COMING UP SHORT

HOUSING THE REGION'S FUTURE WORKFORCE

SUMMER 2018

MIBOR REALTOR® ASSOCIATION

BAGI

greenstreet development • brokerage • consulting

Lisa Sturtevant & Associates, LLC

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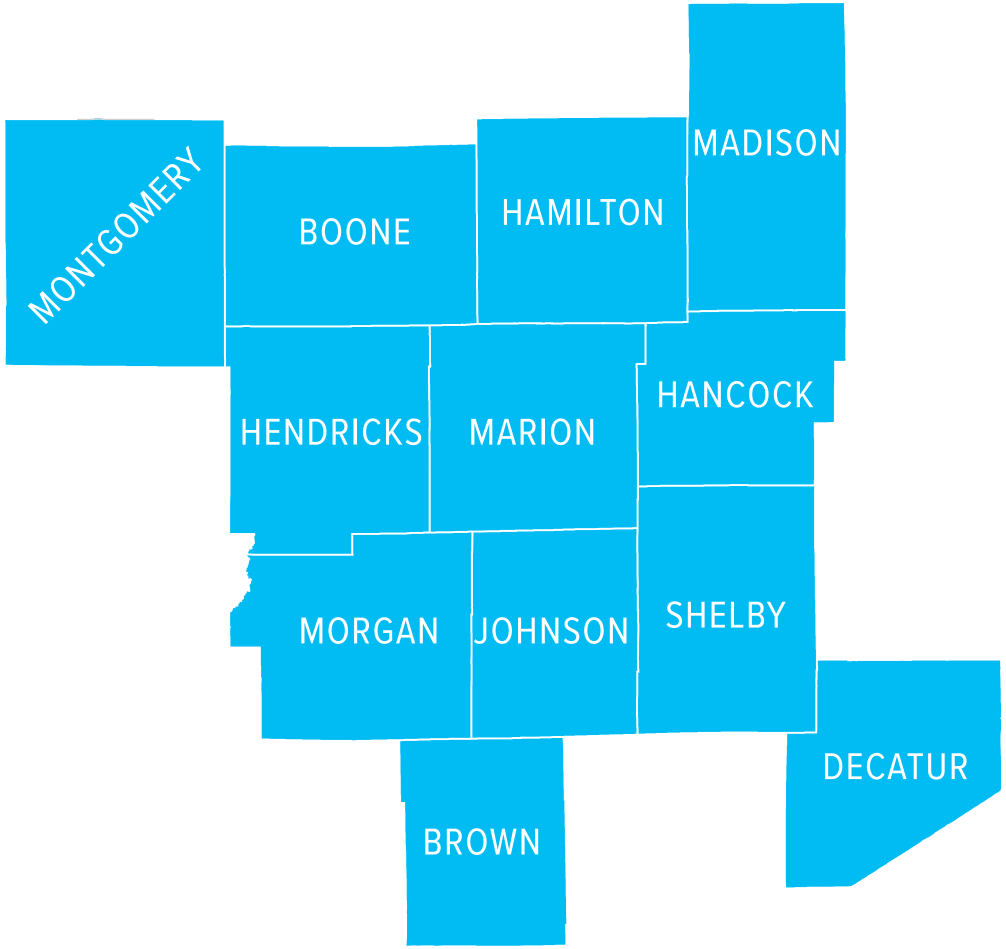


DEFINITIONS

INDIANAPOLIS REGION

As defined for this analysis, the Indianapolis Region includes Boone, Brown, Decatur, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Montgomery, Morgan, and Shelby counties.

THE INDIANAPOLIS REGION IS UNDERBUILDING EACH YEAR BY

1,750 UNITS

RECENT CONSTRUCTION TRENDS WON'T MEET THE DEMAND FOR A PROJECTED 9,000 NEW HOUSING UNITS ANNUALLY.

WHAT IS THE LINK BETWEEN HOUSING AVAILABILITY & REGIONAL ECONOMIC GROWTH?

An insufficient supply of housing has slowed economic growth nationally. Housing production across the US and in the Indianapolis Region has not kept up with demand.

AT THE LOCAL LEVEL, HARD DATA AND ANECDOTES FROM BUSINESSES AND WORKERS DEMONSTRATE THAT MORE HOUSING OPTIONS:

HELP PEOPLE BOTH LIVE AND WORK IN THE COMMUNITY, leading to shorter commutes and less traffic.

MAKE IT EASIER TO ATTRACT AND RETAIN WORKERS.

PROMOTE INCOME INTEGRATION, which is associated with faster overall economic growth.

BROADEN THE TAX BASE, which occurs with increased economic activity.

> “HOUSING PRODUCTION THAT HAS NOT KEPT PACE WITH POPULATION GROWTH COSTS THE US $400 BILLION (OVER A 20-YEAR PERIOD) IN LOST GDP.”

Source: Why do Cities Matter? Local Growth and Aggregate Growth, National Journal of Economic Research, 2015; Barriers to Shared Growth: The Case of Land Use Regulation on Economic Rents, 2015; Housing Underproduction in the US, Holland Government Affairs, Up for Growth, and ECONorthwest, 2018

UNDERPRODUCTION OF HOUSING AFFECTS THE ENTIRE ECONOMY.

Underproduction causes the labor force to suffer from limited availability of homes and higher home prices.

Less workers attracted to the region can cause economic growth to be stalled as jobs go unfilled.

Ultimately, the region as a whole becomes less competitive with its peers, making it hard to attract people, jobs, and investments.

AND IT AFFECTS PEOPLE & COMMUNITIES DIFFERENTLY.

The effects of a housing shortage may not be immediately felt by everyone in the community. However, eventually the entire community will be negatively affected in one way or another.

BELOW MEDIAN WAGE WORKERS are the first to feel the pressures from higher rents and prices because there is an insufficient supply of attainable housing.

Impact #1: households are forced to move farther out resulting in increased transportation cost and traffic.

Impact #2: businesses have harder time finding workers resulting in fewer restaurants, retail, and health care options in your community.

ABOVE MEDIAN WAGE WORKERS have more housing choices; however, even these households will face affordability challenges if there is not a sufficient supply of housing, at the right prices and in the right locations.

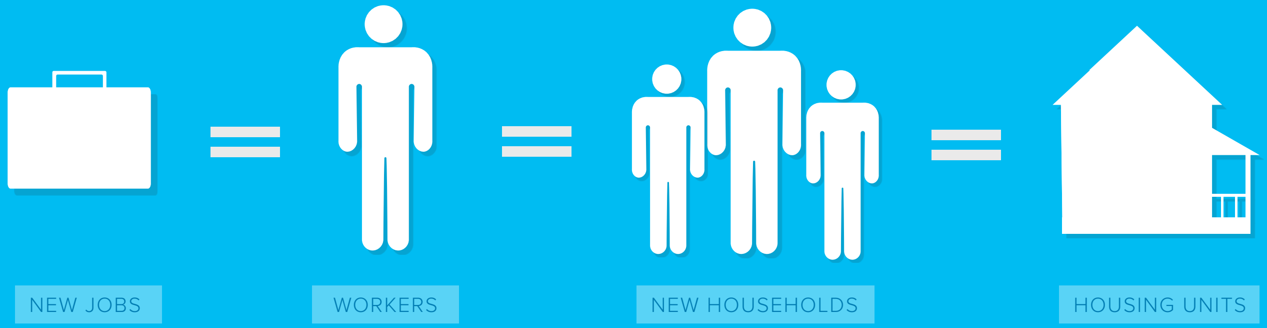
Impact #1: households are forced to spend more on housing, resulting in less spending on goods and services that support the local economy.

Impact #2: without housing choices in their desired price range, households that are able to, will leave the region for other areas.

BUSINESS ATTRACTION can be negatively affected if the Indianapolis Region does not see housing as a key part of their economic development strategy.

Businesses are increasingly saying that they are looking at quality of life, economic diversity, and cultural tolerance as part of their relocation and expansion plans.

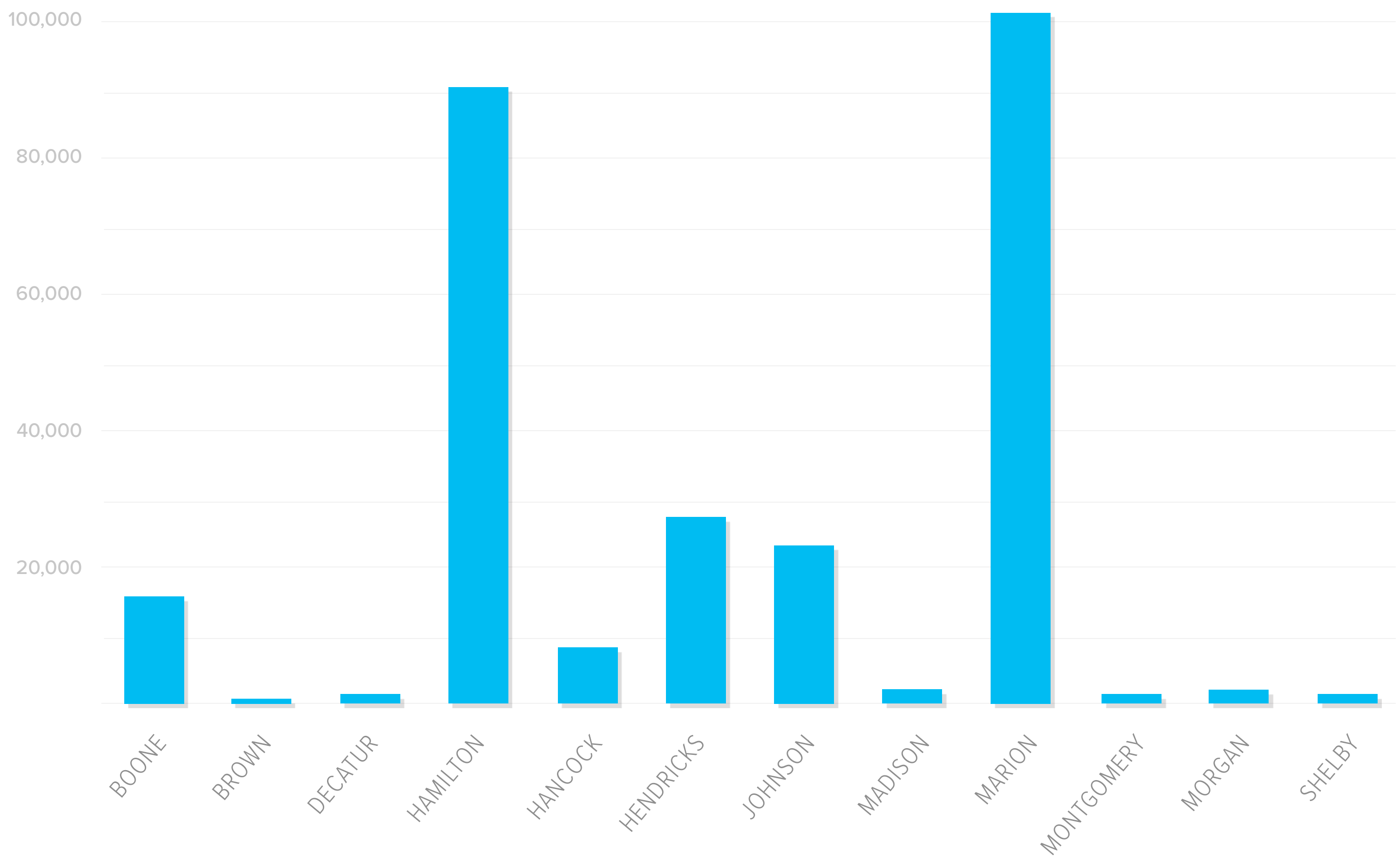
HOW DO WE KNOW HOW MUCH HOUSING IS NEEDED?



OVER THE NEXT 20 YEARS, THE INDIANAPOLIS REGION IS PROJECTED TO GAIN 274,576 NET NEW JOBS.

Today there are just over 1 million jobs in the Indianapolis Region today. Over the next 20 years, Marion and Hamilton Counties are expected to see the highest job growth.

INDIANAPOLIS REGION PROJECTED NET NEW JOBS*, 2018-2038



*Net new jobs defined as jobs that did not exist prior to 2018.
Source: Woods & Poole; Lisa Sturtevant & Associates

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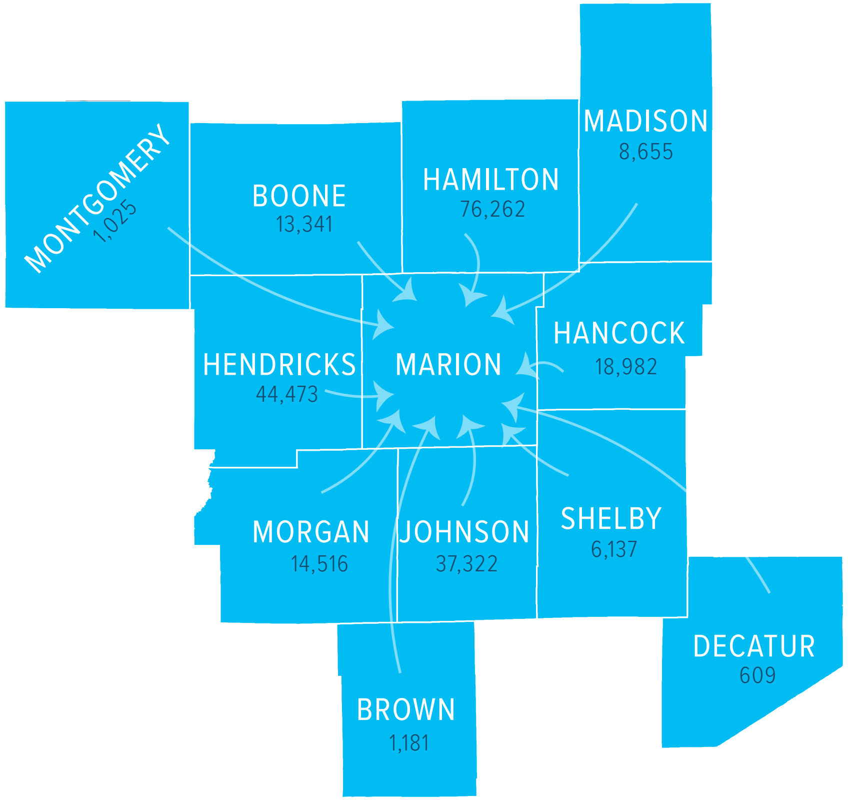
COMMUTING PATTERNS ARE NOT EXPECTED TO CHANGE.

While Marion and Hamilton Counties are expected to capture the largest share of job growth, other counties will continue to experience housing demand due to commuting patterns. Within every county, some portion of residents commute outside the Region* for work.

INDIANAPOLIS REGION
Commuting Patterns into Marion Co.*

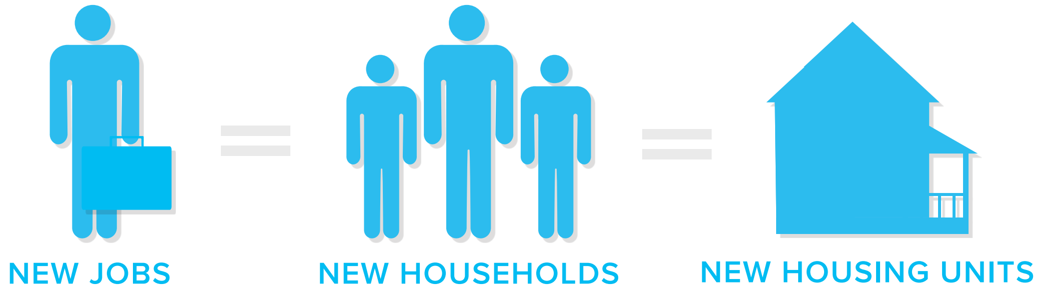


COMMUTING PATTERNS

	Live & Work in Same County	Live in & Commute Outside Region
Boone	53%	10%
Brown	74%	18%
Decatur	63%	28%
Hamilton	58%	6%
Hancock	62%	11%
Hendricks	53%	4%
Johnson	62%	5%
Madison	77%	14%
Marion	63%	5%
Montgomery	79%	14%
Morgan	73%	11%
Shelby	66%	13%

*Numbers shown reflect jobs commuting into Marion County from the county in which they live. Commuting patterns between other counties are not shown.
Source: US Census 2009-2013 County to County community flow file

PROJECTED JOB GROWTH WILL DRIVE DEMAND FOR NEW HOUSING UNITS.



274,576
NET NEW JOBS

=

180,257
NET NEW UNITS*

Employment-driven demand was calculated from forecasted job growth which was then analyzed by age distribution or workers, household composition based on 10 household types, number of earners per household, and household incomes to estimate the type, tenure, and price point of housing needed over the next 20 years.

*Represents employment-driven demand only. Additional demand could be 1.8 times the employment-driven demand, or more than 324,000 net new units. Prior studies in Washington DC and Minneapolis, MN found that total housing demand tended to be between 1.5 and 2.0 times the employment-driven demand.

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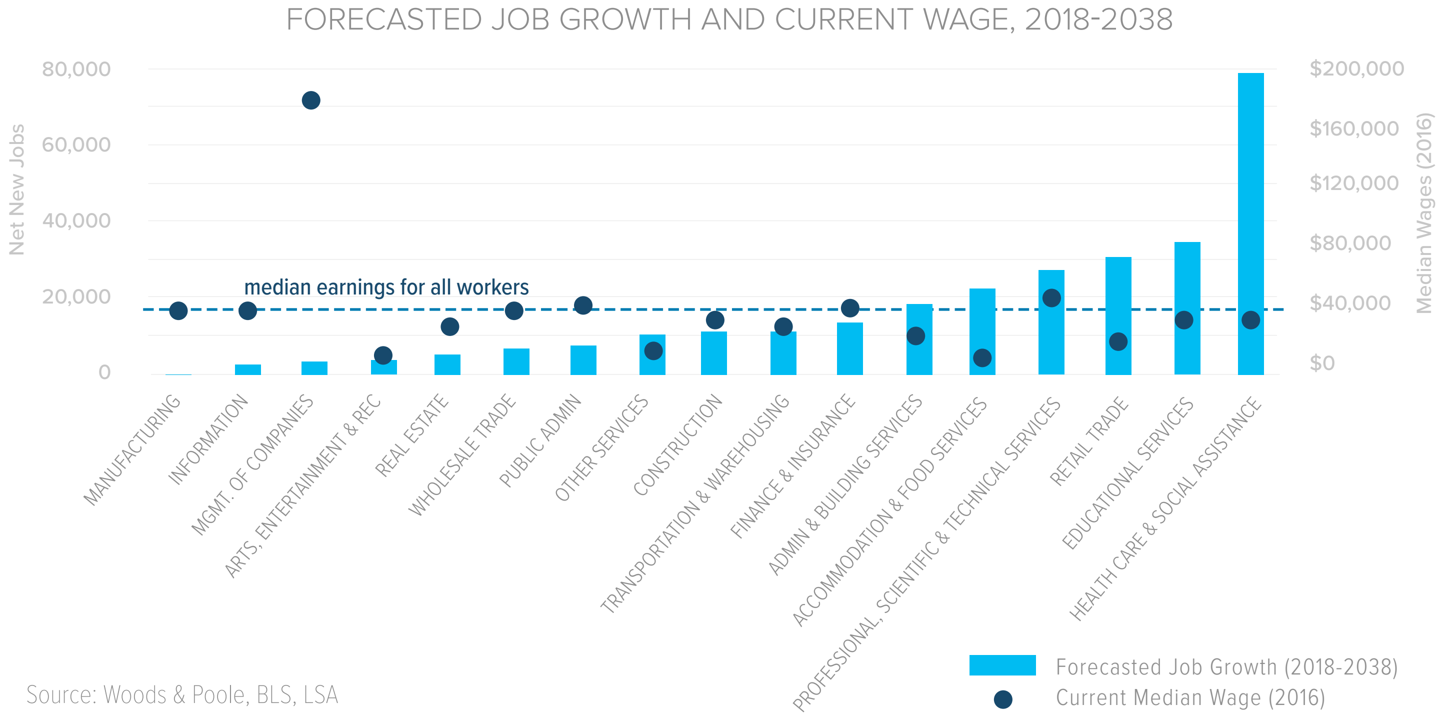
JOBS DRIVE HOUSING DEMAND, AND THE REGION'S JOBS ARE CHANGING.

There will be fast job growth in employment sectors with somewhat lower wages, reflecting a national trend. Growth in below median wage sectors has important implications for the types and prices of housing that will be needed to accommodate future workers.



Source: Woods & Poole, BLS, LSA

MULTIPLIER EFFECT: WHY ARE WE GROWING SO MANY BELOW MEDIAN JOBS?

Researcher and Economist Enrico Moretti describes the impacts of the multiplier effect in his book "The New Geography of Jobs." His research shows the for every new "good job" attracted to the economy there are both skilled and unskilled jobs created to support it. He uses the example of "high tech jobs" — for every high tech job created, five additional jobs are created outside the tech industry. Of those five jobs, two are likely to be professional jobs while the other three are nonprofessional occupations such as waiters and store clerks.

Source: The New Geography of Jobs, Enrico Moretti, 2012

THE TYPES OF JOBS ATTRACTED TO THE REGION AFFECTS HOUSEHOLD AGE, SIZE, AND MAKEUP.

Industry sectors with a younger workforce *(retail, accommodations and food services)* **are more likely to live alone or in smaller household sizes. This and other patterns used to drive the employment-driven model are based on current population trends.**

75% OF HOUSEHOLDS WERE MARRIED IN 1950.

TODAY, ONLY **50%** OF AMERICANS ARE MARRIED.

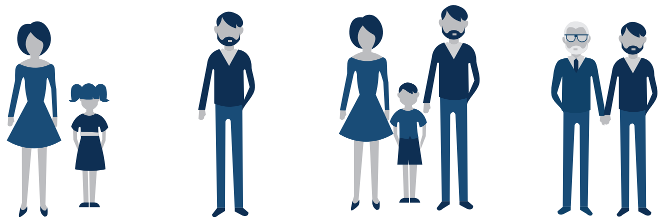
Younger generations are delaying marriage. Since 1960, the average age of first-time brides increased by over 6 years, from 20 to 26.5 in 2011. Additionally, more young people are forgoing marriage all together, up from just 9 percent in 1960 to 20 percent in 2012.

43% OF HOUSEHOLDS WERE MARRIED W/ KIDS IN 1950.

THAT NUMBER IS DOWN TO JUST **20% TODAY.**

Younger generations are waiting longer to start families. Over the last 45 years, the median age of first-time mothers has increased by 5 years. American families have gotten smaller since 1960, resulting in the need for smaller homes.

HOUSEHOLD OF THE PAST



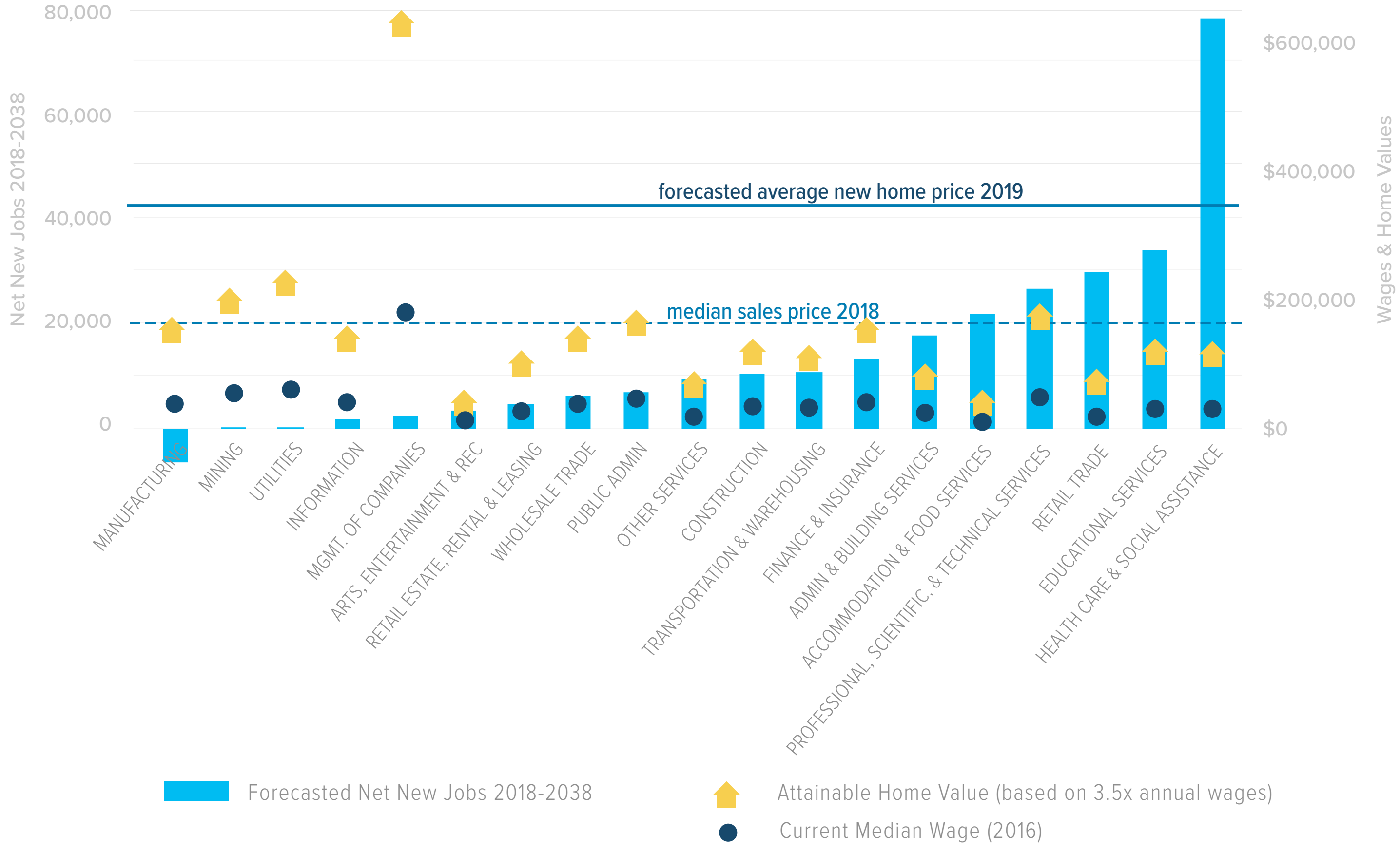
HOUSEHOLDS OF TODAY

Source: US Census; New York Times, “Late Marriage and its Consequences,” 2013; Time, “Why 25% of Millennials Will Never Get Married,” 2014; NPR, “Average Age of First-Time Moms Keeps Climbing in the US,” 2016; Bloomberg, “Millennials Still Want Kids, Just Not Right Now,” 2016

PRODUCTION IS NOT THE ONLY FACTOR TO MEETING HOUSING DEMAND.

Much of the region's housing are financially out of reach for much of our future workforce. The median wages for most industries does not support the purchase of the average new home in the region and only 3 support the purchase of an existing home at the median sales price as of 2018.

SHARE OF THE WORKFORCE, WAGES, AND ATTAINABLE HOUSING BY INDUSTRY



Source: Woods & Poole, BLS, LSA, MIBOR, BAGI
Median Sales Prices based on median sales price of all homes sold in the Region in 2017; Forecasted Average New Home Price based on a forecasted 12-month average sales price for new construction homes as of September 2018 for Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby counties.

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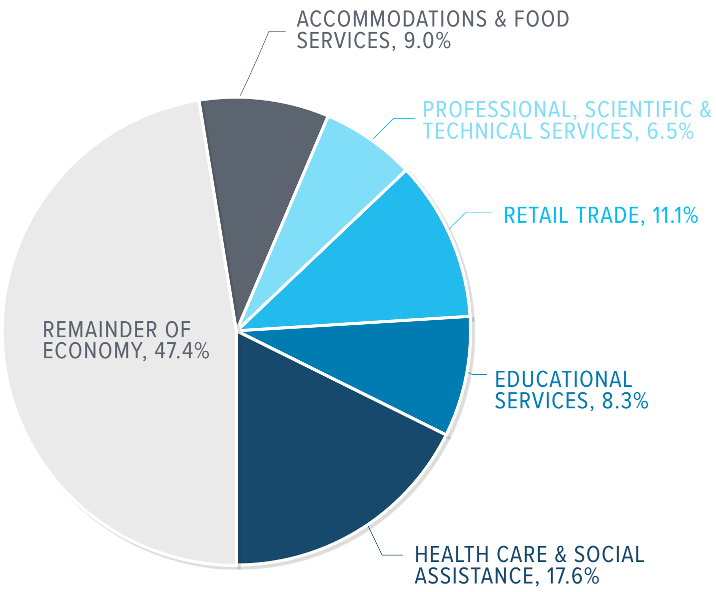
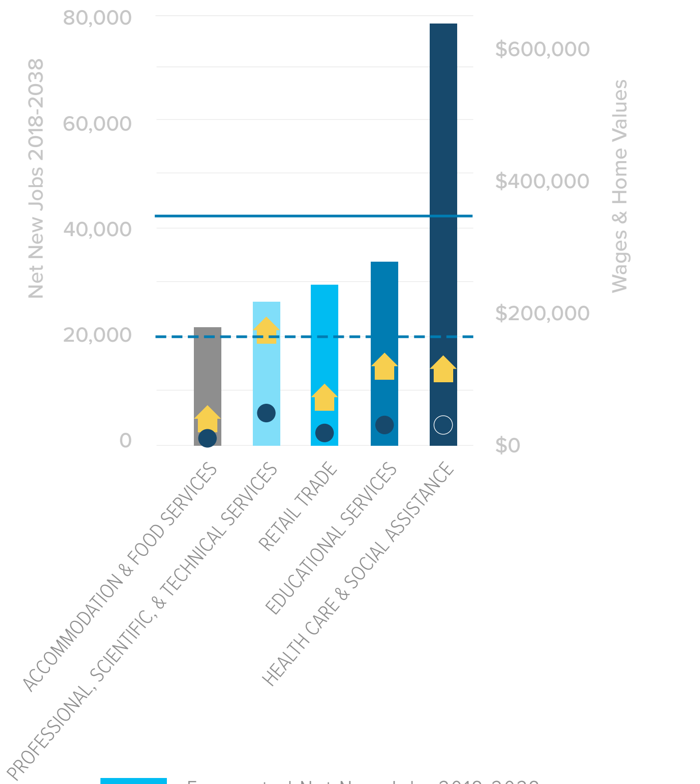
MUCH OF THE FUTURE ECONOMY OFFERS JOBS THAT MAKE HOMEOWNERSHIP DIFFICULT.

The industries shown here are projected to make up over fifty percent of the Region's economy by 2038. Of those industries, only one offers median wages that allow single-earner households to "afford" an existing home.

PERCENT OF THE ECONOMY, 2038





Source: Woods & Poole, BLS, LSA, MIBOR, BAGI
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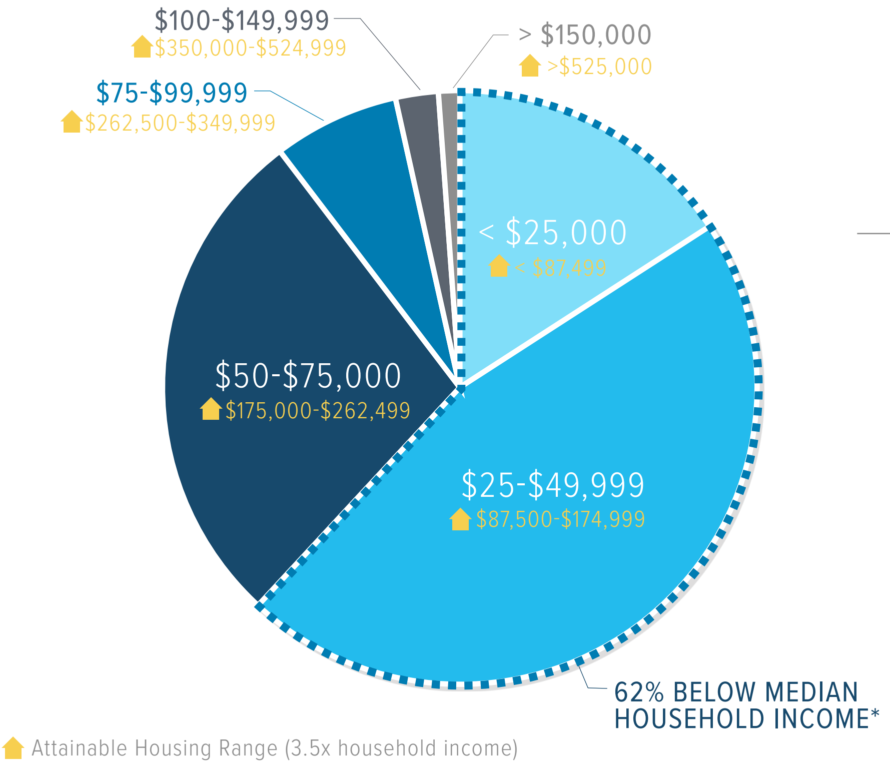
THE MAJORITY OF NEW HOUSEHOLDS WILL EARN BELOW THE AREA MEDIAN INCOME.

Much of the new job growth is likely to be below median wage opportunities. Even accounting for the prevalence of two-earner *(or more)* households, household incomes will still remain low resulting in the need for lower-cost housing choices across the Region.*

PROJECTED NEW HOUSEHOLD INCOMES



$58,000

2018 MEDIAN HOUSEHOLD INCOME

The median household income for the Indianapolis Region falls just short of the $61,372 National median household income. However, over the several decades, median household incomes have remained relatively stagnant while housing cost have skyrocketed. In 1975, the average price of a new home was just over $42,000 compared to a national household income of approximately $12,000. By 2015, incomes had rose by 360% while new home prices rose by nearly 750% to hit $360,000. Housing cost have continued to rise since that time while incomes have remained somewhat flat.

*Dotted outline represents only the portion of the households earning below the Median Household Income that earn $49,999 or less. Additional household will fall into this category that earn between $50,000 and $58,000.
Source: LSA, historical US Census data, ESRI 2018 Estimates

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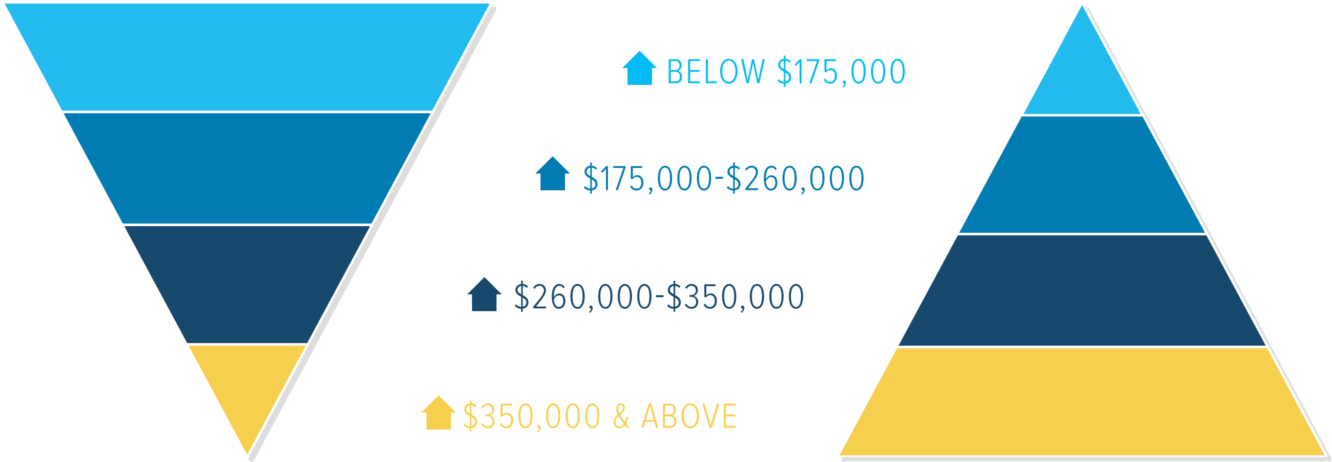
THERE IS AN INVERSE RELATIONSHIP BETWEEN NEW CONSTRUCTION PRICES AND THE INCOMES NEEDED TO SUPPORT THEM.

Homes are being built at the high end, while below median wage households are increasing.

RELATIONSHIP BETWEEN INCOMES *(attainable home values)* & NEW HOME PRICES



2018
NEW HOUSEOLDS' INCOMES*

2018
NEW CONSTRUCTION HOME PRICES**

*New Households' Incomes from forecasted employment-driven demand used to generate an "attainable home value" defined as 3.5 times a household's income. Data represents the 12-County Indianapolis Region of Boone, Brown, Decatur, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Montgomery, Morgan, and Shelby counties

**New Construction Home Prices based on data as of August 2018. Data represents the 9-County (BAGI) Indianapolis Region of Boone, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby counties.

Source: LSA, historical US Census data, BAGI, MarketGraphics Research Group, Inc. 2018, Greenstreet

Note: Data sources do not align exactly by the housing values (both attainable and new home prices) graphic is an illustrative representation of the data.

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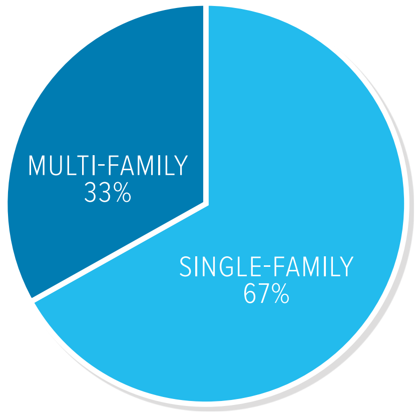
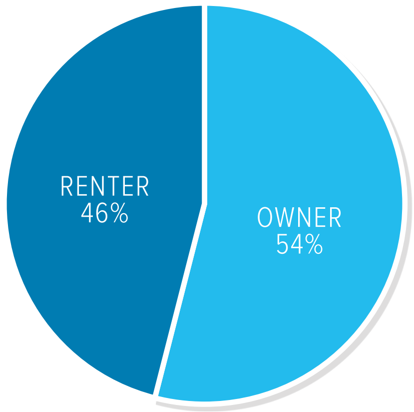
A VARIETY OF HOUSING CHOICES ARE NEEDED.

Product type and options for owner and renters are equally as important as price. In the future, households are more likely to be renters than today's current household mix. But they may be different from today's renters who predominately live in multi-family units, more single-family rentals will be needed to support families who choose to or need to rent.

PROJECTED FUTURE HOUSING NEEDS FOR THE REGION



Future New Housing
PRODUCT TYPE



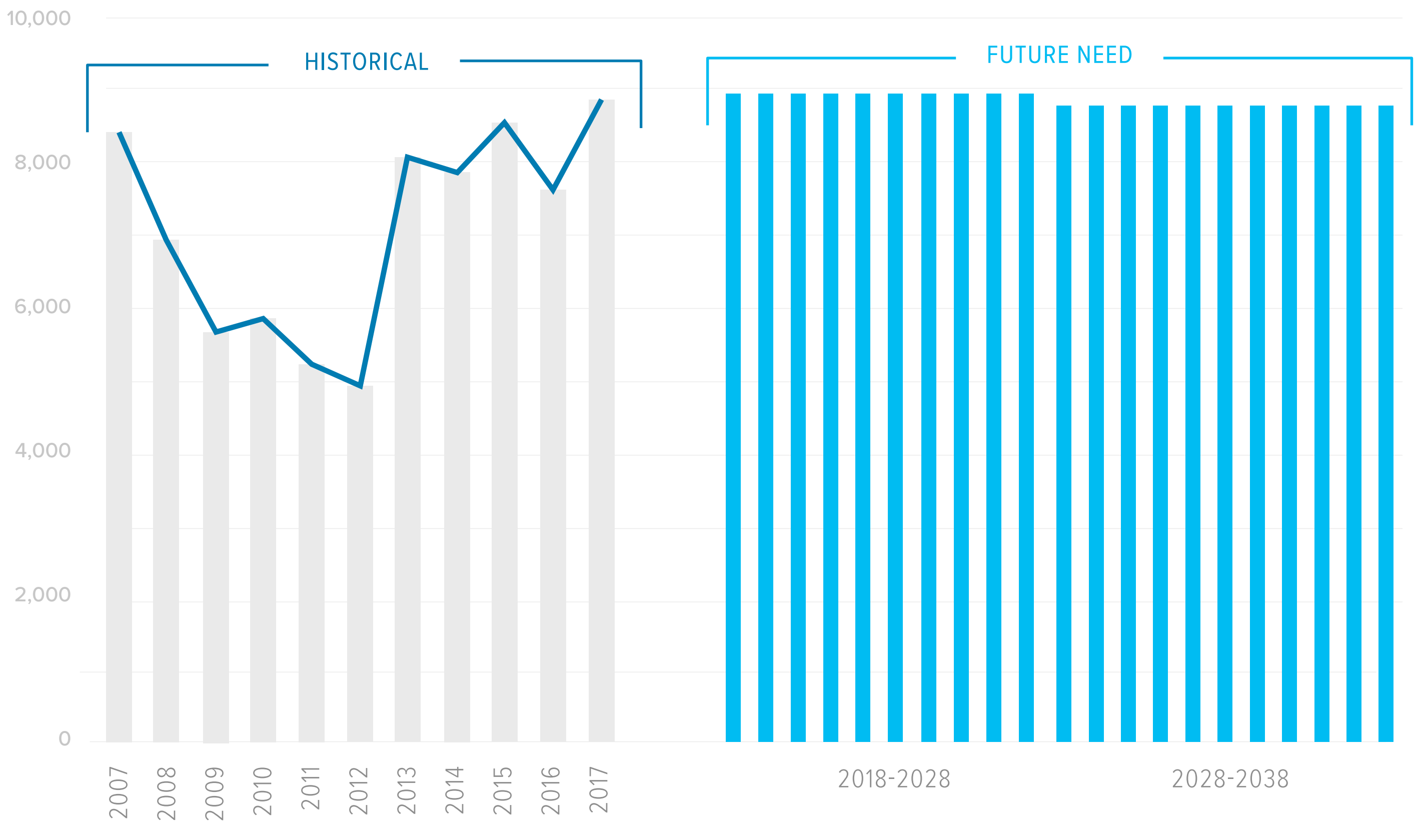
Future New Housing
OWNER/RENTER SPLIT

Multi-Family includes apartments, duplexes, and townhomes along with all other attached product types
Source: LSA, historical US Census data, ESRI 2018 Estimates

Q: ARE WE BUILDING ENOUGH HOUSING TO KEEP UP WITH DEMAND?

A: The simple answer is no. Historical building trends suggest that the region needs to build, on average, 1,750 additional units each year over the next 20 years to meet forecasted demand. That represents a 35,000 unit gap between what is likely to be built and what needs to be built over that time period.

INDIANAPOLIS REGION ANNUAL HOUSING PRODUCTION, PAST AND FUTURE



Source: US Census Building Permits Survey 2027-2017; Lisa Sturtevant & Associates

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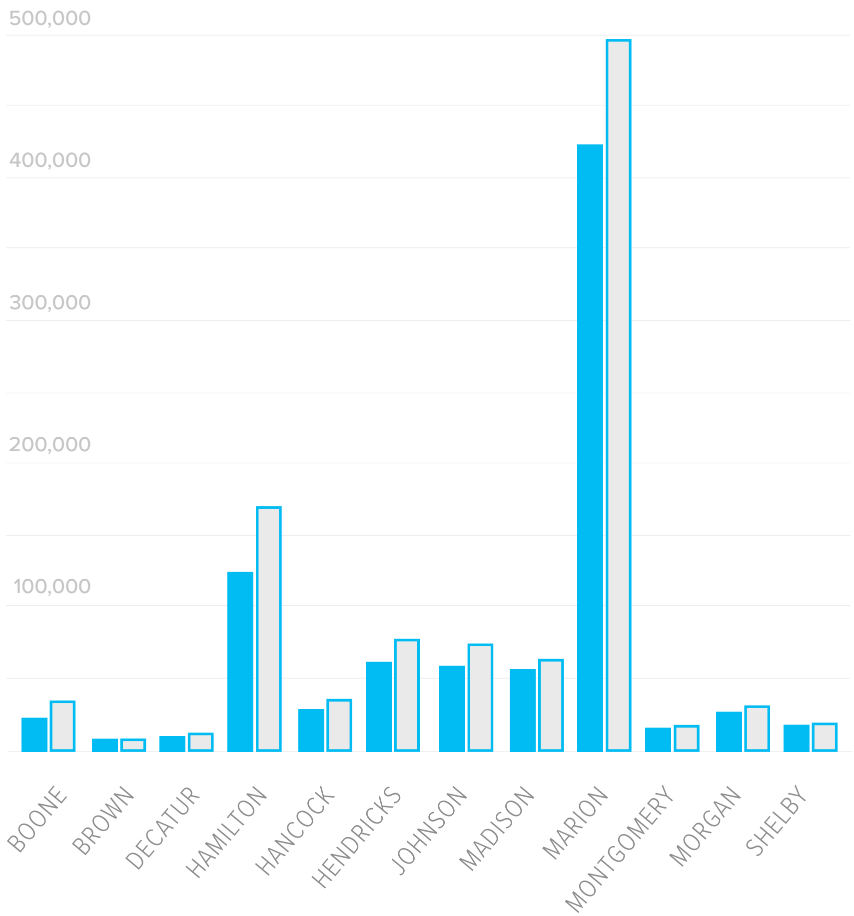
HOUSING DEMAND WILL VARY ACROSS THE REGION.

Due to variations in the amount and types of jobs attracted to each county, the need for housing differs from county to county. Overall, the Region* needs to increase the number of housing units by 21 percent over the next 20-years to meet forecasted demand generated by new employment.

CHANGE IN HOUSING UNITS 2018-2038



SOME COUNTIES WILL NEED TO MAINTAIN OR INCREASE PRODUCTION, WHILE OTHERS WILL ONLY NEED TO RESPOND TO MODEST GROWTH.

Region	180,257*
Boone	9,024
Brown	605
Decatur	757
Hamilton	45,213
Hancock	7,196
Hendricks	16,989
Johnson	13,795
Madison	5,718
Marion	73,662
Montgomery	1,322
Morgan	3,919
Shelby	2,059

Current Housing Supply
Future Housing Need (2018-2038)
(based on employment-driven demand needs)

*New housing units needed to support employment-driven demand over the next 20-years (2018-2038)
Source: US Census 2017 Population Estimates; Lisa Sturtevant & Associates

UNDERPRODUCTION OF HOUSING AFFECTS THE ENTIRE ECONOMY.

How the Region responds to increasing the supply of housing will affect the outcomes. Just building housing isn't enough. It needs to respond to the market and to the future workforce needs.

- IN ORDER TO SUPPORT JOB GROWTH IN THE REGION*, IT IS ESSENTIAL TO HAVE SUFFICIENT HOUSING — IN THE RIGHT LOCATIONS, OF THE RIGHT TYPES, AND AT THE RIGHT PRICES AND RENTS.
- CHARACTERISTICS OF BOTH JOBS AND WORKERS IN THE REGION* ARE CHANGING.
- IN MOST OF THE REGION,* THERE IS A NEED TO INCREASE THE SUPPLY OF MULTI-FAMILY HOUSING, INCLUDING TOWNHOMES, APARTMENTS, AND CONDOMINIUMS.
- PRODUCING UNITS ATTAINABLE TO BELOW MEDIAN WORKERS MAY REQUIRE CREATIVE FINANCIAL SOLUTIONS AND PARTNERSHIPS WITH LOCAL DECISION-MAKERS.

Over the next 20 years creating the right supply is critical.

NEW HOUSING MUST RESPOND TO THE NEEDS OF THE CHANGING WORKFORCE.

COMPACT, WALKABLE DEVELOPMENT DOES THAT AND

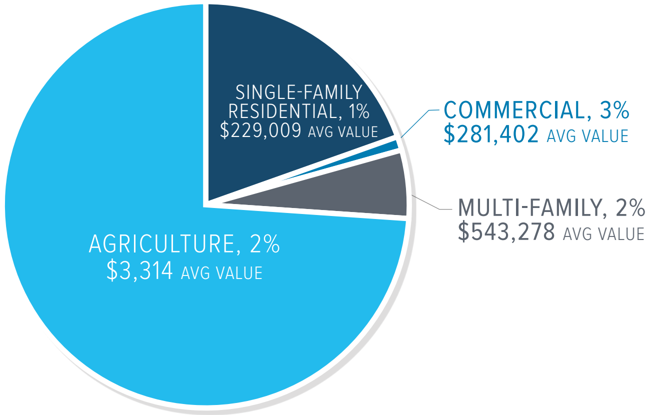
PROVIDES COST EFFECTIVE SERVICE DELIVERY

GENERATES MORE TAX REVENUE PER ACRE

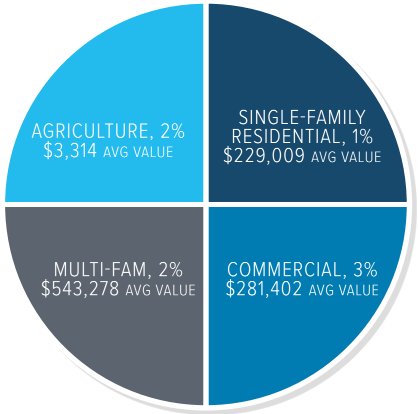
RESPONDS TO AN UNDERSERVED PORTION OF THE MARKET

LOCAL LAND USE AFFECTS LOCAL TAX BASE & REVENUES.

Mixed land uses help to stabilize municipal revenue, especially with Indiana's property tax structure. By creating a more diverse, balanced mix of land uses, municipalities can expand and diversify their tax base. A more balanced mix of land uses generates three times the tax revenue compared to the current mix of land uses.



CURRENT MIX



BALANCED MIX

3X

MORE TAX REVENUE

Based on a hypothetical 100 acres of land, two different land use scenarios were developed to illustrate the effects of land use on future tax revenue. Both scenarios assume 4 housing units per acre at a value of $229,009; a multi-family value of $543,278 per acre; a commercial value of $281,402 per acre; and agricultural value of $3,314 per acre. Tax rates of 1 percent (single-family); 2 percent (multi-family); 3 percent (commercial); and 2 percent (agriculture) were used in the analysis.

Source: Indianapolis Metropolitan Planning Organization, Greenstreet Ltd. analysis

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LAND IS A FINITE RESOURCE THAT WE MUST MANAGE RESPONSIBLY.

As an example, with continued low-density development, Community Z could be completely built out in just 25 years— about a single generation. But with a more compact, higher-density development, the remaining land could last five times longer, preserving it for critical agricultural uses.

2,697 ACRES
of undeveloped land in Community Z

LOW DENSITY SUBURBAN DEVELOPMENT
(assumes 4 dwelling units per acre)

= **25** YEARS OF GROWTH

COMPACT, WALKABLE DEVELOPMENT
(assumes 20 dwelling units per acre)

= **123** YEARS OF GROWTH

Based on existing undeveloped land in Community Z (2,697 acres), two different land use scenarios were developed to illustrate the effects of density on long-term growth management. The low density suburban scenario assumes 4 dwelling units per acre while the compact efficient scenario assumes 20 dwelling units an acre to estimate future build out of the undeveloped land. An annual construction rate of 444 units per year was used in both scenarios.

Q: HOW DOES THE REGION CREATE A HEALTHY HOUSING MARKET?

A: A single strategy won't suffice. Each county and municipality will need different amounts of housing, different types of housing, and housing at different price points to support their own local needs while still working towards a balance regional housing market.

A HEALTHY HOUSING MARKET MUST ADDRESS SUPPLY AND DEMAND

DEMAND

Support its current and future workforce *(and residents)* by providing a diversity of housing types and price points that allow households to live in their desired community.

SUPPLY

Ensure the future sustainability of municipal budgets by developing efficient and market-responsive housing in addition to employment options, educational opportunities, retail, and neighborhood amenities.

THE REGION MUST INCREASE HOUSING PRODUCTION TO SUPPORT & SUSTAIN ECONOMIC GROWTH.

BUT NEW HOUSING MUST BE IN THE RIGHT LOCATIONS, OF THE RIGHT TYPES, AND AT THE RIGHT PRICES AND RENTS TO SUPPORT BOTH THE WORKFORCE AND OUR LOCAL MUNICIPALITIES.