

Prepared for

Indiana Association of REALTORS®





The State of Indiana's Housing Market 2020

December 2020

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Indiana Association of REALTORS®

Ву

Indiana Business Research Center, Kelley School of Business, Indiana University

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Executive Summary

Despite the trials and tribulations faced during this unprecedented year, the Indiana housing market has thrived so far in 2020. For example, Hoosiers have purchased a record number of existing homes in the first three quarters of a year, with total sales through September of this year up 2.4% over the same period in 2019 (see **Table 1**). Residential construction is off to a strong start, too, as the more than 17,700 new units permitted for construction in Indiana so far in 2020 represents the state's highest tally over the first three quarters since 2007.

This uptick in construction is being driven by the unsustainably tight market for existing homes in Indiana that has led to a surge in house prices. Existing house prices in Indiana were up 7.5% year-over-year in the second quarter of 2020—marking the 10th consecutive quarter with at least a 7% annual gain. Even with mortgage rates expected to stay at historically low levels for some time, the current pace of house price appreciation is raising concerns about affordability—particularly for those looking to become first-time buyers.

Table 1: Indiana Housing Market by the Numbers

	U.S.	Indiana
Existing home sales, September 2020 year-to-date, year-over-year change	-0.2%	2.4%
House price appreciation, 2019 Q2 to 2020 Q2	5.7%	7.5%
Residential building permits (number of units), September 2020 year-to-date, year-over-year change	4.1%	5.3%
Foreclosure rate, 2020 Q2	0.7%	0.9%
Months supply of inventory, September 2020	2.7	1.5
Rental vacancy rate, 2020 Q2	5.7%	6.2%

Source: Indiana Association of Realtors, National Association of Realtors, Federal Housing Finance Agency, U.S. Census Bureau and the Mortgage Bankers Association

The lone housing market indicator that even hints at the hardships experienced by many in 2020 is the data on mortgage delinquencies. Indiana's foreclosure rate remained at an exceptionally low 0.9% at the midpoint of the year, but this measure is distorted some by temporary foreclosure moratoriums. A deeper dive into these numbers show that the share of Hoosiers whose mortgage was at least three months past due increased more than threefold between the first quarter and third quarter of 2020. We will have to wait on future data releases to see if Indiana's foreclosure rate begins to climb again.

One other unanswered question is whether the pandemic and its associated economic slowdown will negatively impact the demographic drivers of the housing market, such as migration to the state or new household formations. While the path ahead remains far more uncertain than usual, the state's housing market has proven to be remarkably resilient up to this point.

This report will present the latest data to highlight the state of Indiana's housing market. The first section presents a detailed overview of market conditions with a focus on home sales and prices, mortgage delinquency and foreclosure, and affordability. The next section examines the demographic fundamentals

of the housing market, including household formation rates, migration and generational shifts in the population. Finally, we consider the role of housing in Indiana's economy with a look at construction trends.

Key Findings

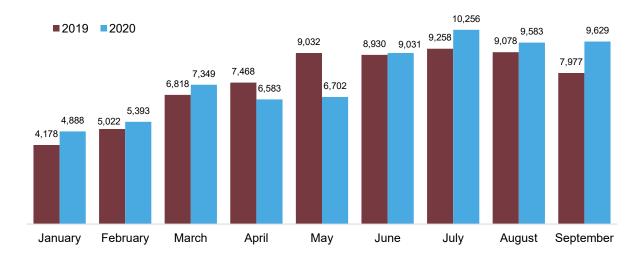
- Indiana is on pace to post a record number of existing homes sales in 2020. The state's 69,400 transactions through September represents a 2.4% increase over the same period last year, and is up 1.6% over the previous high-water mark in 2018. Furthermore, the number of pending sales in September was up better than 20% year-over-year, setting the stage for a strong close to 2020.
- While homebuyer demand remains strong, the inventory of homes on the market continues to plummet. The average of 11,400 existing homes on the market in September translates to a scant 1.5 months supply of inventory (i.e., a measure of how long it would take to exhaust the existing stock of homes on the market at the current sales rate). By comparison, the U.S. currently has an estimated 2.7 months supply. Six months of supply is the traditional benchmark for a balanced market.
- Amid this extreme sellers' market, house prices in Indiana are climbing at an unprecedented pace.
 The median price for existing home sales in the first three quarters of the year rose to \$184,900—a
 nearly 9% increase year-over-year. The Federal Housing Finance Agency's House Price Index shows
 that Indiana had the sixth-fastest rate of price appreciation among states in the last year.
- Indiana's foreclosure rate has declined dramatically in recent years and now sits at 0.9% as of the second quarter of 2020. While the headline foreclosure number remains low, mortgage delinquencies have spiked in the wake of the COVID-19 pandemic. The share of Hoosier mortgages that were at least three months past due, for instance, jumped from 1.2% during the first quarter to 3.2% by the midpoint of the year.
- One of the many positive effects of a lower foreclosure rate is that the state's homeownership rate appears to be stabilizing. Between 2006 and 2013, Indiana's homeownership rate dropped steadily from 72.1% to 68.5%. Since then, the state has seen a slight uptick in homeownership with the rate sitting at 69.3% in 2019.
- Even with rising prices, housing in Indiana remains comparatively affordable. According to the
 National Association of Realtors, each of the Indiana metro areas for which they report data ranked in
 the top one-third of all metros for housing affordability in 2018.
- The number of households in the state essentially held steady between 2018 and 2019, yet Indiana's
 average annual household formation rate over the last four years has been stronger than at any time
 since the 1990s. The state has also seen relatively strong net migration numbers the last two years.
- The number of new housing units permitted for construction in Indiana during the first three quarters
 of 2020 was up more than 5% year-over-year. This increase has been spurred by construction for
 single-family units, which has improved by 10% over the same period.

Market Conditions

Existing Home Sales on Record Pace in 2020

Like nearly every other aspect of life in 2020, the Indiana housing market was disrupted by the health and economic concerns resulting from the COVID-19 outbreak. In terms of existing home sales, the year started out well enough with transactions in the first quarter up 10% over the same period in 2019. Over the course of April and May, however, existing home sales dropped by more than 19% year-over-year before bouncing back over the summer months (see **Figure 1**). Despite the upheaval, the 69,400 sales through September 2020 represents a 2.4% increase year-over-year and puts the state on a pace to set a record-high for existing home sales in a year.

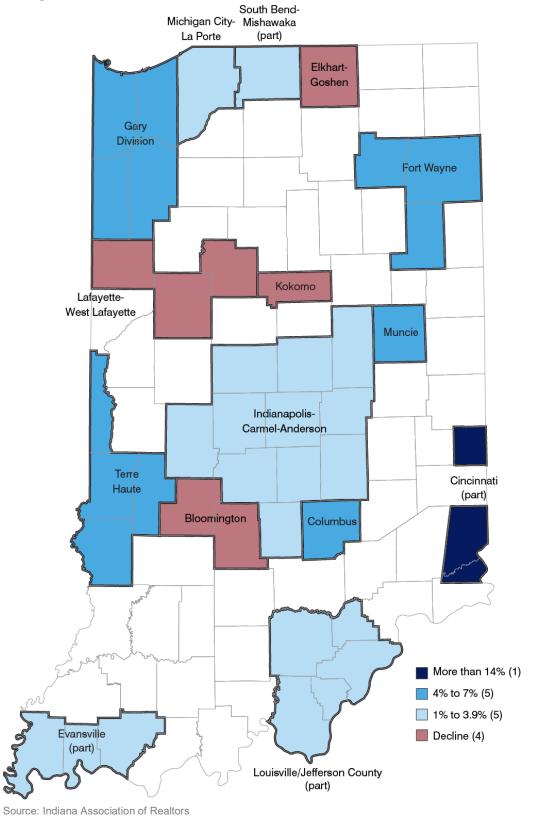
Figure 1: Indiana Existing Home Sales by Month, 2019 and 2020



Source: Indiana Association of Realtors

Looking around the state, 11 of Indiana's 15 metro areas showed improvement in year-over-year sales during the first nine months of 2020, led by the Indiana portion of the Cincinnati metro (14.4% increase), Terre Haute (7.0%), Ft. Wayne (6.2%) and Muncie (5.9%). At the other end of the spectrum, the Bloomington, Lafayette-West Lafayette, Kokomo and Elkhart-Goshen metros each saw sales drop over this period (see **Figure 2**). Sales in the Indianapolis-Carmel-Anderson metro were up 2.5% through September, and this 11-county region accounted for roughly 39% of all transactions in the state over this period.

Figure 2: Existing Home Sales by Metro Area, September 2020 Year-to-date, Year-over-year Change.



The 48 Indiana counties that are not part of a metro area combined for a 2.6% increase in sales over the first three quarters of the year. Of these non-metro counties with at least 150 sales, Marshall County had the largest increase at 28%, followed by Franklin (22%) and DeKalb (10%) counties.¹

House Prices Continue to Climb

This continued strong demand coupled with chronically tight supply of homes on the market has triggered a spike in home prices. At nearly \$170,000 last year, the median sales price for existing homes increased by 7.2% in 2019, which marks the second consecutive year with price gains above 7% (see **Figure 3**). This surge in prices has accelerated thus far in 2020, as Indiana's median price through September 2020 is up to \$184,900—an 8.8% uptick over the same period in 2019.

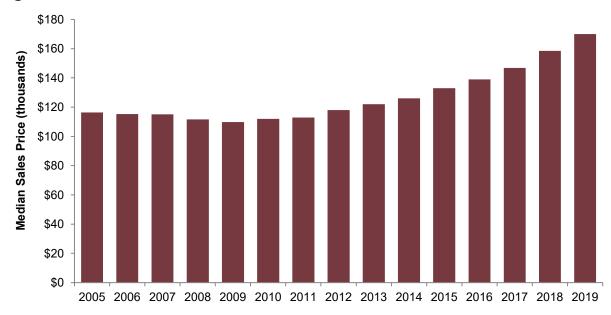


Figure 3: Indiana Median Sales Price, 2005 to 2019

Source: Indiana Association of Realtors

The sharp climb in prices over the last several years has been driven in large part by a shrinking inventory of existing homes for sale. The Indiana Association of Realtors made changes earlier this year to the ways it calculates the inventory of homes on the market, making it impossible to compare numbers for 2020 to those of previous years. That said, the fact remains that a years-long decline in the inventory of homes for sale has sparked an unprecedented rise in price gains (see **Figure 4**).

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¹ See the appendix for home sales and median sales price data for all Indiana counties.

\$185 12 \$175 10 \$165 Months' Supply of Inventory \$155 Median Price (thousands) \$145 \$135 \$125 Median Price (left axis) \$115 2 Months' Supply of Inventory (right axis) \$105 0 \$95 2012 2013 2014 2015 2016 2017 2018 2019 2020 2007 2008 2009 2010 2011

Figure 4: Median Sales Price and Months Supply, 12-Month Moving Average, January 2007 to September 2020

Source: Indiana Association of Realtors

Indiana House Prices in Perspective

Other measures also indicate that Indiana's house prices are climbing. According to the Federal Housing Finance Agency's House Price Index (HPI), Indiana has seen an annual price appreciation above 7% for 10 consecutive quarters dating back to the beginning of 2018, and the state's home prices in the second quarter of 2020 are up 7.5% year-over-year. This rate of appreciation ranked sixth-fastest nationally and outpaced neighboring Ohio (7.3%), Michigan (6.5%), Kentucky (5.9%), and Illinois (3.2%), as shown in **Figure 5**.

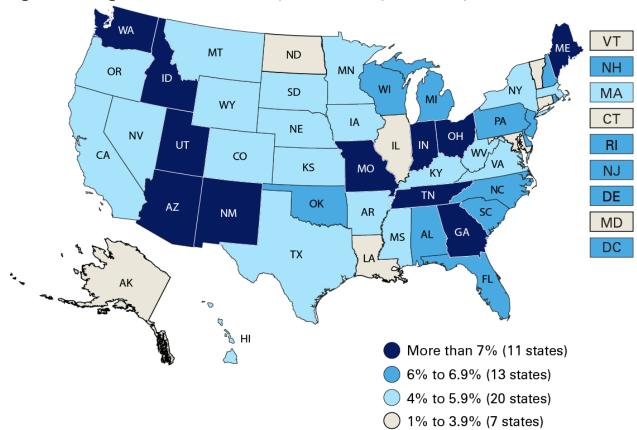


Figure 5: Change in House Price Index by State, 2019 Q2 to 2020 Q2

Source: Federal Housing Finance Agency, House Price Index (expanded data series, seasonally adjusted)

Figure 6 illustrates just how much of an outlier the recent surge in house prices has been for Indiana. Over the past three decades, both Indiana and the U.S. have had several distinct periods of house price changes. The Hoosier state saw comparatively strong gains during much of the 1990s, but its pace of growth began to slow just as the price bubble era started to emerge elsewhere. Prices began to decline in Indiana and the U.S. in 2007, but both saw a return to house price appreciation starting in 2012. Since the beginning of 2018, however, prices in Indiana have been growing at an average annualized rate of 7.4%—a much stronger pace of growth than the state has seen over a sustained period at any other time in the last 29 years.

10% 7.4% 8% 6.4% 6.0% 5.8% 6% 4.4% 4.1% 3.5% 4% 2.0% 2% 2007:3 to 2011:4 0% 1991:1 to 1999:4 2000:1 to 2007:2 2012:1 to 2017:4 2018:1 to 2020:2 -2% -2.5%

Figure 6: Average Annualized Growth in HPI over Select Periods, 1991 Q1 to 2020 Q2

Source: Federal Housing Finance Agency, House Price Index (expanded data series, seasonally adjusted)

-4%

-6%

-8%

■U.S.

Indiana

By any nominal price measure (i.e., not adjusted for inflation), such as the median sales price or the HPI, Indiana house prices fully recovered from the housing crash several years ago and the state has continued to set new record highs in these measures year after year. When Indiana's house price trend is adjusted for inflation, however, the early 2000s had long represented the peak period for house prices in the state. That changed in the first quarter of 2019 as "real" house prices in Indiana eclipsed the previous record high set back in 2002 (see **Figure 7**). Given the current state of the market, Indiana can expect to see its real house prices to continue climbing over the next year or two.

-5.8%

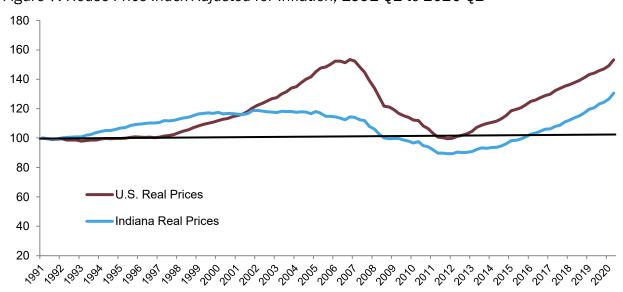


Figure 7: House Price Index Adjusted for Inflation, 1991 Q1 to 2020 Q2

Note: The HPI values are adjusted for inflation using the Consumer Price Index for all items less shelter (Series SA0L2) Source: Federal Housing Finance Agency, House Price Index (expanded data series, seasonally adjusted)

The key question is whether household incomes in Indiana can keep up with these price gains. Over the last three decades, the ratio of median sales prices to median household incomes (MHHI) in Indiana has held remarkably steady—even during the bubble years and subsequent crash. Fortunately, with an average annual growth of 6.8% between 2014 and 2019, changes in the state's median household income have kept pace with the stronger rate of house price appreciation in recent years (see **Figure 8**).

5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0

Figure 8: Ratio of Median Sales Price to Median Household Income, U.S. and Indiana, 1991 to 2019

Source: U.S. Census Bureau, Indiana Association of Realtors, National Association of Realtors

Indiana Foreclosure Rate Still Low, but Mortgage Delinquencies on the Rise

While certainly not a primary cause, one factor that has contributed to shrinking inventory and the boost in home prices is the dramatic decline in foreclosures. At the height of the housing crisis, not only did foreclosures sell at deep discounts, but they had negative effects on house prices across the board by adding to inventory at a time of weak demand and often depressed the value of homes located near foreclosed properties. The foreclosure situation has improved in recent years, however, and its effect on prices has certainly diminished.

According to the Mortgage Bankers Association, the state's foreclosure rate has dropped more than 4 percentage points from its peak of 4.9% at the end of 2011 to 0.9% in the second quarter of 2020 (see **Figure 10**). This is Indiana's lowest mark since 1997. Even with this drop, Indiana's foreclosure rate remains slightly above the U.S. average and ranks 16th-highest among states.

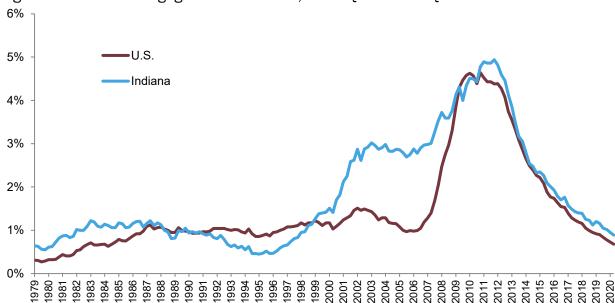


Figure 9: Share of Mortgages in Foreclosure, 1979 Q1 to 2020 Q2

Source: National Delinquency Survey, Mortgage Bankers Association

Looking Ahead

While Indiana's foreclosure rate has been in steady decline for nearly a decade, the COVID-19-induced economic slowdown in 2020 threatens to reverse this trend. While the state has yet to see any uptick in the number of homes in foreclosure, the share of Hoosiers whose mortgage was at least three months past due increased more than threefold between the first quarter and third quarter of 2020 (see **Figure 10**)

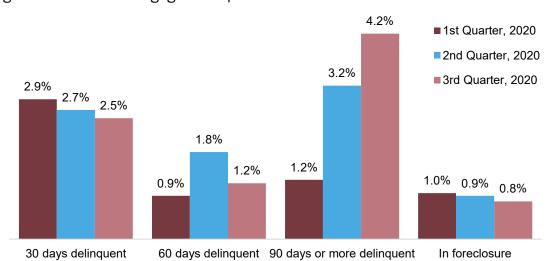


Figure 10: Indiana Mortgage Delinquencies

Source: National Delinquency Survey, Mortgage Bankers Association

While it is certainly unfortunate to see so many Hoosiers facing hardship, current conditions in the housing market will likely help minimize the number of foreclosures in Indiana if economic disruptions endure into 2021. First, with such strong price gains in recent years, many homeowners have been able to build equity quickly. According to CoreLogic, only 1.7% of Indiana homeowners with a mortgage had negative equity (i.e., owed more on their mortgage than their home is worth) during the second quarter of 2020.² This mark, which has declined steadily since peaking at nearly 12% in 2013, ranks among the lowest nationally and is less than half the U.S. share of 3.8%. Add in the tight market supply, continued strong buyer demand and historically low mortgage rates; and hopefully most homeowners who fall behind will be able to find a resolution that does not involve foreclosure.

Of course, the most important factor influencing Indiana's housing market over the next year will be how quickly and decisively we are able to overcome the COVID-19 virus and minimize its impact on the labor market. In the early days of the pandemic, Indiana saw a comparatively large unemployment shock, but its labor market has been recovering at a faster pace than the nation as a whole (see **Figure 11**). As of October 2020, the state still had approximately 117,000 fewer jobs than it had in February of this year. So even with the improvements in the economy in recent months, the road to a full recovery remains relatively long and uncertain.

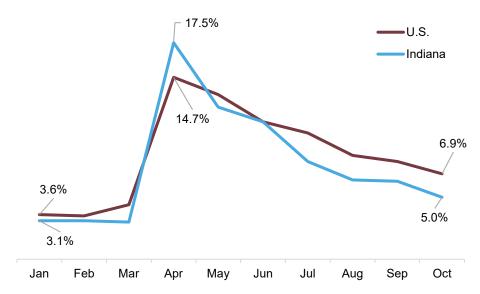


Figure 11: 2020 Unemployment Rate by Month, Seasonally Adjusted

Source: U.S. Bureau of Labor Statistics

For those who plan to wade into the market in the next year, they will find that the dynamics still heavily favor sellers. Even with climbing prices, however, housing in Indiana remains comparatively affordable. According to the National Association of Realtors, Indiana's metro areas ranked in the top one-third of all

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² CoreLogic, "Homeowner Equity Insights," Second Quarter 2020 (accessed on 10/5/2020), <u>www.corelogic.com/insights-download/homeowner-equity-report.aspx</u>

U.S. metros in affordability in 2018.³ That said, the sharp rise in home prices certainly has put a dent in this measure (see **Figure 12**). Rising prices will likely continue to impact affordability in the near term

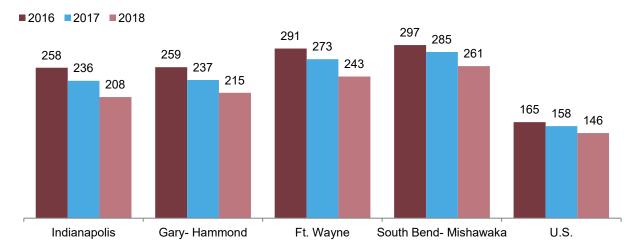


Figure 12: Housing Affordability Index, 2016 to 2018

Note: An index value of 100 means that a metro's median household income is exactly enough to qualify for a mortgage on a home priced at the median level for that area. Values above 100 indicate that the median income is more than enough to qualify. Ft. Wayne's index value was 243 in 2018, meaning that its median household income was 243 percent of the income needed for a mortgage on the median-priced house.

Source: National Association of Realtors

One factor that should continue to be a boon to potential buyers is the availability of historically low mortgage interest rates. The 30-year conventional rate has been in steep decline since the end of 2018 and now sits at a record low 2.9% in September 2020. Many market-watchers expect to see mortgage rates remain low for some time. In their September economic forecast, for instance, the Mortgage Bankers Association expects rates to climb only slightly higher to an average of 3.3% next year.

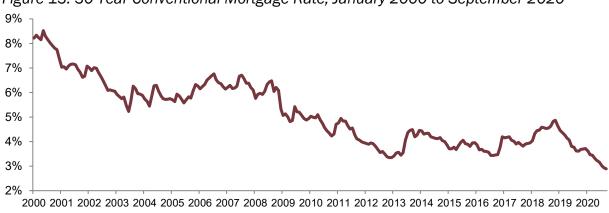


Figure 13: 30-Year Conventional Mortgage Rate, January 2000 to September 2020

Source: Freddie Mac

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³ National Association of Realtors, "Housing Affordability Index: Metro Affordability 2018," www.nar.realtor/research-and-statistics/housing-affordability-index

Demographic Fundamentals

Demographic Drivers of Housing Market Show Improvements Prior to Pandemic

After being a drag on Indiana housing for several years, the demographic drivers of the market continue to show some improvement. Between 2010 and 2017, Indiana grew by only 24,800 residents per year, which is less than half the average annual gain during the 1990s (53,600 per year) and still well below the average mark set during the 2000s (40,300). In 2018 and 2019, however, the state added roughly 37,000 new residents per year, marking the state's strongest gains in a decade (see **Figure 14**).

An additional bright spot in the population numbers is that some important age groups—from the perspective of the housing market—are showing growth. Indiana's population between the ages of 25 and 44, for instance, grew by nearly 19,000 in 2019. This marks the fifth consecutive year that this young-adult group has grown, after declining for at least 12 years previously. This age group, which is typically responsible for net gains in new households and home purchases, will continue to grow as the comparatively large millennial generation comes of age.

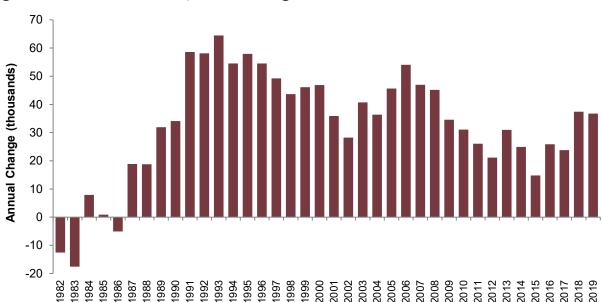


Figure 14: Indiana Annual Population Change, 1982 to 2019

Source: U.S. Census Bureau population estimates

The state's uptick in population growth over the last two years has been driven by relatively strong migration to the state. After averaging a net in-migration of just 1,600 residents per year between 2010 and 2017, Indiana attracted a net inflow of nearly 18,700 residents annually over the last two years.

Around the state, 52 Indiana counties had a net in-migration of residents. In terms of the rate of migration, Hancock County led the way with a net inflow of 18.9 movers per 1,000 residents in 2019 (see **Figure 15**). Other counties with high migration rates include Hamilton (17.0 movers per 1,000 residents), Hendricks (16.5) and Johnson (9.9) counties. A total of 40 Indiana counties had a net outflow of residents last year.

Steuben LaGrange St. Joseph Elkhart LaPorte Porter Lake Noble DeKalb Marshall Starke Kosciusko Whitley Allen **Fulton** Pulaski Jasper Newton Wabash White Miam Cass Adams Wells **Benton** Carroll Grant Black-Howard Jay ford Warren Clinton **Tipton** Delaware Madison Randolph Fountain Hamilton **Boone** Vermillion Henry Wayne Hancock Marion Parke Hendricks Putnam Fayette Union Rush Shelby Johnson Morgan Vigo Franklin Clay Owen Decatur Brown Monroe Ripley Sullivan Greene Jennings 'Õhio Jackson Switzerland Lawrence Jefferson Daviess Martin Knox Scott Washington Net In-Migration Orange Clark More than 16% (3) Pike 5% to 10% (14) **Dubois** ւFloyd 🛭 Gibson Crawford 0% to 4.9% (35) Harrison Net Out-Migration Warrick Perry Vander-Posey -0.1% to -4.9% (28) Spencer burgh -5% to -16.7% (12)

Figure 15: Net Migration Rates per 1,000 Residents, 2019

Source: U.S. Census Bureau population estimates

Along with the upbeat news on population gains, Indiana has also seen stronger household formation rates in recent years. While the latest data on this measure show that the number of households in the state essentially held steady between 2018 and 2019, Indiana's average annual rate of growth over the last four years has been stronger than at any time in the last two decades (see **Figure 16**).

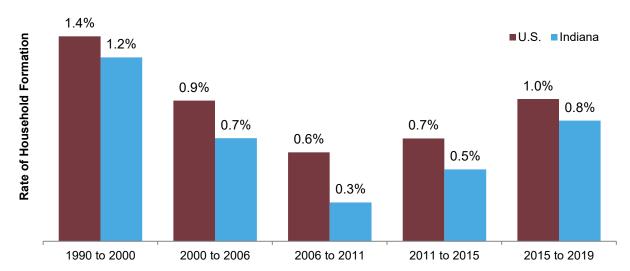


Figure 16: Average Annual Household Formation Rates, 1990 to 2019

Source: U.S. Census Bureau, Decennial Census and American Community Survey

Indiana's Homeownership Rate Holds Steady in 2019

After plunging more than 3 percentage points from 72.1% in 2006 to 68.5% in 2013, Indiana's homeownership rate appears to have stabilized recently. The state's homeownership rate weighed-in at an estimated 69.3% in 2019, and there has not been any statistically significant shifts in this measure over the past three years.

While a stable homeownership rate is certainly a positive development for the state, this overall rate obscures the fact that Indiana has seen more significant declines for most age groups. Since 2000, for instance, the homeownership rates for Hoosiers in the 25-to-34 and 35-to-44 age groups have declined by 6 percentage points and 7 percentage points, respectively (see **Figure 17**). Over the same period, the homeownership rate for those between the ages of 45 and 64 have shown similar drops. Only Indiana's senior age group has seen an uptick in its homeownership rate over the last 16 years.

The difference between the comparatively small change in the state's overall homeownership rate compared to these sizable declines in many age groups is explained by the fact that the Indiana population is growing older and the likelihood of being a homeowner increases with age. With the baby boom generation now between the ages of 56 and 74, this age group holds a larger share of the state's population than ever before. This is also the prime age group for homeownership. As a result, the continued aging of this outsized cohort will boost the state's total homeownership rate, even if age-specific rates only hold constant going forward.

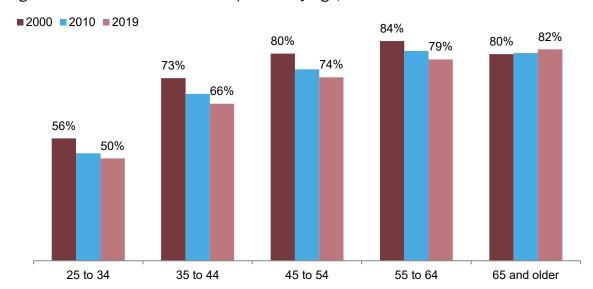


Figure 17: Indiana Homeownership Rates by Age, 2000 to 2019

Source: U.S. Census Bureau, Decennial Census and American Community Survey

Looking Ahead

While the demographic trends presented here paint a relatively rosy picture, the obvious shortcoming in the analysis is that it refers to a pre-pandemic world. We will have to wait a bit longer for the data, but it is likely that the COVID-19 situation and accompanying economic downturn will have at least a short-term dampening effect on the demographic drivers of the housing market. In the face of so much disruption and uncertainty, it is reasonable to expect a further decline in fertility rates (these rates have been on the slide for a decade already), a slowdown in migration and fewer young adults striking out on their own.

If some of these trends come to fruition, it could put a temporary halt to Indiana's strong household formation rates of late. Household formations are driven by two factors: so-called headship rates (i.e., the number of households divided by the adult population) and the level of migration to the state. Headship rates for younger adults still haven't recovered from the damage caused by the Great Recession. In 2007, for instance, approximately 50% of Hoosiers between the ages of 25 and 34 were the head of a household, but this mark dropped to roughly 45% in 2019 (see **Figure 18**). There are sizeable declines for the 35-to-44 and 45-to-54 age groups as well. If these pre-recession headship rates were still in effect in 2019, Indiana would have had approximately 60,000 more households. This shortfall could deepen if the events of 2020 further dent the state's headship rates.

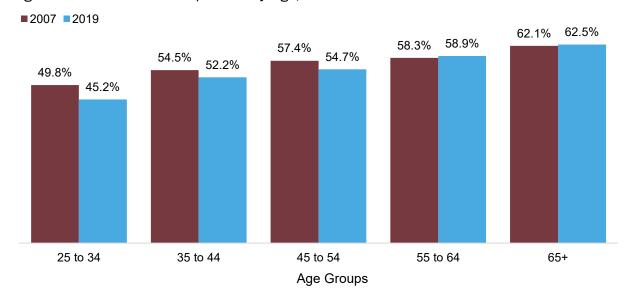


Figure 18: Indiana Headship Rates by Age, 2007 and 2019

Source: U.S. Census Bureau, American Community Survey

Again, in the absence of relevant data, we can only speculate on the ways the pandemic may impact demographic trends. If there are any negative side effects, it is possible they are nothing more than temporary disruptions with no lasting impacts on the labor force or housing market. When conditions do return to normal, larger generational shifts will do more to shape the market in the coming years.

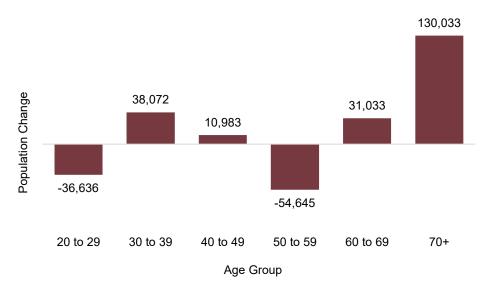
One key shift will be the continued emergence of the sizeable millennial generation. Between 2020 and 2025, the number of Hoosiers between the ages of 30 and 44 will increase by a projected 51,000 residents (millennials will be between 29 and 44 years old in 2025). This cohort is already making its mark on the existing home market, accounting for 38% of all sales in the U.S. in 2019—the largest share of any defined generation group.⁴ Furthermore, recent research indicates that demand for owner-occupied housing by young adults is gaining momentum.⁵

The aging of the baby boom generation will also influence the housing market in the years ahead. The oldest members of this generation turned 65 in 2011 and the entire cohort will be of traditional retirement age by 2030. In the next five years alone, the number of Hoosier ages 60 or older is expected to increase by roughly 160,000, according to the IBRC's population projections (see **Figure 19**).

⁴ National Association of Realtors Research Group, "2020 Home Buyers and Sellers Generational Trends Report," March 2020, https://cdn.nar.realtor/sites/default/files/documents/2020-generational-trends-report-03-05-2020.pdf

⁵ Dowell Myers, Hyojung Lee, and Patrick Simmons, "Cohort Transitions and Age Group Analysis of Millennial Homeownership Demand," Fannie Mae Working Paper, May 2, 2018.

Figure 19: Indiana's Projected Population Change by Age Group, 2020 to 2025



Source: Indiana Business Research Center

This process will impact the housing market in a number of ways, such as increasing demand for senior-oriented housing and, as boomers leave their current residences, boosting the rate at which existing homes go on the market. That said, there is evidence that a sizable share of boomers plan to spend their retirement years in their current homes, or "age in place." In a 2019 national survey by Chase and Pulsenomics, 52% of boomers stated that they do not believe that they will ever move from their current home. The process of the process of

⁶ Dowell Myers and Patrick Simmons, "The Coming Exodus of Older Homeowners," *Fannie Mae Perspectives Blog*, July 11, 2018, www.fanniemae.com/research-and-insights/perspectives/coming-exodus-older-homeowners

⁷ "Downsize or Right Size? Baby Boomers Looking to Renovations in Order to Age in Place," *Chase Media Center*, January 11, 2019, https://media.chase.com/news/downsize-or-right-size-baby-boomers-are-looking-to-renovations-in-order-to-age-in-place

Housing and the Economy

Residential Construction Continues to Improve

Residential Fixed Investment (RFI)—a component of GDP that includes investment in new construction and home improvements—is the most commonly watched indicator of housing's contribution to the economy. One reason that RFI is widely followed is that it tends to be a leading indicator of economic activity since RFI typically peaks before the start of a recession and it tends to rebound before a downturn ends, helping to pull the country out of its slump.

While residential investment has picked up in recent years, it remains low by historical standards. Between 1950 and 2007, RFI accounted for 4.9% of annual U.S. GDP on average. As the housing crash and subsequent recovery have played out, however, RFI's share of economic activity bottomed out at 2.5% in 2011 and stood at 3.8% in 2019.

There is no measure of RFI at the state level, but other indicators such as the value of annual building permits tend to follow the same path. **Figure 20** compares the change in national RFI to Indiana's annual value of building permits. Both indicators peaked in 2005 and fell dramatically through 2011. The value of residential construction in Indiana has rebounded since then with an average annual increase of nearly 14% per year through 2018. With a jump of only 1.7% last year, however, 2019 represented Indiana's lowest annual increase in this measure over the last eight years.

⁸ According to the U.S. Bureau of Economic Analysis, RFI consists of the purchase of residential structures and the residential equipment that is owned by landlords and rented to tenants. Investment in residential structures includes the new construction of housing units, improvements to existing housing units, the purchase of manufactured homes and brokers' commissions on sales.

⁹ Kathryn Byun, "The U.S. Housing Bubble and Bust: Impacts on Employment," Monthly Labor Review, December 2010.

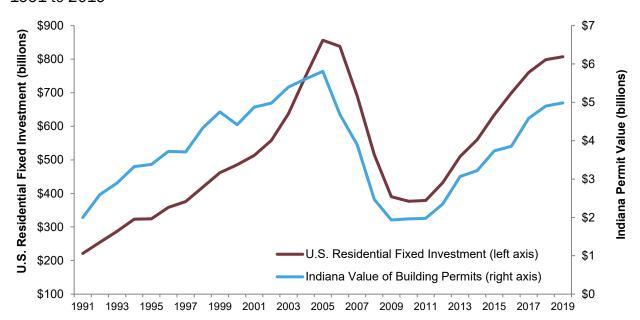


Figure 20: U.S. Residential Fixed Investment and Indiana Value of Building Permits, 1991 to 2019

Source: U.S. Bureau of Economic Analysis and U.S. Census Bureau

Housing's Impact on Employment

There were building permits issued for 22,309 new residential units in Indiana in 2019. This represents a nearly 4% increase over 2018 and is the state's highest total since 2007. New single-family homes account for the lion's share of the state's building permits in 2018 with 16,308 new units—a -0.7% decrease year-over-year. While growth in overall residential constructions is a positive development, the number of new units in 2019 was still only 57% of the average annual number of new units built in Indiana between 1999 and 2005.

Of course, this lower level of new housing permits translates into fewer jobs available in residential construction. Indiana lost 7,850 jobs in this industry from 2005 through 2011, but has since regained nearly 3,800 of those positions over the last eight years. At the end of the day, however, Indiana has roughly 4,200 fewer residential construction jobs in 2019 than it had at its peak—a 22% decline.

The employment impacts of this decline and slow recovery don't end with the construction industry. With fewer housing units built, there is a reduced demand for other goods and services related to the industry, such as architecture and design, building materials and home furnishings. According to IMPLAN economic modeling data, residential construction has an employment multiplier of 1.8 in Indiana, meaning that each job in this industry supports an additional 0.8 jobs in other industries throughout the state. If this multiplier holds, the deficit of 4,200 construction jobs in 2019 translates to a loss of an estimated 3,350 jobs in other industries in the state.

Looking Ahead

The pace of residential construction has continued to accelerate so far in 2020, with the number of new permitted units in Indiana up better than 5% year-over-year through September. Several industry forecasts predict that construction activity at the national level will continue to pick up over the next couple of years. Fannie Mae's October 2020 outlook, for instance, forecasts a 6% increase in housing starts in

2021. If residential construction could see a similar uptick in Indiana, then housing will come closer to assuming its usual role in the state's economy.

Several indicators support this positive outlook for residential construction. First, vacancy rates continue to decline in Indiana, indicating a tightening housing market. Both the rental vacancy rate (6.7%) and the homeowner vacancy rate (1.6%) in Indiana have seen a general pattern of decline for more than a decade (see **Figure 21**).

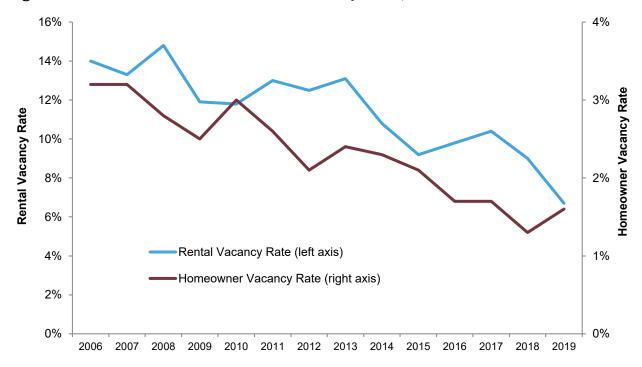


Figure 21: Indiana Homeowner and Rental Vacancy Rates, 2006 to 2019

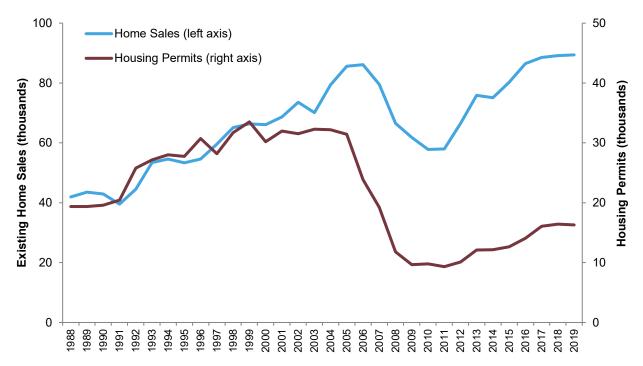
Source: U.S. Census Bureau

Another sign that new construction should continue to improve is the wide gap between the number of existing home sales in the state and the number of new single-family permits. From 1988 to 2005, there was a fairly consistent ratio of approximately two existing home sales for each single-family building permit in Indiana (see **Figure 22**). In 2019, however, that ratio was nearly six-to-one. Given these dynamics, it's no wonder that a recent analysis by Freddie Mac identified Indiana as one of the few Midwest states (along with Minnesota and Wisconsin) to have a housing shortage based on its "dynamic" estimate of state housing stock situations.¹⁰

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¹⁰ "The Housing Supply Shortage: State of the States," *Freddie Mac Economic & Housing Research Insight*, February 2020.

Figure 22: Indiana Existing Home Sales and Single-Family Housing Permits, 1988 to 2019



Source: U.S. Census Bureau, Moody's Economy.com, Indiana Association of Realtors

Conclusion

So far in 2020, no obstacle has proven too daunting for motivated homebuyers. Faced with a global pandemic, economic disruption, surging house prices and sparse market inventory, Indiana is on pace for a record number of existing home sales this year. Even new single-family construction is set for its strongest year since 2007—although residential construction remains well below pre-Great Recession levels.

Looking ahead, the key questions in the near term will be whether the recent spike in mortgage delinquencies will force the state's foreclosure rate upward and how long it will take to see housing supply respond to demand. With regard to foreclosures, hopefully improvements in the labor market along with house price gains in recent years will help solve mortgage delinquency issues without the need for foreclosures. As for inventory, further growth in residential construction would go a long way in helping to alleviate the problems. The incredibly tight existing home market coupled with historically low mortgage interest rates will likely help boost housing starts next year.

Of course, with the COVID-19 pandemic still with us, the outlook is far more uncertain than usual. Barring a catastrophic turn on either the public health or economic fronts, however, the Indiana housing market should be set for another strong year in 2021.

Appendix

Table 2: Home Sales and Median Sales Price by County

County	Existing Home Sales, Jan to Sept 2019	Existing Home Sales, Jan to Sept 2020	Percent Change	Median Price, Jan to Sept 2019	Median Price, Jan to Sept 2020	Percent Change
Indiana Total	67,761	69,414	2.4%	\$169,900	\$184,900	8.8%
Adams	211	189	-10.4%	\$112,000	\$124,450	11.1%
Allen	4,289	4,569	6.5%	\$163,000	\$175,000	7.4%
Bartholomew	867	905	4.4%	\$186,000	\$190,000	2.2%
Benton	60	69	15.0%	\$92,750	\$117,200	26.4%
Blackford	81	62	-23.5%	\$73,500	\$69,900	-4.9%
Boone	973	1,073	10.3%	\$284,268	\$299,000	5.2%
Brown	226	243	7.5%	\$237,900	\$259,000	8.9%
Carroll	155	102	-34.2%	\$127,000	\$131,750	3.7%
Cass	288	290	0.7%	\$85,450	\$88,500	3.6%
Clark	1,614	1,697	5.1%	\$175,000	\$190,000	8.6%
Clay	152	172	13.2%	\$104,450	\$117,250	12.3%
Clinton	165	142	-13.9%	\$132,000	\$144,000	9.1%
Crawford	58	56	-3.4%	\$118,000	\$102,000	-13.6%
Daviess	165	162	-1.8%	\$120,000	\$129,950	8.3%
Dearborn	411	462	12.4%	\$185,000	\$203,500	10.0%
Decatur	246	251	2.0%	\$141,750	\$154,500	9.0%
DeKalb	421	463	10.0%	\$143,000	\$152,000	6.3%
Delaware	909	963	5.9%	\$98,000	\$113,000	15.3%
Dubois	319	348	9.1%	\$163,500	\$178,250	9.0%
Elkhart	1,723	1,666	-3.3%	\$159,000	\$175,000	10.1%
Fayette	115	123	7.0%	\$69,900	\$75,250	7.7%
Floyd	941	935	-0.6%	\$179,950	\$200,000	11.1%
Fountain	41	46	12.2%	\$89,000	\$103,500	16.3%
Franklin	150	183	22.0%	\$159,900	\$157,000	-1.8%
Fulton	112	109	-2.7%	\$91,000	\$107,500	18.1%

County	Existing Home Sales, Jan to Sept 2019	Existing Home Sales, Jan to Sept 2020	Percent Change	Median Price, Jan to Sept 2019	Median Price, Jan to Sept 2020	Percent Change
Gibson	236	218	-7.6%	\$118,250	\$130,000	9.9%
Grant	534	528	-1.1%	\$90,000	\$102,950	14.4%
Greene	141	151	7.1%	\$115,000	\$123,500	7.4%
Hamilton	5,581	5,921	6.1%	\$286,963	\$314,000	9.4%
Hancock	1,150	1,104	-4.0%	\$203,000	\$225,000	10.8%
Harrison	349	369	5.7%	\$165,000	\$174,200	5.6%
Hendricks	2,353	2,367	0.6%	\$217,000	\$240,000	10.6%
Henry	325	347	6.8%	\$99,900	\$94,300	-5.6%
Howard	1,056	1,006	-4.7%	\$117,000	\$128,000	9.4%
Huntington	362	376	3.9%	\$124,900	\$130,000	4.1%
Jackson	415	366	-11.8%	\$137,450	\$155,000	12.8%
Jasper	290	308	6.2%	\$188,800	\$196,250	3.9%
Jay	98	97	-1.0%	\$78,500	\$87,950	12.0%
Jefferson	259	276	6.6%	\$145,500	\$146,250	0.5%
Jennings	159	168	5.7%	\$132,500	\$133,750	0.9%
Johnson	2,197	2,218	1.0%	\$199,995	\$215,500	7.8%
Knox	208	199	-4.3%	\$103,400	\$108,675	5.1%
Kosciusko	776	738	-4.9%	\$177,250	\$195,000	10.0%
LaGrange	157	129	-17.8%	\$155,000	\$164,900	6.4%
Lake	4,545	4,728	4.0%	\$174,700	\$184,900	5.8%
LaPorte	938	969	3.3%	\$144,500	\$160,000	10.7%
Lawrence	403	405	0.5%	\$120,000	\$138,900	15.8%
Madison	1,264	1,250	-1.1%	\$120,000	\$135,000	12.5%
Marion	11,340	11,460	1.1%	\$160,000	\$175,500	9.7%
Marshall	262	335	27.9%	\$155,000	\$164,800	6.3%
Martin	34	43	26.5%	\$122,500	\$149,000	21.6%
Miami	230	227	-1.3%	\$82,000	\$92,000	12.2%
Monroe	1,492	1,346	-9.8%	\$219,900	\$229,900	4.5%
Montgomery	436	404	-7.3%	\$127,000	\$143,500	13.0%
Morgan	805	873	8.4%	\$175,000	\$195,000	11.4%
Newton	133	119	-10.5%	\$120,000	\$152,500	27.1%

County	Existing Home Sales, Jan to Sept 2019	Existing Home Sales, Jan to Sept 2020	Percent Change	Median Price, Jan to Sept 2019	Median Price, Jan to Sept 2020	Percent Change
Noble	351	360	2.6%	\$137,000	\$140,000	2.2%
Ohio	37	42	13.5%	\$142,750	\$169,000	18.4%
Orange	30	32	6.7%	\$95,000	\$134,000	41.1%
Owen	135	110	-18.5%	\$148,000	\$160,000	8.1%
Parke	53	38	-28.3%	\$87,500	\$94,000	7.4%
Perry	91	43	-52.7%	\$116,500	\$100,500	-13.7%
Pike	70	74	5.7%	\$88,950	\$129,900	46.0%
Porter	1,834	1,997	8.9%	\$217,000	\$230,000	6.0%
Posey	166	151	-9.0%	\$139,900	\$147,900	5.7%
Pulaski	71	62	-12.7%	\$99,900	\$95,000	-4.9%
Putnam	356	421	18.3%	\$155,500	\$165,000	6.1%
Randolph	171	170	-0.6%	\$78,500	\$85,750	9.2%
Ripley	179	177	-1.1%	\$149,900	\$155,000	3.4%
Rush	5	1	-80.0%	\$74,500	\$117,900	58.3%
Scott	160	197	23.1%	\$130,400	\$140,000	7.4%
Shelby	426	402	-5.6%	\$139,900	\$149,400	6.8%
Spencer	180	168	-6.7%	\$148,000	\$150,000	1.4%
Starke	172	159	-7.6%	\$112,000	\$125,000	11.6%
Steuben	351	362	3.1%	\$160,000	\$214,950	34.3%
St. Joseph	2,765	2,820	2.0%	\$145,000	\$154,000	6.2%
Sullivan	94	69	-26.6%	\$80,000	\$75,000	-6.3%
Switzerland	58	72	24.1%	\$137,500	\$140,000	1.8%
Tippecanoe	1,805	1,720	-4.7%	\$183,000	\$193,200	5.6%
Tipton	112	97	-13.4%	\$135,250	\$125,000	-7.6%
Union	3	12	300.0%	\$87,000	\$102,500	17.8%
Vanderburgh	1,988	2,049	3.1%	\$136,500	\$144,000	5.5%
Vermillion	66	80	21.2%	\$69,900	\$84,000	20.2%
Vigo	840	912	8.6%	\$115,400	\$122,900	6.5%
Wabash	230	242	5.2%	\$94,650	\$116,000	22.6%
Warren	35	47	34.3%	\$145,000	\$139,000	-4.1%
Warrick	738	743	0.7%	\$198,000	\$198,000	0.0%

County	Existing Home Sales, Jan to Sept 2019	Existing Home Sales, Jan to Sept 2020	Percent Change	Median Price, Jan to Sept 2019	Median Price, Jan to Sept 2020	Percent Change
Washington	198	180	-9.1%	\$110,000	\$129,900	18.1%
Wayne	NA	278	NA	NA	\$119,900	NA
Wells	265	261	-1.5%	\$135,000	\$146,400	8.4%
White	200	210	5.0%	\$146,500	\$178,750	22.0%
Whitley	306	331	8.2%	\$164,150	\$165,000	0.5%

Source: Indiana Association of Realtors