01	31.1
2006-10-01	31.2
2007-01-01	31.5
2007-04-01	31.7
2007-07-01	32.0
2007-10-01	32.2
2008-01-01	32.1
2008-04-01	31.9
2008-07-01	32.3
2008-10-01	32.5
2009-01-01	32.6
2009-04-01	32.6
2009-07-01	32.6
2009-10-01	32.8
2010-01-01	32.8
2010-04-01	33.1
2010-07-01	33.3
2010-10-01	33.5
2011-01-01	33.5
2011-04-01	34.0
2011-07-01	33.9
2011-10-01	34.1
2012-01-01	34.4
2012-04-01	34.4
2012-07-01	34.6
2012-10-01	34.7
2013-01-01	34.8
2013-04-01	34.9

Letter

observation_date	GAO calculated rentership rate (%)
2013-07-01	34.8
2013-10-01	34.9
2014-01-01	35.1
2014-04-01	35.2
2014-07-01	35.7
2014-10-01	36.1
2015-01-01	36.2
2015-04-01	36.5
2015-07-01	36.4
2015-10-01	36.3
2016-01-01	36.5
2016-04-01	36.9
2016-07-01	36.6
2016-10-01	36.5
2017-01-01	36.4
2017-04-01	36.1
2017-07-01	36.2
2017-10-01	36.0
2018-01-01	35.8
2018-04-01	35.5
2018-07-01	35.7
2018-10-01	35.3
2019-01-01	35.8
2019-04-01	35.7
2019-07-01	35.3
2019-10-01	35.0
2020-01-01	34.7
2020-04-01	31.9
2020-07-01	32.7
2020-10-01	34.3
2021-01-01	34.4
2021-04-01	34.5
2021-07-01	34.7
2021-10-01	34.5
2022-01-01	34.6
2022-04-01	34.1
2022-07-01	34.1

observation_date	GAO calculated rentership rate (%)
2022-10-01	34.1
2023-01-01	34.0
2023-04-01	34.1
2023-07-01	34.0
2023-10-01	34.3

Source: GAO analysis of FRED, Federal Reserve Bank of St. Louis data. | GAO-24-106643

Note: The rentership rate is the proportion of total households (owners and renters) who rent a home. Underlying data are from the U.S. Census Bureau, Homeownership Rate in the United States. Shaded areas indicate U.S. recessions. According to Census, estimates for 2020 likely are subject to significant nonresponse bias resulting to data collection difficulties arising from the COVID-19 pandemic. These estimates should be read with caution as they may be inconsistent with benchmarks and administrative data or may have changed in unexpected magnitudes.

Several factors account for trends in the number of homeowners and renters from 2000 through 2023, including changes in household demand, housing stock and supply, and prices and rents.

Household demand. As a result of the 2007–2009 financial crisis and ensuing housing crash, an estimated 3.8 million households lost their homes to foreclosure. Many of these households entered the rental market, driving up demand for rental housing.³

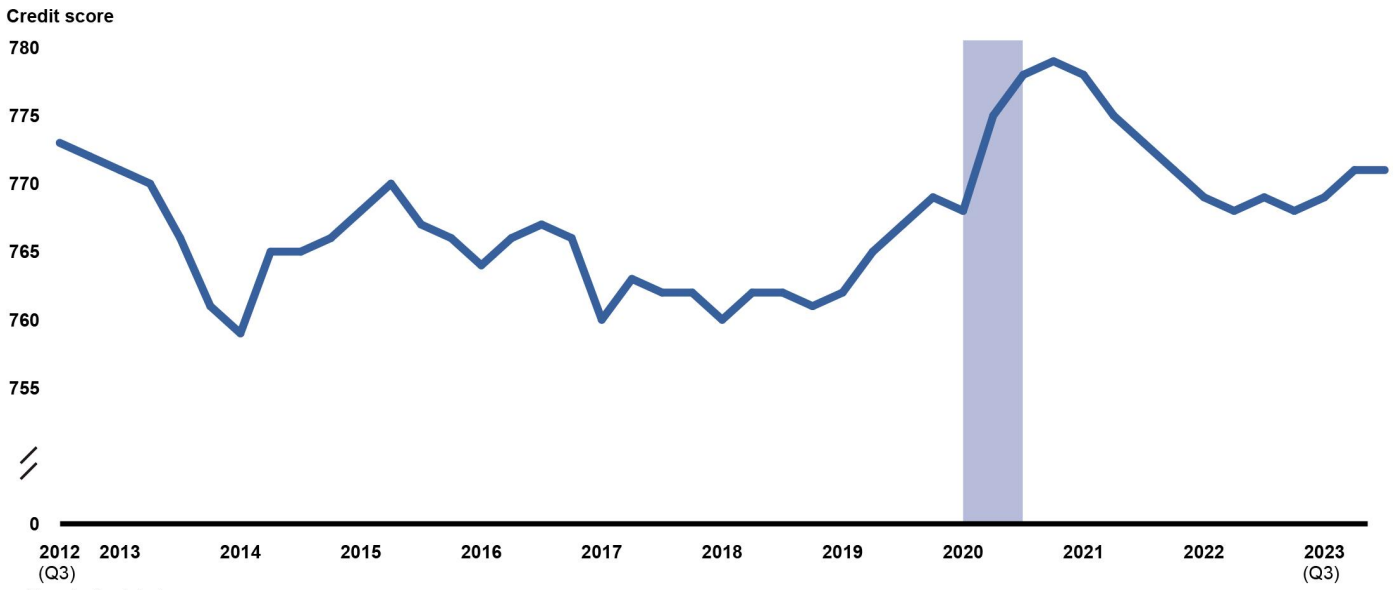
Tighter lending standards in the years since the financial crisis and the recent sharp increases in mortgage interest rates have also contributed to the steady increase in demand for rental housing. Mortgage originations (i.e., new mortgages) declined sharply in the years following the financial crisis.⁴ Additionally, the average borrower credit score at origination was

³See Sharada Dharmasankar and Bhashkar Mazumder, “Have Borrowers Recovered from Foreclosures during the Great Recession?” Chicago Fed Letter, no. 370 (2016). This estimate includes foreclosures from 2007 through 2010 and is based on data from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax and statistics from RealtyTrac.

⁴See Andrew Haughwout, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw, *Just Released: Releveraging the Consumer Credit Panel with Two New Charts* (New York, N.Y.: Liberty Street Economics and Federal Reserve Bank of New York, Aug. 13, 2015). The New York Fed Consumer Credit Panel is a database with information from consumer credit reports. Here we use the term “mortgage originations” consistent with the panel, which measured mortgage originations by the appearance of new mortgage balances, including refinanced mortgages, on consumer credit reports. Furthermore, the panel defines mortgage accounts to include mortgage installment loans, including first mortgages, and home equity installment loans, both of which are closed-end loans. The definition excludes home equity lines of credit.

719 in 2007.⁵ However, it has remained above 750 since 2012 (see fig. 3).

Figure 3: Average Mortgage Borrower Credit Scores at Origination for Large Bank Lenders, 2012–2023



Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Accessible Data for Figure 3: Average Mortgage Borrower Credit Scores at Origination for Large Bank Lenders, 2012–2023

observation_date	Credit score
2012-07-01	773
2012-10-01	772
2013-01-01	771
2013-04-01	770
2013-07-01	766
2013-10-01	761
2014-01-01	759
2014-04-01	765
2014-07-01	765
2014-10-01	766
2015-01-01	768

⁵Haughwout et al., *Just Released*.

observation_date	Credit score
2015-04-01	770
2015-07-01	767
2015-10-01	766
2016-01-01	764
2016-04-01	766
2016-07-01	767
2016-10-01	766
2017-01-01	760
2017-04-01	763
2017-07-01	762
2017-10-01	762
2018-01-01	760
2018-04-01	762
2018-07-01	762
2018-10-01	761
2019-01-01	762
2019-04-01	765
2019-07-01	767
2019-10-01	769
2020-01-01	768
2020-04-01	775
2020-07-01	778
2020-10-01	779
2021-01-01	778
2021-04-01	775
2021-07-01	773
2021-10-01	771
2022-01-01	769
2022-04-01	768
2022-07-01	769
2022-10-01	768
2023-01-01	769
2023-04-01	771
2023-07-01	771

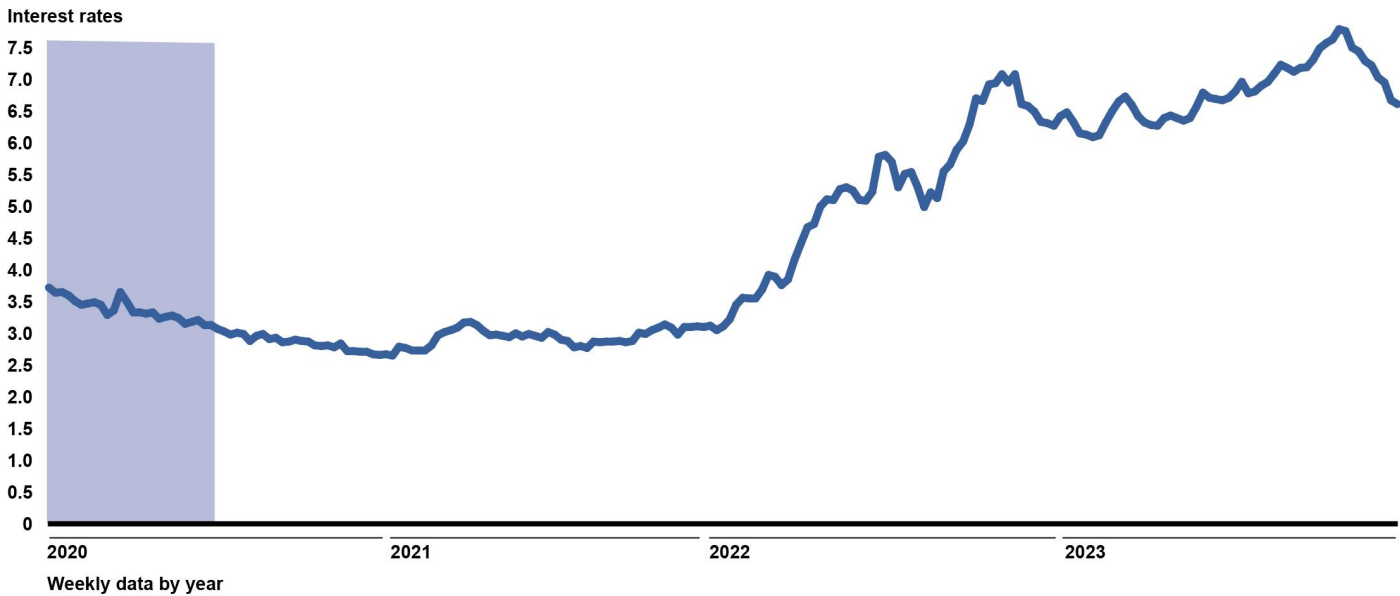
Source: FRED, Federal Reserve Bank of St. Louis | GAO-24-106643

Note: Data are through the third quarter of 2023 and represent the average (50th percentile) consumer credit score for first-lien originations at large banks (generally, institutions with assets of \$100 billion or more). Large banks are one of many types of mortgage lenders. Average borrower credit score at origination may vary by lender type. Scores were at origination for commercially

available credit scores. Only mortgage accounts with credit scores between 150 and 950 are included in these 50th percentile calculations. These data include total bank loans originated and held in portfolio on a given quarter, including those that will later be sold or securitized. Shaded areas indicate U.S. recessions.

Additionally, mortgage interest rates increased substantially in the years following the COVID-19 recession, raising the effective cost of homeownership and the demand for rental housing (see fig. 4).

Figure 4: Average Interest Rate, Fixed-Rate 30-Year Mortgages, 2020–2023



Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Accessible Data for Figure 4: Average Interest Rate, Fixed-Rate 30-Year Mortgages, 2020–2023

Date	Interest rate
2020-01-02	3.72
2020-01-09	3.64
2020-01-16	3.65
2020-01-23	3.60
2020-01-30	3.51
2020-02-06	3.45
2020-02-13	3.47
2020-02-20	3.49
2020-02-27	3.45
2020-03-05	3.29

Letter

Date	Interest rate
2020-03-12	3.36
2020-03-19	3.65
2020-03-26	3.50
2020-04-02	3.33
2020-04-09	3.33
2020-04-16	3.31
2020-04-23	3.33
2020-04-30	3.23
2020-05-07	3.26
2020-05-14	3.28
2020-05-21	3.24
2020-05-28	3.15
2020-06-04	3.18
2020-06-11	3.21
2020-06-18	3.13
2020-06-25	3.13
2020-07-02	3.07
2020-07-09	3.03
2020-07-16	2.98
2020-07-23	3.01
2020-07-30	2.99
2020-08-06	2.88
2020-08-13	2.96
2020-08-20	2.99
2020-08-27	2.91
2020-09-03	2.93
2020-09-10	2.86
2020-09-17	2.87
2020-09-24	2.90
2020-10-01	2.88
2020-10-08	2.87
2020-10-15	2.81
2020-10-22	2.80
2020-10-29	2.81
2020-11-05	2.78
2020-11-12	2.84
2020-11-19	2.72

Letter

Date	Interest rate
2020-11-25	2.72
2020-12-03	2.71
2020-12-10	2.71
2020-12-17	2.67
2020-12-24	2.66
2020-12-31	2.67
2021-01-07	2.65
2021-01-14	2.79
2021-01-21	2.77
2021-01-28	2.73
2021-02-04	2.73
2021-02-11	2.73
2021-02-18	2.81
2021-02-25	2.97
2021-03-04	3.02
2021-03-11	3.05
2021-03-18	3.09
2021-03-25	3.17
2021-04-01	3.18
2021-04-08	3.13
2021-04-15	3.04
2021-04-22	2.97
2021-04-29	2.98
2021-05-06	2.96
2021-05-13	2.94
2021-05-20	3.00
2021-05-27	2.95
2021-06-03	2.99
2021-06-10	2.96
2021-06-17	2.93
2021-06-24	3.02
2021-07-01	2.98
2021-07-08	2.90
2021-07-15	2.88
2021-07-22	2.78
2021-07-29	2.80
2021-08-05	2.77

Letter

Date	Interest rate
2021-08-12	2.87
2021-08-19	2.86
2021-08-26	2.87
2021-09-02	2.87
2021-09-09	2.88
2021-09-16	2.86
2021-09-23	2.88
2021-09-30	3.01
2021-10-07	2.99
2021-10-14	3.05
2021-10-21	3.09
2021-10-28	3.14
2021-11-04	3.09
2021-11-10	2.98
2021-11-18	3.10
2021-11-24	3.10
2021-12-02	3.11
2021-12-09	3.10
2021-12-16	3.12
2021-12-23	3.05
2021-12-30	3.11
2022-01-06	3.22
2022-01-13	3.45
2022-01-20	3.56
2022-01-27	3.55
2022-02-03	3.55
2022-02-10	3.69
2022-02-17	3.92
2022-02-24	3.89
2022-03-03	3.76
2022-03-10	3.85
2022-03-17	4.16
2022-03-24	4.42
2022-03-31	4.67
2022-04-07	4.72
2022-04-14	5.00
2022-04-21	5.11

Letter

Date	Interest rate
2022-04-28	5.10
2022-05-05	5.27
2022-05-12	5.30
2022-05-19	5.25
2022-05-26	5.10
2022-06-02	5.09
2022-06-09	5.23
2022-06-16	5.78
2022-06-23	5.81
2022-06-30	5.70
2022-07-07	5.30
2022-07-14	5.51
2022-07-21	5.54
2022-07-28	5.30
2022-08-04	4.99
2022-08-11	5.22
2022-08-18	5.13
2022-08-25	5.55
2022-09-01	5.66
2022-09-08	5.89
2022-09-15	6.02
2022-09-22	6.29
2022-09-29	6.70
2022-10-06	6.66
2022-10-13	6.92
2022-10-20	6.94
2022-10-27	7.08
2022-11-03	6.95
2022-11-10	7.08
2022-11-17	6.61
2022-11-23	6.58
2022-12-01	6.49
2022-12-08	6.33
2022-12-15	6.31
2022-12-22	6.27
2022-12-29	6.42
2023-01-05	6.48

Letter

Date	Interest rate
2023-01-12	6.33
2023-01-19	6.15
2023-01-26	6.13
2023-02-02	6.09
2023-02-09	6.12
2023-02-16	6.32
2023-02-23	6.50
2023-03-02	6.65
2023-03-09	6.73
2023-03-16	6.60
2023-03-23	6.42
2023-03-30	6.32
2023-04-06	6.28
2023-04-13	6.27
2023-04-20	6.39
2023-04-27	6.43
2023-05-04	6.39
2023-05-11	6.35
2023-05-18	6.39
2023-05-25	6.57
2023-06-01	6.79
2023-06-08	6.71
2023-06-15	6.69
2023-06-22	6.67
2023-06-29	6.71
2023-07-06	6.81
2023-07-13	6.96
2023-07-20	6.78
2023-07-27	6.81
2023-08-03	6.90
2023-08-10	6.96
2023-08-17	7.09
2023-08-24	7.23
2023-08-31	7.18
2023-09-07	7.12
2023-09-14	7.18
2023-09-21	7.19

Date	Interest rate
2023-09-28	7.31
2023-10-05	7.49
2023-10-12	7.57
2023-10-19	7.63
2023-10-26	7.79
2023-11-02	7.76
2023-11-09	7.50
2023-11-16	7.44
2023-11-22	7.29
2023-11-30	7.22
2023-12-07	7.03
2023-12-14	6.95
2023-12-21	6.67
2023-12-28	6.61

Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Note: Underlying data are from Freddie Mac and are limited to applications submitted to Freddie Mac. Shaded areas indicate U.S. recessions.

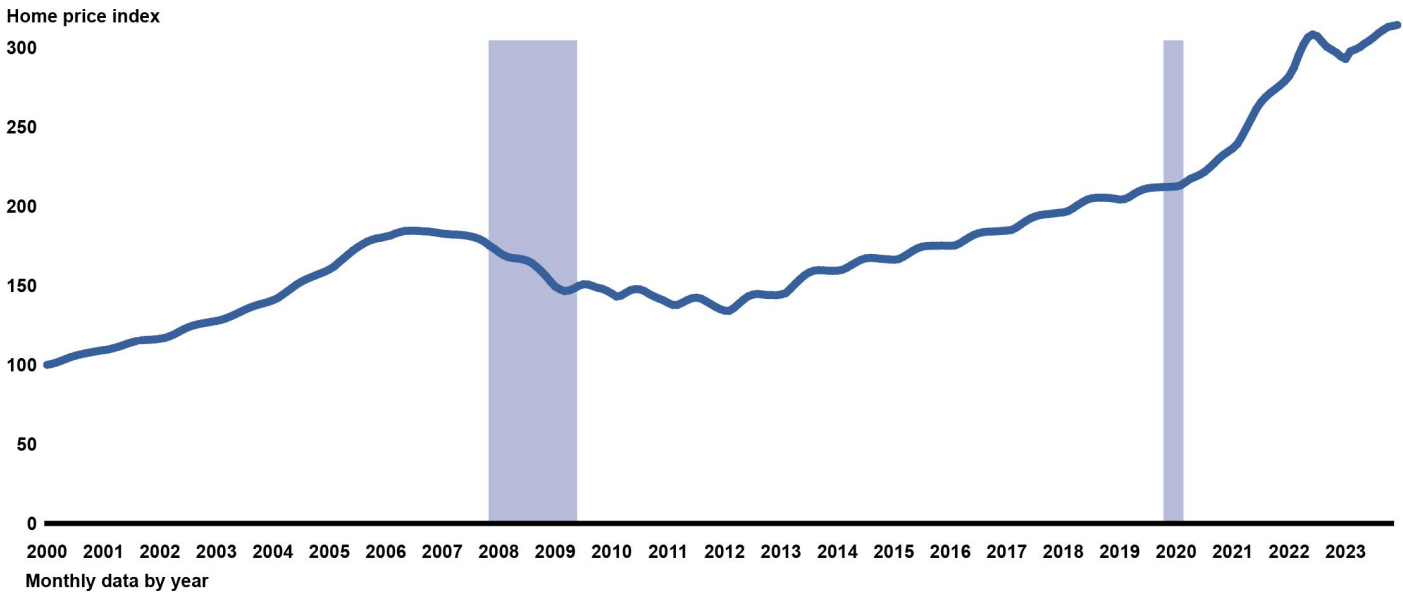
Stock and supply. The U.S. experienced a decline of an estimated 1.2 million owner-occupied units from 2006 through 2013.⁶ At the same time, vacant and renter-occupied units increased substantially. These changes can be attributed in part to “tenure conversions”—that is, ownership units converted to rental units, such as those converted through foreclosures. A second factor was a sharp decline in the construction of new homes beginning in 2006. Freddie Mac estimated that the deficit of housing (ownership and rental) was about 3.8 million units as of 2020.⁷

Prices and rents. These housing demand and supply changes contributed to steady average home-price increases at the national level following the financial crisis (see fig. 5).

⁶See GAO, *Housing: Preliminary Analysis of Homeownership Trends for Nine Cities*, GAO-20-544R (Washington, D.C.: June 25, 2020).

⁷Freddie Mac, “Housing Supply: A Growing Deficit,” Research Note (May 7, 2021).

Figure 5: National Average Home Price Changes, 2000–2023



Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Accessible Data for Figure 5: National Average Home Price Changes, 2000–2023

observation_date	Home price index
2000-01-01	100.00000000000000
2000-02-01	100.57100000000000
2000-03-01	101.46600000000000
2000-04-01	102.54000000000000
2000-05-01	103.70200000000000
2000-06-01	104.85500000000000
2000-07-01	105.72100000000000
2000-08-01	106.52200000000000
2000-09-01	107.13500000000000
2000-10-01	107.72800000000000
2000-11-01	108.29100000000000
2000-12-01	108.79100000000000
2001-01-01	109.21400000000000
2001-02-01	109.64200000000000
2001-03-01	110.39400000000000
2001-04-01	111.24800000000000
2001-05-01	112.20300000000000

Letter

observation_date	Home price index
2001-06-01	113.27200000000000
2001-07-01	114.22600000000000
2001-08-01	114.98800000000000
2001-09-01	115.46500000000000
2001-10-01	115.68100000000000
2001-11-01	115.83900000000000
2001-12-01	116.05600000000000
2002-01-01	116.43700000000000
2002-02-01	116.91600000000000
2002-03-01	117.92900000000000
2002-04-01	119.20800000000000
2002-05-01	120.78800000000000
2002-06-01	122.33300000000000
2002-07-01	123.68700000000000
2002-08-01	124.72900000000000
2002-09-01	125.49400000000000
2002-10-01	126.13600000000000
2002-11-01	126.64200000000000
2002-12-01	127.15100000000000
2003-01-01	127.65200000000000
2003-02-01	128.32600000000000
2003-03-01	129.30800000000000
2003-04-01	130.48800000000000
2003-05-01	131.83900000000000
2003-06-01	133.22500000000000
2003-07-01	134.64700000000000
2003-08-01	135.96500000000000
2003-09-01	137.07600000000000
2003-10-01	137.97600000000000
2003-11-01	138.76500000000000
2003-12-01	139.62800000000000
2004-01-01	140.70600000000000
2004-02-01	142.02900000000000
2004-03-01	144.08000000000000
2004-04-01	146.18000000000000
2004-05-01	148.33400000000000
2004-06-01	150.51800000000000

Letter

observation_date	Home price index
2004-07-01	152.33700000000000
2004-08-01	153.81300000000000
2004-09-01	155.10700000000000
2004-10-01	156.29800000000000
2004-11-01	157.49600000000000
2004-12-01	158.66900000000000
2005-01-01	160.12900000000000
2005-02-01	161.92300000000000
2005-03-01	164.57500000000000
2005-04-01	166.99900000000000
2005-05-01	169.54400000000000
2005-06-01	172.01500000000000
2005-07-01	174.09800000000000
2005-08-01	175.92300000000000
2005-09-01	177.61000000000000
2005-10-01	178.75100000000000
2005-11-01	179.67300000000000
2005-12-01	180.10600000000000
2006-01-01	180.82700000000000
2006-02-01	181.49900000000000
2006-03-01	182.74900000000000
2006-04-01	183.64800000000000
2006-05-01	184.38000000000000
2006-06-01	184.54700000000000
2006-07-01	184.60700000000000
2006-08-01	184.40400000000000
2006-09-01	184.19700000000000
2006-10-01	184.05300000000000
2006-11-01	183.63000000000000
2006-12-01	183.22800000000000
2007-01-01	182.71800000000000
2007-02-01	182.47000000000000
2007-03-01	182.19300000000000
2007-04-01	182.13100000000000
2007-05-01	181.88400000000000
2007-06-01	181.54000000000000
2007-07-01	180.99300000000000

Letter

observation_date	Home price index
2007-08-01	180.23400000000000
2007-09-01	179.12100000000000
2007-10-01	177.52900000000000
2007-11-01	175.16100000000000
2007-12-01	173.33700000000000
2008-01-01	171.07600000000000
2008-02-01	169.19000000000000
2008-03-01	167.90200000000000
2008-04-01	167.32200000000000
2008-05-01	167.02000000000000
2008-06-01	166.53600000000000
2008-07-01	165.71300000000000
2008-08-01	164.27700000000000
2008-09-01	161.91200000000000
2008-10-01	159.16200000000000
2008-11-01	156.07100000000000
2008-12-01	152.54400000000000
2009-01-01	149.36100000000000
2009-02-01	147.61700000000000
2009-03-01	146.51400000000000
2009-04-01	146.94200000000000
2009-05-01	148.16900000000000
2009-06-01	149.79600000000000
2009-07-01	150.74800000000000
2009-08-01	150.66800000000000
2009-09-01	149.62700000000000
2009-10-01	148.58400000000000
2009-11-01	147.93900000000000
2009-12-01	146.66400000000000
2010-01-01	145.00300000000000
2010-02-01	143.05400000000000
2010-03-01	143.59600000000000
2010-04-01	145.40400000000000
2010-05-01	147.04000000000000
2010-06-01	147.70500000000000
2010-07-01	147.56600000000000
2010-08-01	146.43000000000000

Letter

observation_date	Home price index
2010-09-01	144.61100000000000
2010-10-01	143.13000000000000
2010-11-01	141.81900000000000
2010-12-01	140.62800000000000
2011-01-01	139.03600000000000
2011-02-01	137.73200000000000
2011-03-01	137.78500000000000
2011-04-01	139.15800000000000
2011-05-01	140.69300000000000
2011-06-01	141.94500000000000
2011-07-01	142.34300000000000
2011-08-01	141.78600000000000
2011-09-01	140.16900000000000
2011-10-01	138.41000000000000
2011-11-01	136.66600000000000
2011-12-01	135.16700000000000
2012-01-01	134.16800000000000
2012-02-01	133.99700000000000
2012-03-01	135.86500000000000
2012-04-01	138.47100000000000
2012-05-01	141.04800000000000
2012-06-01	143.16900000000000
2012-07-01	144.28300000000000
2012-08-01	144.70600000000000
2012-09-01	144.35700000000000
2012-10-01	143.96700000000000
2012-11-01	143.95900000000000
2012-12-01	143.86600000000000
2013-01-01	144.31000000000000
2013-02-01	145.16100000000000
2013-03-01	147.96000000000000
2013-04-01	150.96800000000000
2013-05-01	153.85900000000000
2013-06-01	156.42700000000000
2013-07-01	158.28600000000000
2013-08-01	159.39400000000000
2013-09-01	159.67200000000000

Letter

observation_date	Home price index
2013-10-01	159.55600000000000
2013-11-01	159.36400000000000
2013-12-01	159.28100000000000
2014-01-01	159.36800000000000
2014-02-01	159.87100000000000
2014-03-01	161.18800000000000
2014-04-01	162.96800000000000
2014-05-01	164.68300000000000
2014-06-01	166.21200000000000
2014-07-01	167.13600000000000
2014-08-01	167.45100000000000
2014-09-01	167.24100000000000
2014-10-01	166.91000000000000
2014-11-01	166.65700000000000
2014-12-01	166.45900000000000
2015-01-01	166.24900000000000
2015-02-01	166.63000000000000
2015-03-01	168.08800000000000
2015-04-01	169.96900000000000
2015-05-01	171.85000000000000
2015-06-01	173.45000000000000
2015-07-01	174.49600000000000
2015-08-01	174.93800000000000
2015-09-01	175.04400000000000
2015-10-01	175.04900000000000
2015-11-01	175.14100000000000
2015-12-01	175.11400000000000
2016-01-01	175.03400000000000
2016-02-01	175.27900000000000
2016-03-01	176.60000000000000
2016-04-01	178.49400000000000
2016-05-01	180.34300000000000
2016-06-01	181.91400000000000
2016-07-01	183.01600000000000
2016-08-01	183.65400000000000
2016-09-01	183.94400000000000
2016-10-01	184.01800000000000

Letter

observation_date	Home price index
2016-11-01	184.23100000000000
2016-12-01	184.40300000000000
2017-01-01	184.65400000000000
2017-02-01	185.02000000000000
2017-03-01	186.52900000000000
2017-04-01	188.54300000000000
2017-05-01	190.54000000000000
2017-06-01	192.26700000000000
2017-07-01	193.51200000000000
2017-08-01	194.34700000000000
2017-09-01	194.81800000000000
2017-10-01	195.08500000000000
2017-11-01	195.45200000000000
2017-12-01	195.84800000000000
2018-01-01	196.11400000000000
2018-02-01	196.90100000000000
2018-03-01	198.57000000000000
2018-04-01	200.61500000000000
2018-05-01	202.45300000000000
2018-06-01	204.04300000000000
2018-07-01	204.95000000000000
2018-08-01	205.32700000000000
2018-09-01	205.37300000000000
2018-10-01	205.36800000000000
2018-11-01	205.10500000000000
2018-12-01	204.69700000000000
2019-01-01	204.20300000000000
2019-02-01	204.43200000000000
2019-03-01	205.78100000000000
2019-04-01	207.69400000000000
2019-05-01	209.35800000000000
2019-06-01	210.59300000000000
2019-07-01	211.34400000000000
2019-08-01	211.70300000000000
2019-09-01	211.88100000000000
2019-10-01	211.97400000000000
2019-11-01	212.11200000000000

Letter

observation_date	Home price index
2019-12-01	212.24300000000000
2020-01-01	212.40400000000000
2020-02-01	213.22400000000000
2020-03-01	215.20000000000000
2020-04-01	217.24500000000000
2020-05-01	218.49300000000000
2020-06-01	219.82000000000000
2020-07-01	221.57800000000000
2020-08-01	224.05900000000000
2020-09-01	226.81200000000000
2020-10-01	229.82400000000000
2020-11-01	232.33000000000000
2020-12-01	234.38100000000000
2021-01-01	236.45600000000000
2021-02-01	239.23800000000000
2021-03-01	244.23400000000000
2021-04-01	249.84100000000000
2021-05-01	255.46500000000000
2021-06-01	261.18800000000000
2021-07-01	265.52400000000000
2021-08-01	268.80000000000000
2021-09-01	271.45500000000000
2021-10-01	273.66700000000000
2021-11-01	276.03800000000000
2021-12-01	278.61500000000000
2022-01-01	281.99000000000000
2022-02-01	287.22400000000000
2022-03-01	295.04400000000000
2022-04-01	301.69600000000000
2022-05-01	306.47300000000000
2022-06-01	308.26800000000000
2022-07-01	307.10500000000000
2022-08-01	303.65900000000000
2022-09-01	300.47800000000000
2022-10-01	298.70400000000000
2022-11-01	296.89800000000000
2022-12-01	294.39000000000000

observation_date	Home price index
2023-01-01	292.82000000000000
2023-02-01	297.56800000000000
2023-03-01	298.72300000000000
2023-04-01	300.19200000000000
2023-05-01	302.46900000000000
2023-06-01	304.29100000000000
2023-07-01	306.52800000000000
2023-08-01	309.09200000000000
2023-09-01	311.14700000000000
2023-10-01	312.97800000000000
2023-11-01	313.64100000000000
2023-12-01	314.24300000000000

Source: FRED, Federal Reserve Bank of St. Louis. | GAO-24-106643

Note: Home-price index January 2000 = 100. Underlying home-price data are from the Standard and Poor's Dow Jones Indices LLC and Standard and Poor's Case-Shiller U.S. National Home Price Index and are not adjusted for inflation. Shaded areas indicate U.S. recessions.

These changes also contributed to steady increases in average rents at the national level over the same period. Specifically, the average nominal rent more than doubled from 2000 through 2023.

Foreclosure and Real Estate Owned Disposition Processes

A mortgage loan becomes delinquent when a borrower fails to make a periodic payment by its scheduled due date.⁸ When the loan becomes delinquent, it may be considered in default at that time or when payment is not made during any applicable grace period.⁹ When the loan becomes delinquent, a servicer may provide loss mitigation options to the borrower

⁸As defined in Regulation X, a borrower and a borrower's mortgage loan obligation are delinquent beginning on the date a periodic payment sufficient to cover principal, interest, and, if applicable, escrow becomes due and unpaid, until such time as no periodic payment is due and unpaid. 12 C.F.R. § 1024.31. State laws may also include definitions of delinquency that vary from one another and from Regulation X.

⁹State laws generally define default, which may vary by loan type and lien position. As we have previously reported, no uniform definition exists across the lending industry regarding the amount of delinquency that results in a default. See GAO, *COVID-19 Housing Protections: Mortgage Forbearance and Other Federal Efforts Have Reduced Default and Foreclosure Risks*, [GAO-21-554](#) (Washington, D.C.: July 12, 2021).

in an effort to avoid foreclosure.¹⁰ While the foreclosure process is generally governed by state law, in the event any loss mitigation options offered are unsuccessful, the servicer may commence the foreclosure process, which may include auctioning the property. If no third party purchases the home during the foreclosure process, the home then becomes the property of the note holder as part of a real estate owned (REO) inventory, as we have previously reported.¹¹ REO properties may be sold through the note holder's own platform or through real estate agents' Multiple Listing Service.

REO-to-Rental Initiative and Investor Loans

The federal government took several steps to stabilize the economy in response to the 2007–2009 financial crisis. For example, the Federal Housing Finance Agency launched the REO-to-Rental Initiative pilot program in 2012 to help stabilize the housing market and meet the growing renter demand in the wake of the financial crisis.¹² The program allowed pre-qualified investors to bid on large portfolios of foreclosed properties owned by Fannie Mae. Winning bidders were able to purchase properties under the stipulation that they be rented for a specified number of years.¹³

In addition, in 2017, Fannie Mae backed a 10-year, \$1 billion loan to Invitation Homes (one of the largest investors in single-family rental housing) to purchase and manage single-family rental homes. Freddie Mac subsequently launched a pilot program designed to provide liquidity

¹⁰Mortgage servicing rules under Regulation X require servicers to make good faith efforts to notify borrowers of loss mitigation options, to the extent those options are made available by the servicer, soon after the borrower becomes delinquent. However, Regulation X does not require a servicer to offer any loss mitigation options or foreclosure avoidance relief. 12 C.F.R. part 1024, subpart C. State laws may also require certain notifications to delinquent borrowers.

¹¹For more information, see GAO, *Federal Housing Administration: Improving Disposition and Oversight Practices May Increase Returns on Foreclosed Property Sales*, [GAO-13-542](#) (Washington, D.C.: June 20, 2013).

¹²The Federal Housing Finance Agency is responsible for supervising and regulating Fannie Mae and Freddie Mac. Fannie Mae and Freddie Mac guarantee most U.S. mortgages. Loan guarantees reduce risk for lenders who make the loans and investors who may purchase them, making loans more affordable to homebuyers. Loans guaranteed by Fannie Mae and Freddie Mac are known as conventional loans.

¹³Through the pilot, Fannie Mae sold about 1,800 homes to three winning bidders (Pacifica Companies LLC, Cogsville Group LLC, and Invitation Homes) in Arizona, California, Illinois, Florida, and Nevada.

and stability for mid-sized investors (generally those with 50–2,000 properties) and uniform credit standards on loans for single-family rental properties. The Federal Housing Finance Agency directed Fannie Mae and Freddie Mac to terminate these initiatives in 2018 following their assessment that large institutional investors in single-family rental housing did not require additional liquidity.

Institutional Investors in Single-Family Rental Housing

How did institutional investors emerge?

Institutional investors in single-family rental housing emerged from the 2007–2009 financial crisis, leveraging access to capital and new technologies to purchase large numbers of foreclosed homes and convert them to rental housing.¹⁴ Several institutional investors entered the U.S. single-family rental housing market following the financial crisis, including American Homes 4 Rent, Colony Capital, Invitation Homes (a Blackstone portfolio company until January 2019), Progress Residential, Starwood Capital, and Waypoint Real Estate Group.¹⁵

Availability of Foreclosed Homes. As a result of the financial crisis, large numbers of foreclosed homes were sold at local auctions and

¹⁴Meredith Abood, *Securitizing Suburbia: The Financialization of Single-Family Rental Housing and the Need to Redefine “Risk”* (Cambridge, Mass.: Massachusetts Institute of Technology, June 2017); Brett Christophers, “How and Why U.S. Single-Family Housing Became an Investor Asset Class,” *Journal of Urban History*, vol. 49, no. 2 (2023): 430–449; Desiree Fields, “Constructing a New Asset Class: Property-Led Financial Accumulation after the Crisis,” *Economic Geography*, vol. 94, no. 2 (2018): 118–140; James Mills, Raven Molloy, and Rebecca Zarutskie, “Large-Scale Buy-to-Rent Investors in the Single-Family Housing Market: The Emergence of a New Asset Class,” *Real Estate Economics*, vol. 47, no. 2 (2019): 399–430; and Sara Ozogul and Tuna Tasan-Kok, “One and the Same? A Systematic Literature Review of Residential Property Investor Types,” *Journal of Planning Literature*, vol. 35, no. 4 (2020): 475–494.

¹⁵Christophers, “How and Why” and Mills, “Large-Scale Buy-to-Rent Investors.” As previously discussed, Pacifica Companies and Cogsville Group participated in Fannie Mae’s REOs to Rentals program, but neither investor accumulated more than 1,000 properties under the program.

through Fannie Mae's REO-to-Rental Initiative.¹⁶ Historically, institutional investors had avoided the single-family housing market. They viewed engaging in individual transactions and managing geographically diverse assets as too costly and challenging. According to one study, before the financial crisis began in 2007, investors owned about 10 million single-family rental units in the U.S., consisting mostly of smaller investors who owned 10 or fewer units. As of late 2011, no single investor in the U.S. owned more than 1,000 units.¹⁷

However, local foreclosure auctions that sold large numbers of properties in the same day became prevalent. This gave institutional investors pricing power over rents in those markets and opportunities to realize economies of scale in managing their properties. Similarly, institutional investors purchased properties in bulk through Fannie Mae's REO-to-Rental Initiative in Arizona, California, Florida, Illinois, and Nevada. These were some of the areas most affected by the financial crisis.¹⁸ According to Federal Housing Finance Agency officials, the estimated 2,500 homes sold through the program were in weaker for-sale markets where Fannie Mae had a large portfolio of occupied REO properties. By 2015, institutional investors that entered the market during the financial crisis owned an estimated 170,000–300,000 single-family housing units (about 1–2 percent of the single-family rental housing stock), according to some studies we reviewed.¹⁹

Access to Capital and Mortgage Credit. The majority of buyers at foreclosure auctions purchased homes in cash, which gave larger investors an advantage over smaller investors and individual buyers.

¹⁶Federal Housing Finance Agency officials said the agency's preference is to sell REO properties to owner-occupant purchasers through Fannie Mae and Freddie Mac's First Look programs, which gives preference to owner-occupant buyers in the first 30 days of marketing the properties for sale.

¹⁷Christophers, "How and Why."

¹⁸Federal Housing Finance Agency, *2011 Report to Congress* (Washington, D.C.: June 2012).

¹⁹This range is based on data reported in Desiree Fields, Rajkumar Kohli, and Alex Schafran, *The Emerging Economic Geography of Single-Family Rental Securitization*, Federal Reserve Bank of San Francisco Working Paper Series 2016-02 (San Francisco, Calif.: 2016) and Laurie Goodman and Robert Abare, *Why the Single-Family Rental Merger Won't Hurt Homebuyers or Renters* (Washington, D.C.: Urban Institute, 2017). Differences in estimates are a result of differences in how each study defined institutional investor and the number of estimated single-family rental units in the U.S. at the time each study was conducted.

Large investors were able to leverage funding sources such as private equity funds, public equity and debt securities, securitization of rental income, and government-backed loans.²⁰ At the same time, mortgage lenders were tightening standards (e.g., requiring higher credit scores) and generally reducing lending. As a result, fewer potential homebuyers were able to qualify for mortgages in the years following the financial crisis, and sellers often preferred cash offers over those that relied on mortgage approval.

Technological Advancements. Advancements in technology also aided the emergence of institutional investors in single-family housing by making it easier for companies to acquire and manage portfolios. In its 2018 annual report, American Homes 4 Rent stated that the challenge of efficiently scaling the acquisition and management of many individual homes was the primary reason large-scale investment in single-family housing did not develop sooner.²¹ Further, in its 2022 annual report, American Homes 4 Rent stated that in-house property management enabled it to optimize rental revenues, effectively manage expenses, realize significant economies of scale, standardize brand consistency, and maintain direct contact with its tenants.²² Some key technological advancements included the following:

- Digital platforms enable the efficient identification and purchase of properties that fit investors' investment criteria.²³ According to one

²⁰Private equity is a type of private fund that generally pools money from institutional and individual investors and invests in companies that are often not publicly traded. Equity securities are financial assets that represent shares of ownership in a company, such as common stock. Debt securities, such as bonds, are financial assets that define the terms of a loan between an issuer (the borrower) and an investor (the lender). Asset securitization is the structured process whereby streams of income are packaged, underwritten, and sold in the form of asset-backed securities. Specifically, single-family rental securitizations use residential properties as collateral for the securities, but the underlying bond payments are backed by rental cash flows. As discussed earlier, Fannie Mae and Freddie Mac operated programs from 2017 to 2018 to provide loans to single-family rental investors. Through these programs, Fannie Mae made one \$1 billion loan to a single institutional investor, and Freddie Mac made a total of \$1.3 billion in loans to multiple investors, generally with portfolios of 2,000 or fewer properties.

²¹American Homes 4 Rent, 2018 Annual Report (Agoura Hills, Calif.: 2019).

²²American Homes 4 Rent, 2022 Annual Report (Las Vegas, Nev.: 2023).

²³For example, see Rohan Ganduri, Steven Chong Xiao, and Serena Wenjing Xiao, "Tracing the Source of Liquidity for Distressed Housing Markets," *Real Estate Economics*, vol. 51 (2023): 408–440; and Megan Nethercote, "Build-to-Rent and the Financialization of Rental Housing: Future Research Directions," *Housing Studies*, vol. 35, no. 5 (2020): 839–874.

article, these platforms are organized around data fed into a proprietary underwriting algorithm. In combination with target investment return and other investor specifications, the algorithm identifies desirable properties and generates prices.²⁴

- Online management portals allow prospective tenants to search and apply for units and enable existing tenants to pay rent and submit maintenance requests. These technology tools allow institutional investors to manage geographically dispersed rental housing portfolios on a large scale.²⁵

How have institutional investors changed since the financial crisis?

As foreclosure rates declined, institutional investors used other strategies to acquire single-family homes. For example, one study noted that institutional investors pursued smaller-scale purchases, including purchasing one home at a time through brokers or listing services, such as the Multiple Listing Service.²⁶ An industry representative we interviewed said that more recent institutional investor purchases of single-family homes are overwhelmingly conducted through the Multiple Listing Service or local brokers given more limited opportunities to buy foreclosed homes. Other studies described how institutional investors leverage existing technology platforms to efficiently identify and purchase single or small numbers of properties that fit their investment criteria.²⁷

Some studies stated that institutional investors turned to acquisitions of and mergers with other investors as the single-family market matured, resulting in industry consolidation.²⁸ For example, one study found that

²⁴Desiree Fields, "Automated Landlord: Digital Technologies and Post-Crisis Financial Accumulation," *Environment and Planning A: Economy and Space*, vol. 54, no. 1 (2022): 160–181.

²⁵Abood, *Securitizing Suburbia*.

²⁶Desiree Fields and Manon Vergerio, *Corporate Landlords and Market Power: What Does the Single-Family Rental Boom Mean for Our Housing Future?* (Berkeley, Calif.: University of California Press, Apr. 2022).

²⁷Fields, "Automated Landlord"; Christophers, "How and Why" and Mills, "Large-Scale Buy-to-Rent Investors."

²⁸For example, see Suzanne Lanyi Charles, "The Financialization of Single-Family Rental Housing: An Examination of Real Estate Investment Trusts' Ownership of Single-Family Houses in the Atlanta Metropolitan Area," *Journal of Urban Affairs*, vol. 42, no. 8 (2020): 1321–1341; Fields, Desiree and Vergerio, *Corporate Landlords and Market Power*.

the industry's five largest investors in 2013 had consolidated into two firms by 2017.²⁹ Finally, other institutional investors have recently pursued "build-to-rent" models. These investors work with developers to build communities of homes that will be rented once construction is complete.³⁰ An industry representative told us this approach helps meet increasing demand for rental housing without affecting homeownership opportunities. However, Federal Housing Finance Agency officials said that the build-to-rent model affects homeownership opportunities because those homes could alternatively be sold to owner-occupiers.

How many homes do institutional investors own and where are they located?

Most market trends analyses we reviewed defined institutional investors as those owning 1,000 or more properties. According to one estimate, by June 2022, 32 investors each owned more than 1,000 single-family properties in the U.S. Collectively, this totaled nearly 450,000 homes, or about 3 percent of all single-family rental homes nationally.³¹ Based on our analysis of publicly available information, as of the end of 2022, the five largest investors owned about 300,000 homes, or nearly 2 percent of all single-family rental homes nationally.

The literature we reviewed found that institutional investors have consistently invested in high-growth and geographically concentrated areas.³²

- According to one study, geographic concentration of institutional investment in single-family rental units in the Sunbelt region following the financial crisis reflected both foreclosure activity and the

²⁹Christophers, "How and Why." See also Colburn et al., "Capitalizing on Collapse."

³⁰Colburn et al., "Capitalizing on Collapse"; Fields, Desiree and Vergerio, *Corporate Landlords and Market Power*.

³¹Laurie Goodman, Amalie Zinn, Kathryn Reynolds, and Eleanor Noble, *A Profile of Institutional Investor-Owned Single-Family Rental Properties*, (Washington, D.C.: Urban Institute, Apr. 2023). See also Cameron Ehrlich, Tim McDonald, and L. David Vertz, "Institutional Investors: A Local Perspective," *Evidence Matters*, Department of Housing and Urban Development Office of Policy Development and Research (Winter 2023).

³²Ehrlich, "Institutional Investors"; Goodman et al., *A Profile*; and Madhuri Sharma and Mikhail Samarin, "Rental Tenure and Rent Burden: Progress in Interdisciplinary Scholarship and Pathways for Geographical Research," *GeoJournal*, vol. 87 (2022): 3403–3421.

expectation of price recovery for comparatively newer homes in this region. In supporting their argument, the authors noted that some areas outside the Sunbelt with high foreclosure rates, such as New Jersey and Michigan, had virtually no single-family rental purchase activity.³³ Similarly, another study observed that low housing prices coupled with a strong rental demand motivated institutional investors to purchase units in particular cities.³⁴ More recently, our review of publicly available information found that three of the largest institutional investors reported targeting areas experiencing growth in population, employment, and rental demand.³⁵

- Some studies found that institutional investors cluster or concentrate their home purchases in certain metropolitan areas to achieve operational efficiency and cost savings through economies of scale.³⁶ For example, Atlanta, Dallas, Charlotte, and Houston were among the cities with the largest number of single-family rental homes owned by investors with more than 1,000 homes, as of 2022.³⁷
- One study noted that institutional investors want their single-family rentals within a given market to be densely concentrated because that creates efficiencies in acquisition, maintenance, and leasing.³⁸ The study said such density was necessary for single-family rentals to be as cost-efficient investments as multi-family rentals.

The Sunbelt cities that initially experienced an influx of institutional investment following the financial crisis continue to have the largest amount of institutional investment (see fig. 6).³⁹ For example, our analysis

³³Fields, et al., *The Emerging Economic*.

³⁴Colburn et al., "Capitalizing on Collapse."

³⁵Among the five largest institutional investors, three offer publicly traded stock and are required to submit annual reports to the Securities and Exchange Commission. We reviewed these three company's annual reports, which included discussion of their investment strategies. See American Homes 4 Rent: *2022 Annual Report*. Invitation Homes, *2022 Annual Report* (Dallas, Tex.: 2023). Tricon Residential, *2022 Annual Report* (Toronto, Ontario, Canada: 2023).

³⁶Charles, "The Financialization of Single-Family Rental Housing." See also Fields and Vergerio, "Corporate Landlords and Market Power."

³⁷Ehrlich, "Institutional Investors"; and Goodman et al., *A Profile*.

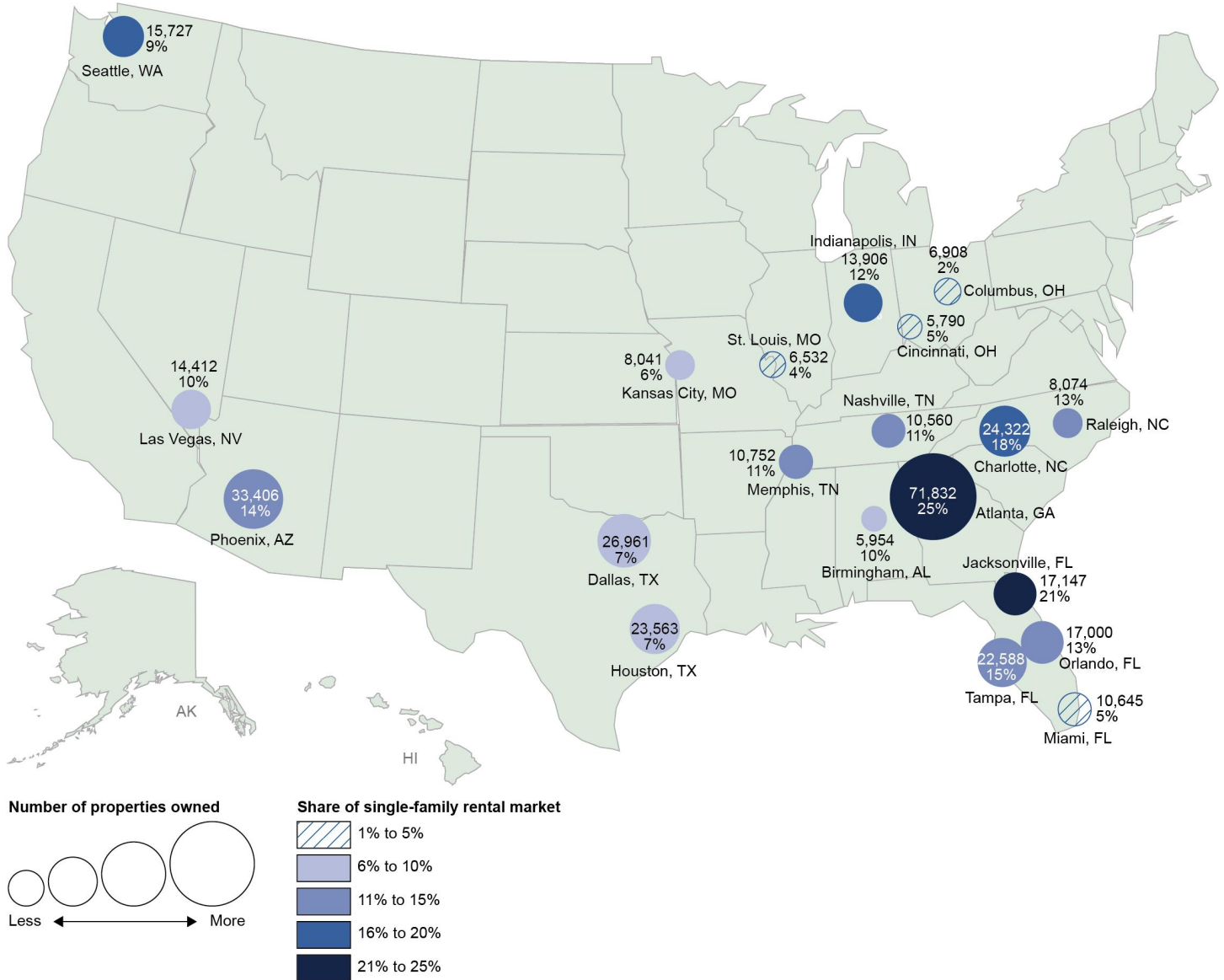
³⁸Charles, "The Financialization of Single-Family Rental Housing."

³⁹Fields and Vergerio, "Corporate Landlords and Market Power"; Ehrlich, McDonald, and Vertz, "Institutional Investors: A Local Perspective"; and Fields, "Constructing a New Asset Class."

of data from one study shows that, as of June 2022, regions with the heaviest concentration of institutional investment were Atlanta, Jacksonville, and Charlotte. In these markets, institutional investor-owned homes constituted about 25 percent, 21 percent, and 18 percent of the single-family rental market, respectively.⁴⁰

⁴⁰The study found that institutional investors owned almost 72,000 single-family rental homes in Atlanta, Ga.; 33,000 homes in Phoenix, Ariz.; and 27,000 homes in Dallas, Tex., as of 2022. Goodman et al., *A Profile*. Market-share percentages may be overstated for two reasons: (1) the numerator (i.e., the number of single-family rental homes owned in each city by investors with more than 1,000 homes) includes vacant properties, while data in the denominator (i.e., the total number of single-family rental homes in each city) excludes vacant properties; and (2) data in the numerator are from 2022, while data in the denominator are from 2021, which likely overstates ownership by excluding any new single-family rental housing supply that entered the market between 2021 and 2022.

Figure 6: Estimated Share of the Single-Family Rental Market Held by Investors with over 1,000 Homes in Selected Areas, as of 2022



Source: GAO analysis of Urban Institute data. | GAO-24-106643

Accessible Data for Figure 6: Estimated Share of the Single-Family Rental Market Held by Investors with over 1,000 Homes in Selected Areas, as of 2022

Mega Institutional Investor

20 Largest MSAs for SFR	SFR properties owned	SFR market share
Atlanta-Sandy Springs-Alpharetta, GA	71,832	25.0%
Birmingham-Hoover, AL	5,954	9.8%
Charlotte-Concord-Gastonia, NC-SC	24,322	18.3%
Cincinnati, OH-KY-IN	5,790	5.3%
Columbus, OH	6,908	2.3%
Dallas-Fort Worth-Arlington, TX	26,961	7.1%
Houston-The Woodlands-Sugar Land, TX	23,563	7.1%
Indianapolis-Carmel-Anderson, IN	13,906	12.3%
Jacksonville, FL	17,147	20.5%
Kansas City, MO-KS	8,041	6.3%
Las Vegas-Henderson-Paradise, NV	14,412	9.6%
Memphis, TN-MS-AR	10,752	10.7%
Miami-Fort Lauderdale-Pompano Beach, FL	10,645	4.5%
Nashville-Davidson-Murfreesboro-Franklin, TN	10,560	11.4%
Orlando-Kissimmee-Sanford, FL	17,000	13.2%
Phoenix-Mesa-Chandler, AZ	33,406	13.6%
Raleigh-Cary, NC	8,074	12.8%
Seattle-Tacoma-Bellevue, WA	15,727	9.1%
St. Louis, MO-IL	6,532	3.8%
Tampa-St. Petersburg-Clearwater, FL	22,588	15.3%
Total, 20 largest MSAs for SFR	354,120	10.7%

Source: GAO analysis of Urban Institute data. | GAO-24-106643

Note: Underlying data are from the U.S. Census Bureau's American Community Survey and property records data. For purposes of this figure, single-family rental properties are one-unit properties. The locations of the dots in the map correspond with the 20 Metropolitan Statistical Areas where institutional investors in single-family rental housing owned the most properties, as of June 2022. Market share percentages may be overstated for two reasons: (1) the numerator (i.e., the number of single-family rental homes owned in each city by investors with more than 1,000 homes) includes vacant properties, while data in the denominator (i.e., the total number of single-family rental homes in each city) excludes vacant properties; and (2) data in the numerator are from 2022, while data in the denominator are from 2021, which likely overstates ownership by excluding any new single-family rental housing supply that entered the market between 2021 and 2022.

An analysis of the corporate filings of three publicly traded institutional investors showed most homes owned by those investors were in

moderate- and higher-income neighborhoods.⁴¹ However, studies of specific geographic areas indicate that investors have different home acquisition strategies, which may influence the neighborhoods they invest in. For example, one study of the Atlanta metropolitan area found substantial differences in the racial and ethnic compositions of neighborhoods with high rates of institutional investment.⁴² Specifically, the study found that properties of one institutional investor were located in neighborhoods with the lowest percentage of non-Hispanic Black residents and the highest percentage of Asian and Hispanic residents, while properties of another institutional investor were located in neighborhoods with the highest percentage of non-Hispanic Black residents and lowest percentage of Asian and Hispanic residents. While certain property characteristics made a home more likely to be purchased by an institutional investor, the association of property, neighborhood, and school district characteristics varied for each institutional investor studied.⁴³

Literature on Possible Effects of Investment in Single-Family Rental Housing

Studies we reviewed found institutional investors may have contributed to an increase in home prices and rents after the financial crisis. But their effects on homeownership and tenants are less clear because data are limited and there is no agreed-upon definition of institutional investor. As a result, few of the effects covered in the literature can be attributed directly to institutional investors versus investors more generally. Also, few of the studies assessed the effect of institutional investors after 2017. In this section, we are using the term “institutional investor” to mean large, single-family rental investors, which may be defined differently by study authors. We use the term “investor” to refer more generally to broad

⁴¹Colburn et al., “Capitalizing on Collapse.” The period studied varied by company but generally was 2012 to 2017.

⁴²Charles, “The Financialization of Single-Family Rental Housing.” This study was of the four largest single-family rental real estate investment trusts in the Atlanta metropolitan area as of December 2018. A real estate investment trust generally owns income-producing real estate or real estate-related assets and may be publicly traded on a stock exchange.

⁴³Characteristics that made a home more likely to be owned by a single-family rental real estate investment trust included smaller houses, houses that were large compared to their lots, houses farther away from the central business district, and houses built after 1999.

definitions of investors used in the literature (e.g., corporations or limited liability companies, regardless of how many homes they own).

What are the possible effects of institutional investment on home prices?

Studies we reviewed found institutional investors may have increased home prices after the 2007–2009 financial crisis, especially in locations with concentrated institutional investor activity.⁴⁴ Examples include the following:

- One study found that zip codes that experienced larger increases in institutional investor home purchases in 2012 experienced higher home price appreciation over the next 2 years than zip codes with lower to no increases in institutional investor home purchases.⁴⁵ This study further found that non-institutional investors did not meaningfully increase home prices. The authors posited that institutional investors had a larger effect on prices than other investors because their purchases removed a housing unit from the purchase market. In contrast, many properties purchased by other investors were resold within the next 2 years, resulting in a smaller permanent effect on housing demand and prices. The study found institutional investment in single-family rental housing was correlated with higher home values. But the authors noted the possibility that institutional investors might have been better at choosing neighborhoods with growing housing demand, so home prices might have also risen absent their purchases.
- Another study found that institutional investment in single-family rental housing in 2012 increased the selling prices of surrounding homes, helping to stabilize local housing markets following the financial crisis.⁴⁶ To mitigate the effects of investor choice or selection bias on price growth, the study evaluated price changes following REO-to-Rental Initiative sales. As previously discussed, this program required

⁴⁴The studies that measured the effect of institutional investment on home prices generally were limited to the period during and immediately after the financial crisis and did not attempt to assess longer-term or more current effects.

⁴⁵Mills et al., "Large-Scale Buy-to-Rent." Institutional investors are defined as the eight largest investors in single-family rental housing at the time of the study. The authors use Zillow home values to measure prices. Values are estimated using property characteristics and repeat-sales techniques. Values do not always correspond to sales prices.

⁴⁶Ganduri et al., "Tracing the Source of Liquidity."

investors to bid on bulk-purchase prepackaged portfolios of foreclosed properties. Investors were not allowed to bid on individual properties, thereby mitigating their ability to purchase only the best value properties in any given location.

The study found that sales prices within one-quarter mile of bulk-sale properties increased by 1.4 percent more than homes located between one-quarter and one-half mile away. The effect was greater for foreclosed homes (4.1 percent increase), homes similar to the bulk-sale homes (2.5 percent), and homes in highly distressed neighborhoods (7 percent). The authors noted that these price increases helped offset the discounts at which properties were being sold prior to the bulk-sale events.

- A third study similarly found that home price recovery in the U.S. following the financial crisis was largely explained by the emergence of institutional investors.⁴⁷ Specifically, the authors estimated that the increasing presence of institutional investors in the housing market explained over half of the increase in real home price appreciation rates from 2006 through 2014. They further found that the largest 20 institutional investors had a larger marginal effect on prices than other institutional investors. However, the smaller investors purchased a greater share of housing during the period, so they had a larger overall effect on local home price growth.⁴⁸
- Finally, a fourth study found that investor purchases of single-family rental housing from 2009 through 2017 initially increased price growth for the median house, but that the effects diminished over time.⁴⁹ The effect was largest for the lowest-priced housing. The study further

⁴⁷Lauren Lambie-Hanson, Wenli Li, Michael Slonksoky, *Institutional Investors and the U.S. Housing Recovery*, Federal Reserve Bank of Philadelphia Working Paper, no.19-45 (Philadelphia, Pa.: Nov. 2019). This study defines institutional investors as companies with names in the dataset used that include terms such as "corporation" or "limited liability company." These companies could own as few as one property. The study also identifies and measures the effect on prices of the 20 largest institutional investors.

⁴⁸According to this study, from 2006 to 2014, the share of total purchases by the top 20 institutional buyers increased from near zero to 1.47 percent, while the share of corporate purchases increased by 4.04 percent.

⁴⁹Carlos Garriga, Pedro Gete, and Athena Tsouderou, *Investors and Housing Affordability*, Federal Reserve Bank of St. Louis Working Paper, no. 2020-047A (St. Louis, Mo.: Oct. 2020). In this study of metropolitan areas, the authors defined institutional investors as legal entities that purchased multiple housing units under the name of a company, such as a corporation or limited liability company. Although this study uses a broad definition of institutional investor, it assessed variation in results between certain large cities, where large private equity investor purchases were geographically concentrated, and other cities with mainly small and local investors.

found that price effects in cities with concentrations of private equity investor purchases were similar to price effects in other cities, suggesting that investor size was not a driver of price growth.

What are the possible effects of institutional investment on rents?

Some studies we reviewed found institutional investors may have contributed to an increase in rents after the 2007–2009 financial crisis, particularly in locations with concentrated institutional investor activity. For example:

- One study found that the consolidation of institutional investor companies may have provided these companies with sufficient market power in certain areas to increase rents.⁵⁰ Specifically, the study assessed the effect of institutional investment on rents using the companies involved in the three largest mergers of single-family rental housing investors from 2015 through 2017. It found that in the year following the merger, neighborhoods where merged firms were more active experienced a statistically significant increase in rent.
- Another study found that in locations with high supply elasticity (i.e., locations where it is easier to build housing), investors affected rents more than home prices. Conversely, in areas with low supply elasticity (i.e., locations where it is harder to build housing), investors affected home prices more than rents.⁵¹ Specifically, this study found that institutional investor purchases had a statistically significant effect on home prices and rents, but these effects disappeared in the third and fourth year.

However, other studies found more limited effects of investors on rents.

- One study of the eight largest single-family rental investors from 2012 through 2014 found a larger share of home purchases by institutional investors in a zip code was not highly correlated with subsequent

⁵⁰Umit G. Gurun, Jiabin Wu, Steven Chong Xiao, Serena Wenjing Xiao, “Do Wall Street Landlords Undermine Renters’ Welfare?” *The Review of Financial Studies*, vol. 36, no. 1 (2023): 70–121. This study evaluated companies involved in the three largest mergers of institutional investors in single-family rental housing from 2015 through 2017. These mergers created the two largest investors in single-family rental housing in the U.S. at the time of the study, American Homes 4 Rent and Invitation Homes.

⁵¹Garriga et al., “Investors and Housing Affordability.” The effects reported in this study are short-term.

changes in rents.⁵² The authors noted that this may be because these investors were supplying rental units in locations where rental demand was rising, so the net increase in supply was roughly met by an increase in demand.

- Another study observed that an increase in investor purchases was associated with an increase in county-level rents from 2011 through 2014, although the study noted that this association was not statistically significant.⁵³

What are the possible effects of institutional investment on homeownership or the decision to rent?

It is difficult to measure the effect of institutional investors in single-family rental housing on homeownership rates. The homeownership rate fell significantly from 2006 through 2012 and studies indicate institutional investors bought thousands of foreclosed single-family homes during the same period. Studies we reviewed found investor purchases, including in some cases those by institutional investors, were associated with decreases in homeownership rates.⁵⁴ The studies cited the concentration of purchases in certain areas as a contributing factor. Some studies also stated that institutional investment in single-family rental housing reduced

⁵²Mills et al., "Large-Scale Buy-to-Rent," 426.

⁵³Lambie-Hanson et al., *Institutional Investors*, 19. Investors were defined as companies. Conversely, as noted above, this study found that the increasing presence of institutional investors in the housing market explained over half of the increase in real home price appreciation rates from 2006 through 2014. For additional discussion of house prices and rental income for investors, see Andrea Eisfeldt and Andrew Demers, "Total Returns to Single Family Rentals," *National Bureau of Economic Research Working Paper Series*, Working Paper 21804 (Cambridge, Mass.: National Bureau of Economic Research, May 2021). Another study shows tighter credit markets caused rents to increase between 2010 and 2014. See Pedro Gete and Michael Reher, "Mortgage Supply and Housing Rents," *The Review of Financial Studies*, vol. 31, no. 12 (2018): 4884–4911.

⁵⁴See Lambie-Hanson et al., *Institutional Investors*; Brian Y. An., "The Influence of Institutional Single-Family Rental Investors on Homeownership: Who Gets Targeted and Pushed Out of the Local Market?" *Journal of Planning Education and Research* (2023): 2–20; Fields and Vergerio, *Corporate Landlords and Market Power*; and Yonah Freemark, Eleanor Noble, and Yipeng Su, *Who Owns the Twin Cities? An Analysis of Racialized Ownership Trends in Hennepin and Ramsey Counties* (Washington, D.C.: Urban Institute, 2021).

vacancy rates following the financial crisis because investors were converting vacant (sometimes foreclosed) properties into rental housing.⁵⁵

The decision to own or rent a home may have more to do with other market conditions and demographic factors than it does with the presence of institutional investors in the market. A few studies we identified evaluated some factors that could affect the homeownership rate.

For example, one study suggested that homebuyers are not always competing with institutional buyers for housing. The study found that institutional investors purchase homes that require substantial repair or renovation, the cost of which is out of reach for many homebuyers.⁵⁶ The study noted that, in 2020, two institutional investors reported spending \$15,000–\$39,000 to renovate each home they newly acquired. In comparison, the study calculated a typical homeowner spends about \$6,300 during the first year after purchasing a home. It also found that homeowners generally do not have access to financing for extensive renovations.

Studies we reviewed had limited information on the financial and demographic information on those who rent single-family homes. One study found that from 2009 through 2016 renters of single-family homes more closely resembled other renters than homeowners across several characteristics with two exceptions: (1) a much higher share of renters of single-family housing had at least one child (47 percent compared to 33 percent for renters in 2–4 unit buildings and 25 percent of renters in multifamily buildings); and (2) a higher share of children living in poverty live in single-family rental housing than they do in all other housing, rented or owned (33 percent versus 11 percent).⁵⁷ The study also found that neighborhoods with high growth in single-family rental homes were home to higher proportions of younger households and households with

⁵⁵For example, see Mills et al., “Large-Scale Buy-to-Rent Investors”, and Lambie-Hanson et al., *Institutional Investors*.

⁵⁶Laurie Goodman and Edward Golding, *Institutional Investors Have a Comparative Advantage in Purchasing Homes That Need Repair* (Washington, D.C.: Urban Institute, Oct. 20, 2021).

⁵⁷Deirdre Pfeiffer, Alex Schafran, and Jake Wegmann. “Vulnerability and Opportunity: Making Sense of the Rise in Single-Family Rentals in US Neighbourhoods,” *Housing Studies*, vol. 36, no. 7 (2021): 1026–1046. This study assessed differences in the racial and ethnic composition of neighborhoods; median home values; household age, education, and income; and household mobility. Additionally, the study focuses on single-family rental homes, regardless of investor type.

children and lower proportions of older households compared to neighborhoods without high growth in single-family rentals.⁵⁸

In addition, the Amherst Group (an institutional investor) found in 2021 that 85 percent of the renters of its single-family housing did not have credit scores or incomes that would qualify them for a mortgage.⁵⁹ The company noted that the median income for a homeowner in 2019 was estimated to be \$86,000. This was considerably higher than the 2019 \$60,000 median income of a renter living in a home built after 1980, the house vintage most likely to be owned by an institutional investor.⁶⁰ The Amherst Group estimated that a \$60,000 income would qualify an applicant for a home valued at less than \$265,000, lower than the median home price of \$358,800.

The Amherst Group also found that compared to homeowners, renters of single-family homes were younger and had larger families with more children living at home, based on an analysis of Census data. These renters were also more likely to have one income, less likely to be married, and more likely to be single parents. The study concluded that single-family rental housing allows those who cannot afford homeownership to live in similar housing.

Additionally, some studies we reviewed found that more single-family rental homes in a neighborhood may have improved integration and educational opportunities for renters. One study found that by lowering the cost of neighborhood entry, more single-family rentals, regardless of investor type, increased racial integration in Florida neighborhoods where

⁵⁸Single-family neighborhoods are defined as those where 75 percent or more of homes were single-family detached homes in 2009. Growth in single-family rentals is defined as the change in the share of single-family detached homes that were rented from 2009 to 2016. High-growth areas experienced a change in the share of single-family rental homes (relative to all single-family homes) that was greater than one standard deviation above the average change of 4.4 percentage points across all areas (about 6.8 or more percentage points). Research on neighborhoods focused on the 100 largest U.S. metropolitan regions.

⁵⁹Amherst Group, *The Profile of Single-Family Renters and the Barriers to Homeownership that Got Them Here* (Nov. 2021). The Amherst Group owns and manages more than 44,000 single-family homes in 19 states. According to Amherst Group, more than 60 percent of their tenants have credit scores below 660.

⁶⁰The article attributes information on home prices to the National Association of Realtors Research and Statistics: <https://www.nar.realtor/research-and-statistics>.

Black households were historically underrepresented.⁶¹ Specifically, the study estimated that an increase of about 16 single-family rentals in a neighborhood where Black households were underrepresented raised the percentage of Black households from 2 to 3 percent.⁶² The authors attributed this to the entry of Black households into neighborhoods rather than the exit of White or Hispanic households.

Another study found that neighborhoods with high growth in single-family rental homes were more racially and ethnically diverse than neighborhoods with lower growth in single-family rental homes.⁶³ Specifically, the study found that about half of households in these high-growth neighborhoods identified as White compared to about 70 percent in other neighborhoods. However, these high-growth neighborhoods had less income diversity and higher levels of economic disadvantage compared to other neighborhoods.⁶⁴

A third study examined whether an increase in single-family rentals in the 100 largest metropolitan areas between 2010 and 2015 provided renters with access to better-performing schools.⁶⁵ The study found that the increase in single-family rentals did not provide households in poverty

⁶¹Keith Ihlanfeldt and Cynthia Fan Yang, "Single-Family Rentals and Neighborhood Racial Integration," *Journal of Housing Economics*, vol. 53 (2021). The study did not find similar effects for Hispanic households. This study did not review institutional investors, rather the share of single-family rentals in neighborhoods (as measured by Census block groups) in nine of the 10 largest urban counties in Florida from 2008 through 2013.

⁶²Study authors note the effect is larger for low- and middle-income neighborhoods. The effect in high-income neighborhoods is not statistically significant.

⁶³Pfeiffer et al., "*Vulnerability and Opportunity*." This study examined household and neighborhoods characteristics in the 100 largest metropolitan areas from 2009 through 2016. Measures of race and ethnicity are for the heads of households. As previously discussed, high-growth areas experienced a change in the share of single-family rental homes (relative to all single-family homes) that was greater than one standard deviation above the average change of 4.4 percentage points across all areas (about 6.8 or more percentage points).

⁶⁴According to the study, these results were statistically significant.

⁶⁵Sahar Khaleel and Bernadette Hanlon, "The Rise of Single-Family Rentals and the Relationship to Opportunity Neighbourhoods for Low-Income Families with Children," *Urban Studies*, vol. 60, no. 13 (2023): 2706–2724. This study did not distinguish between institutional and other types of investors.

with access to neighborhoods with higher educational opportunities.⁶⁶ However, it also found that the increase in rentals increased access to neighborhoods with better schools for near-poverty households.

What are the possible effects of institutional investment on tenants?

Robust research is limited on institutional investors' lease terms, including maintenance responsibilities and ancillary fees, and on eviction practices. Research in this area tends also to focus on one or a few companies or a specific geographic area. As a result, it is unclear whether identified practices are common across all institutional investors and the extent to which smaller investors may also engage in these practices.

- A few studies we reviewed cited examples of institutional investors' leases requiring tenants to take on maintenance repairs themselves.⁶⁷ Other studies reviewed corporate filings and other public documents and gave examples of institutional investor companies charging fees the authors considered excessive.⁶⁸
- Studies on institutional investors' eviction practices are also limited, in large part due to a lack of robust data on evictions in general.⁶⁹ Some studies suggest that large property owners (including institutional investors) are more likely to file evictions than other property

⁶⁶This study found that in two circumstances, single-family rentals did provide access to higher educational opportunity neighborhoods to near-poverty families: (1) when there were very large increases in single-family rentals and (2) when there were few near-poverty families with children.

⁶⁷For example, see Abood, *Securitizing Suburbia* and Desiree Fields, *The Rise of the Corporate Landlord: The Institutionalization of the Single-Family Rental Market and Potential Impacts on Renters* (Brooklyn, N.Y.: Homes For All Campaign of Right To The City Alliance, 2014).

⁶⁸For example, Fields and Vergerio, "Corporate Landlords and Market Power," cites fees for tenant utility reimbursements, late payment, moving out, pets, pest control services, landscaping services, and smart home appliances, among other miscellaneous fees. For an additional discussion of fees as a revenue stream, see Abood, "Wall Street Landlords."

⁶⁹See GAO, *Evictions: National Data Are Limited and Challenging to Collect*, [GAO-24-106637](#) (Washington, D.C.: Feb. 28, 2024).

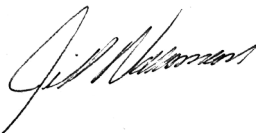
owners.⁷⁰ However, not all households that receive notice of eviction are evicted. Further, available eviction data do not account for informal evictions that occur outside the legal process, such as when a landlord compels a tenant to leave by changing the locks.⁷¹

Agency Comments

We provided a draft of this report to the Department of Housing and Urban Development and the Federal Housing Finance Agency for review and comment. The Department of Housing and Urban Development did not have any comments on the report. The Federal Housing Finance Agency provided technical comments, which we incorporated, as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Acting Secretary of Housing and Urban Development, the Director of the Federal Housing Finance Agency, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-8678 or naamanej@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.



Jill Naamane
Director, Financial Markets and Community Investment

⁷⁰For example, see Elora Lee Raymond, Richard Duckworth, Benjamin Miller, Michael Lucas, and Shiraj Pokharel, "From Foreclosure to Eviction: Housing Insecurity in Corporate-Owned Single-Family Rentals," *Cityscape*, vol. 20, no. 3 (2018); Seymour, "Corporate Landlords and Prepandemic Evictions in Las Vegas"; and Lambie-Hanson et al., *Institutional Investors*.

⁷¹[GAO-24-106637](#).

Appendix I: Objectives, Scope, and Methodology

This report provides information on (1) institutional investors in single-family rental housing and (2) reported effects of this investment on housing markets and residents.

Literature Review

To address both objectives, we conducted a review of relevant research published from 2005 through 2023 that examined institutional investment in single-family rental housing.¹ We chose 2005 as the starting point because this preceded the 2007–2009 financial crisis. We conducted multiple librarian-assisted searches of various databases, including Scopus, Dialog, and EBSCOhost. We performed the searches using keywords and manual review to limit the scope to (1) the single-family rental housing market and (2) investors, owners, and operators in this market. We used variations of terms including but not limited to “institutional,” “corporate,” “private equity,” “real estate owned,” “build to rent,” “buy to rent,” “real estate investment trusts,” “pension funds,” “limited liability companies,” and “mom and pop.”

Our literature search identified a total of 202 studies, including scholarly articles and research reports from governmental and nongovernmental organizations. To assess the relevance of these studies, we reviewed their abstracts to determine whether they discussed at least one of four topics: (1) defining institutional investors, (2) comparing institutional investors to other investors, (3) identifying factors that influence investment, or (4) identifying the effects of institutional investment. Of the 202 studies identified in our literature search, we determined 74 were relevant to our objectives, which we then reviewed and summarized. We then reviewed these studies to evaluate and ensure the quality and rigor

¹We focused the scope of our review to single-family rental homes. This scope excluded short-term rental homes, international investors, flippers (entities that purchase, fix up, and sell properties over a short period of time), and iBuyers (companies that use algorithms and technology to buy and resell homes quickly).

of the methodology. All the studies we reviewed are included in the bibliography at the end of this report.

Identification of Institutional Investors

To identify the largest institutional investors in single-family rental housing, the number of properties owned by institutional investors as of the end of 2022, and their investment strategies, we

1. collected information from seven studies included in our literature review that identified the largest institutional investors from 2014 through 2021;
2. collected information on the largest investors through interviews with selected industry groups (described in more detail below); and
3. verified and updated the information gathered from the literature and interviews with data and information from the companies' websites and corporate filings retrieved from their websites.

The studies we reviewed differed in their methods for defining institutional investors and for obtaining and analyzing data. However, corroboration of the largest firms across multiple sources provided reasonable assurance that the largest institutional investors in single-family rental housing were captured through this analysis.

Interviews

To inform both objectives, we interviewed federal officials, industry participants, and other stakeholders about our research objectives. We interviewed officials from the Department of Housing and Urban Development, Federal Housing Finance Agency, Fannie Mae, and Freddie Mac because of their roles in the housing market. We also interviewed representatives from a consumer advocacy organization (Americans for Financial Reform), industry professionals (the Amherst Group and National Rental Home Council), and research organizations (Harvard University's Joint Center for Housing Studies, Urban Institute, and a researcher from the University of California, Berkeley). We selected these individuals or entities because they were identified in our literature review or interviews with agency officials as having knowledge of the single-family rental industry.

Data on Market Trends

Finally, we analyzed market data from the Federal Reserve Bank of St. Louis to provide background information on homeownership and rentership rates, home prices and rents, borrower credit scores, and mortgage interest rates. We found these data to be reliable for describing these trends.

We conducted this performance audit from February 2023 to May 2024 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: GAO Contact and Staff Acknowledgements

GAO Contact

Jill Naamane, 202-512-8678 or naamanej@gao.gov

Staff Acknowledgments

In addition to the contact named above, Cory Marzullo (Assistant Director), Chris Ross (Analyst in Charge), Conrad Belknap, Anna Blasco, Steve Brown, Lauren Capitini, Chelsea Carter, Yiwen (Eva) Cheng, Garrett Hillyer, Marc Molino, Anne Rhodes-Kline, and Farrah Stone made key contributions to this report.

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