NKADD Housing Data Analysis

September 13, 2023

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Executive summary

Housing needs assessment

The NKADD region has a **5-year housing production need of 6,650 units**, which equates to 1,300 units per year.

About half of the new housing demand (3,260 units) is low-income residents earning up to 60% of the area median household income of $103,600.

Current housing in Boone, Kenton and Campbell is positioned for middle to upper-middle professional incomes, but affordability for warehouse, service, and low wage healthcare workers is currently lacking and will be exacerbated by incoming residents. New tract housing and older rental stock in suburban/rural locations are absorbing lower to middle income households, but the limited availability of these units relative to demand pushes prices out of the range of many.

Smaller one- and two-bedroom units account for 4,220 units, more than three-fifths of the overall demand. The change in unit size reflects a shift in demographics and will require a shift in housing development practice away from the three- and four-bedroom single family houses that have been the primary mode of production for the past 20 years.

Economic development

NKADD counties operate as both employment centers and bedroom communities, including for employees commuting into Cincinnati. The northern counties are well positioned to absorb higher income household growth but struggle to provide affordable housing for low wage service sector workers who make up a sizeable portion of the employment base.

Boone County contains the region's largest logistics cluster. This cluster should see continued growth if there is available labor supply and affordable housing that ensures wage competitiveness.

Priority housing strategies

This analysis recommends a series of top priority strategies to unlock the development of housing that match the expected size, tenure, and affordability of forecasted households and employment.

Financing

- Explore expanding the regional HUD HOME Funding Consortium to not leave federal funding on the table
- Use Low Income Housing Tax Credits (LIHTC) for qualified Census tracts for low-income housing (<60% AMI) housing
- Use property tax abatement or exemptions to incentivize affordable housing
- Dedicate publicly owned land for affordable housing
- Create a housing bond fund for affordable housing, like the Louisville Metro Affordable Housing Trust Fund
- Use the State's Tax Increment Financing (TIF) for Mixed-Use Redevelopment program for a signature project

Regulations

- Allow Accessory Dwelling Units (ADUs) zoning by right
- Use Inclusionary Zoning and development bonuses to incentivize affordable housing
- Reduce the regulatory burden on development
- Update building codes for missing middle housing production
- Recommend a Housing Element in Comprehensive Plan updates

Key takeaways for the northern and southern counties

Boone, Kenton, Campbell

- **Workforce job creation is out-pacing workforce housing:** The logistics industry is central to job growth in the region, generating demand for high-growth but lower wage “workforce” jobs. Today, there are 2.68 workforce jobs for each housing unit they could afford.
- **Monoculture of single-family homes is not aligned with household income and size:** The supply of single-family, 3-4 bedroom homes outpaces the demand. Targeting ‘missing middle’ homes would better account for the diversity of incomes and smaller household sizes.
- **‘Missing middle’ houses and affordability strategies are required to continue economic growth:** Economic growth creates a strong labor demand. A lack of housing affordable for jobs being created will make it harder and more expensive for employers to find and recruit labor at prevailing market wages.

Grant, Gallatin, Carroll, Pendleton, Owen

- **Job density is constant:** Job growth is concentrated in northern counties industry clusters while the southern counties maintain a steady baseline of jobs. Job creation generates demand for housing. The majority of housing demand is being met closer to the jobs.
- **Land in closer proximity to jobs is not fully saturated:** Suburban development is occurring in the northernmost portions of the southern counties at the limit for commutes to jobs. Available land in the northern counties is being prioritized by market developers.
- **Exceptions exist:** Carrollton is generating manufacturing jobs, but workforce and middle-income housing is lacking. Development of workforce housing near Carrollton seems like a market possibility and could increase available labor supply.

Introduction

This report compiles analysis of housing and household characteristics along with growth projections and market preference assessments to identify gaps in the current housing supply and understand what additional housing will be needed to meet expected new demand over the coming years. This analysis was informed by a detailed data analysis and interviews with relevant focus groups.

With this comprehensive picture of the region's housing and employment landscape, a series of housing production strategies are introduced.

The document summarizes housing gaps and production need at the individual county level as well as for the region overall. Each geography is assessed using the following sequence of analyses:

- **Current housing supply**, summarizing the existing housing stock in terms of monthly cost, bedroom count, and tenure. This inventory is based on a complete modeling of the region's housing at the unit-by-unit level of detail, using parcel data, real-time web scraping, and other public and licensed sources.
- **Current housing preferences**, establishing the choices residents would likely make if selecting housing based on their current income, household size, and tenure.
- **Current market alignment**, gauging the degree of alignment between preferences and supply. Areas of misalignment indicate households that, for example, pay more than they can comfortably afford; have more bedrooms than they need; or are otherwise not living in a unit that best reflects their preferences and/or ability to pay.
- **Projected household growth**, estimating future change in house counts by income.
- **Production need forecast**, translating household growth into new housing production need quantities.
- **Five-year production need**, parsing the housing production forecast into unit counts by cost, bedroom count, and tenure to inform the number and types of housing communities should plan for to accommodate expected new demand over the next five years.
- **Strategies to achieve the desired housing production**, including regulatory, financing, and regional collaboration.

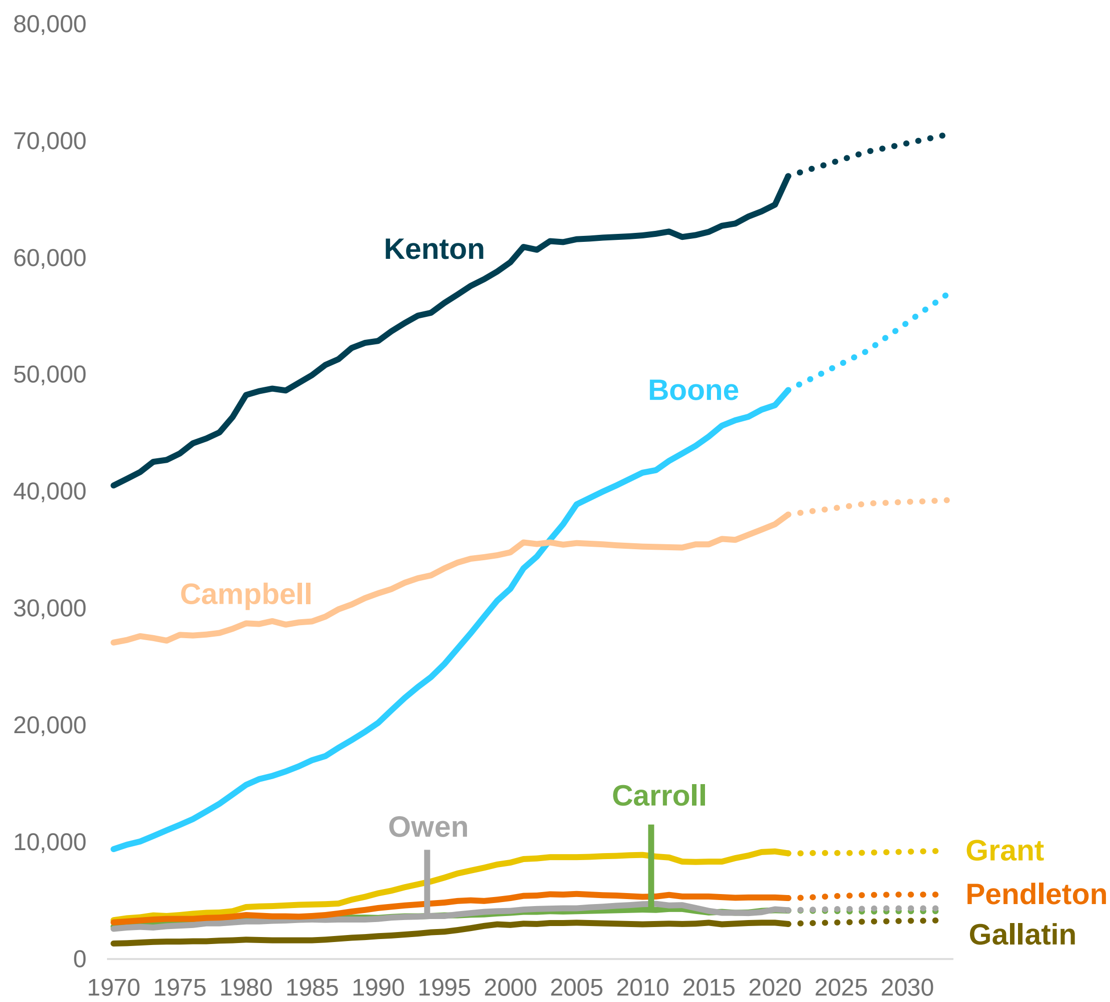
The regional growth forecast is strong

Boone and Kenton are set to continue growing rapidly

NKADD is a vibrant and growing area that offers a unique blend of urban and rural living. This region is home to a diverse population that is growing rapidly, with a range of housing options to meet the needs of residents. The region offers a wide range of housing options, from historic homes to modern apartments.

Total household history and forecast (1970-2033)

Source: Woods & Poole

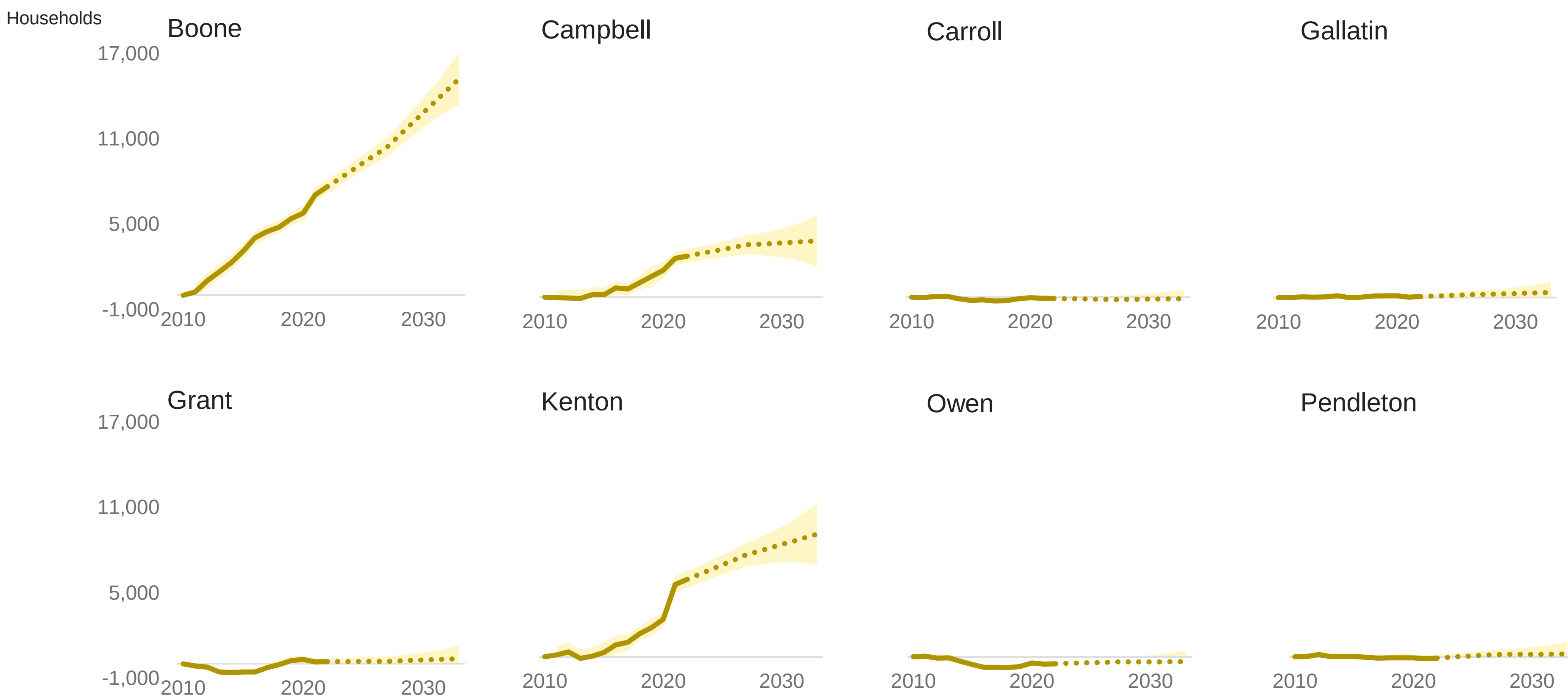


Change since 2010 and future cone of possibility

Looking ahead 10 years, each county has a "cone of possibility" that is derived from the historical data margin of error and the increasing amount of potential fluctuation in the future.

Total household change since 2010

Source: ACS, ESRI

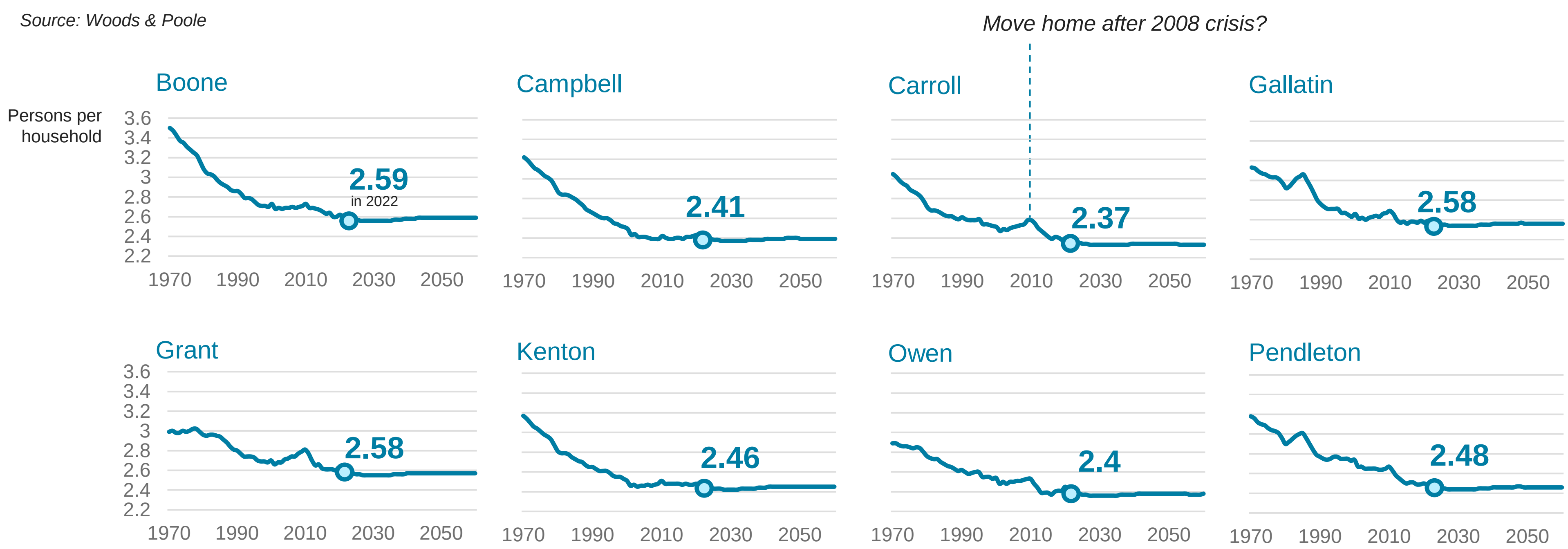


Average household size has dropped but is steadying across all counties

All counties are converging on smaller households

Household size

Source: Woods & Poole

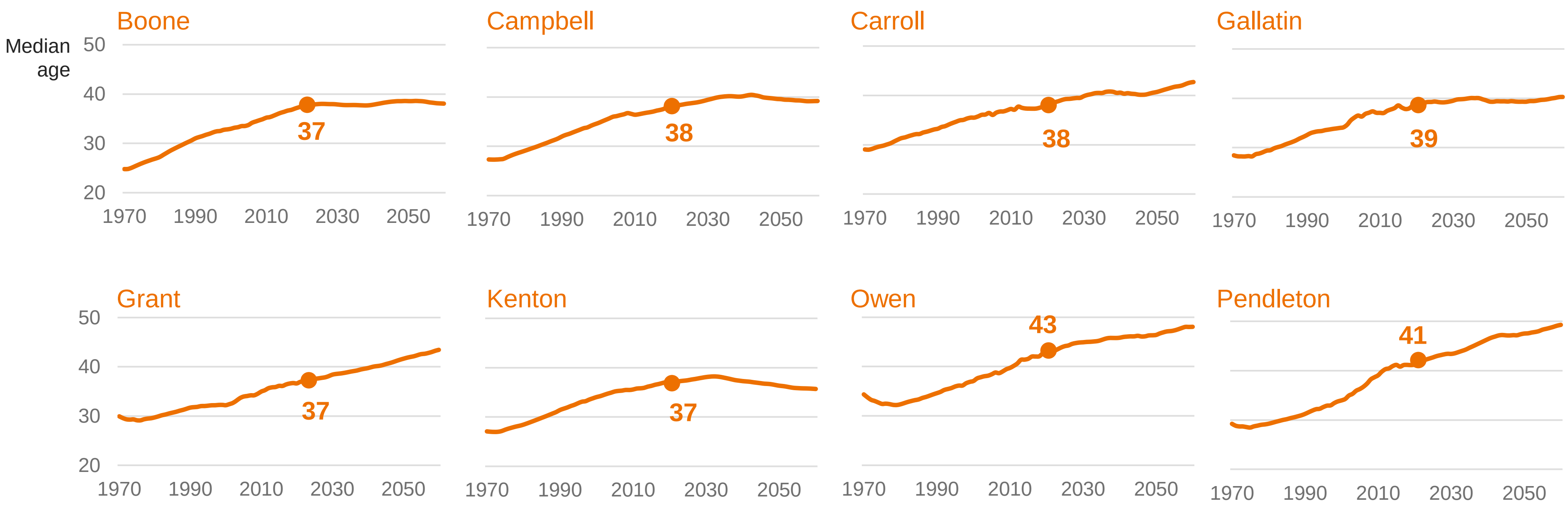


Median age has risen in all counties but is projected to level out or dip in some counties over the next 40 years

Rural counties are getting older

Median age

Source: Woods & Poole



NKADD public school enrollment dropped between 2015 and (January) 2020, while the number of households in NKADD grew by 7,800

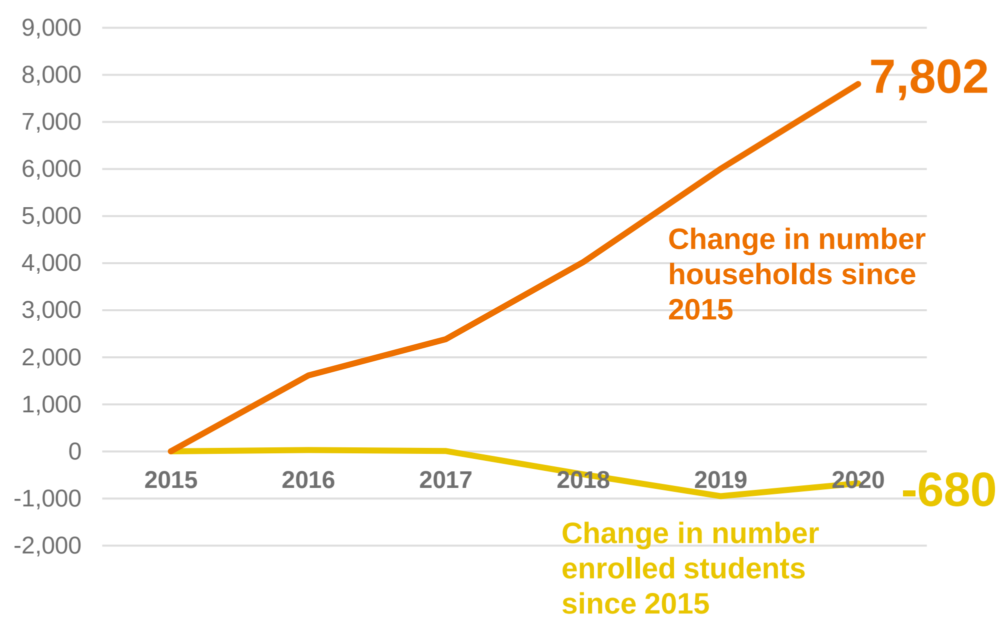
The growth in overall households since 2015 has not led to a growth in students enrolled in public schools. This is attributable to the **changing demographics of the region and country, where there are fewer family households and more households without children** (singles, couples, and elderly households).

As shown here, the NKADD region has added several thousand new households since 2015, but the net change in public school enrollment has been flat. With an increase in households far outpacing recent increases in enrollment, the number of public enrolled students per household dropped from 0.28 in 2015 to 0.24 in 2023.

NKADD saw an increase in enrollment between 2010 and 2020 of nearly 1,491 students. But with a total increase in households of 10,174 over that same time, the change in enrollment lags the change in households.

Change in total households and public enrollment, NKADD total, 2015-2020

Source: ACS, Kentucky Department of Education

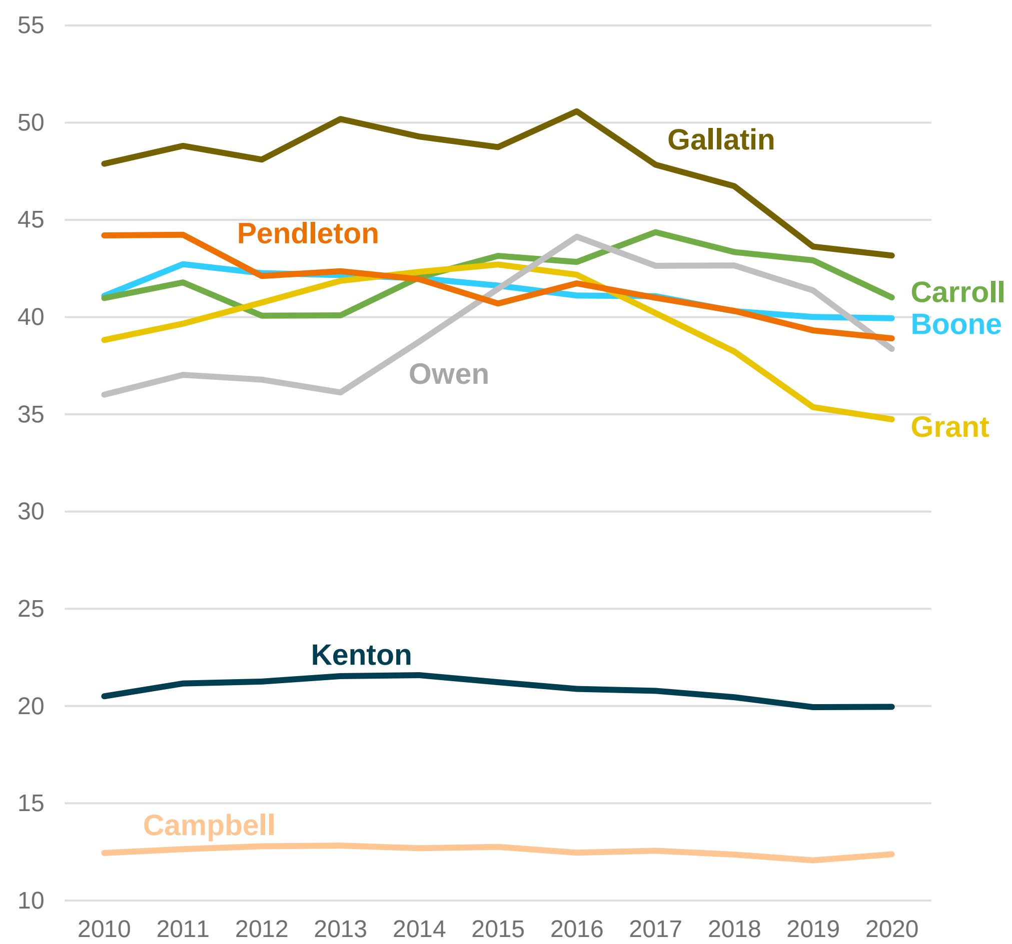


The number of enrolled students per household has dropped since 2010 in most NKADD counties.

This graph shows the number enrolled students per 100 households. Though the Boone and Campbell school districts grew slightly, all other NKADD school districts saw a drop in enrollment between January 2015 and January 2020 – for an NKADD total change from 47,014 to 46,334 enrolled students.

Number of enrolled students per 100 households

Source: ACS, Kentucky Department of Education



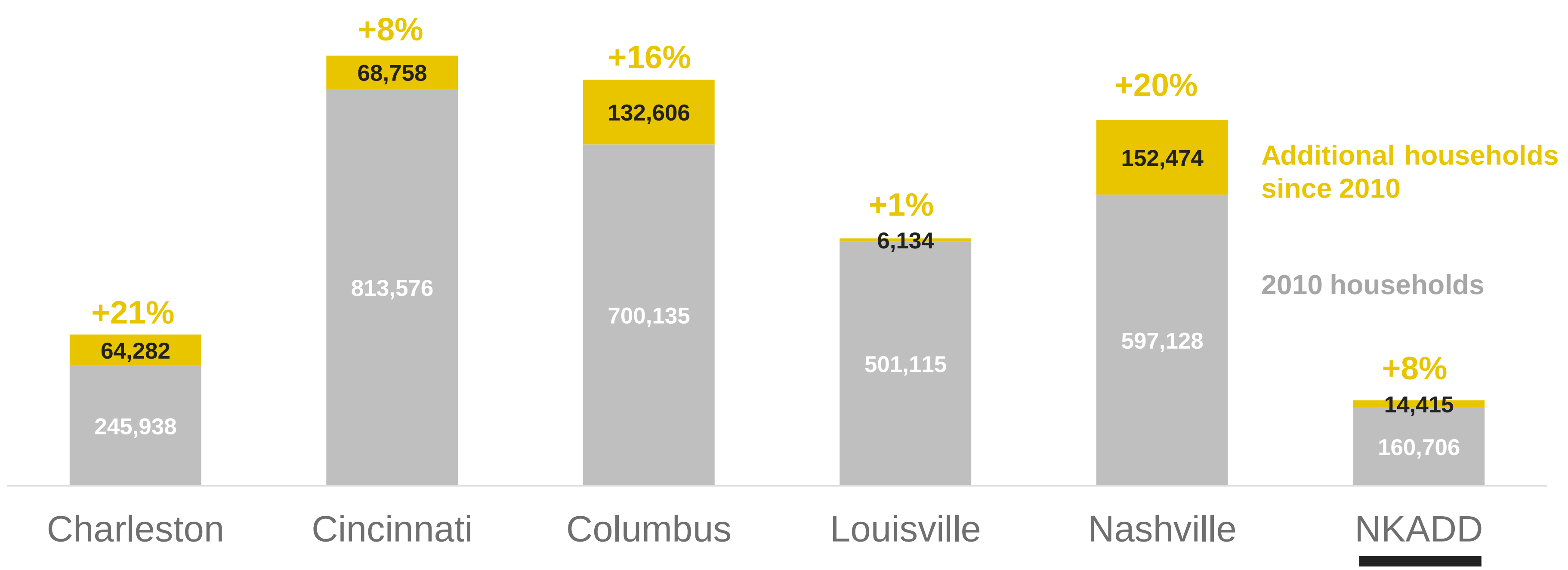
COMPARING THE REGION

NKADD trails behind Charleston, Columbus, and Nashville in % growth since 2010

NKADD's growth of 8% is similar to that of the wider Cincinnati region.

Increase in number of households, 2010-2021

Source: ACS

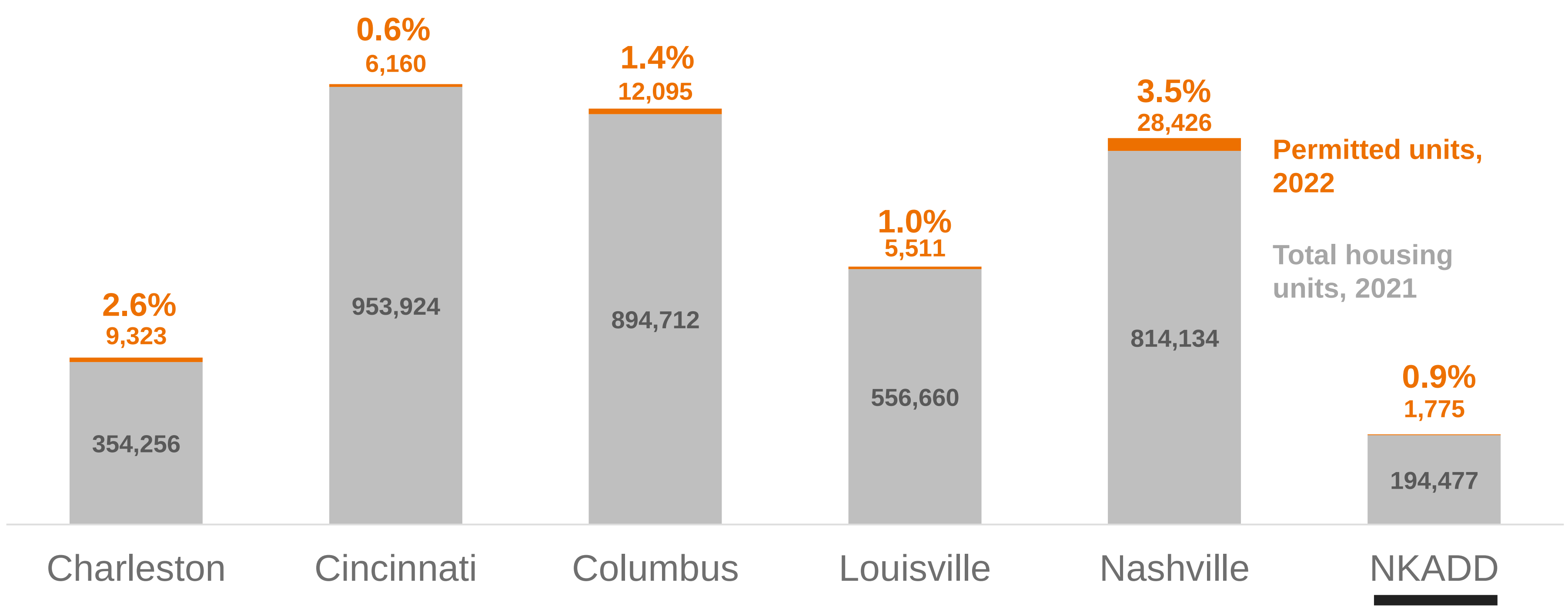


COMPARING THE REGION

NKADD permitted 1,775 permits in 2022, equal to less than 1% of its total 2021 housing stock – or 1 unit per 99 households.

2021 housing units and 2022 permitted units

Source: ACS, HUD

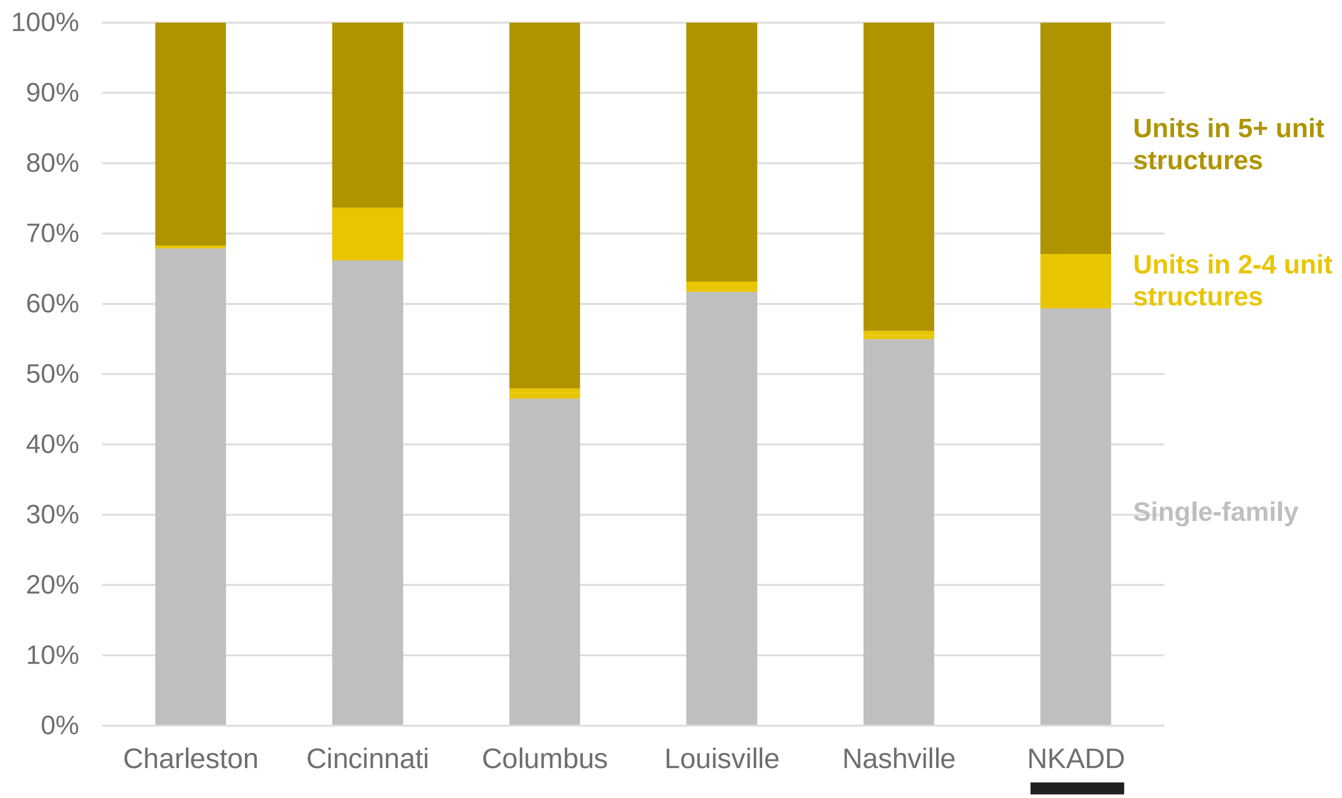


COMPARING THE REGION

NKADD and Cincinnati permitted a higher proportion of small-scale multi-family.

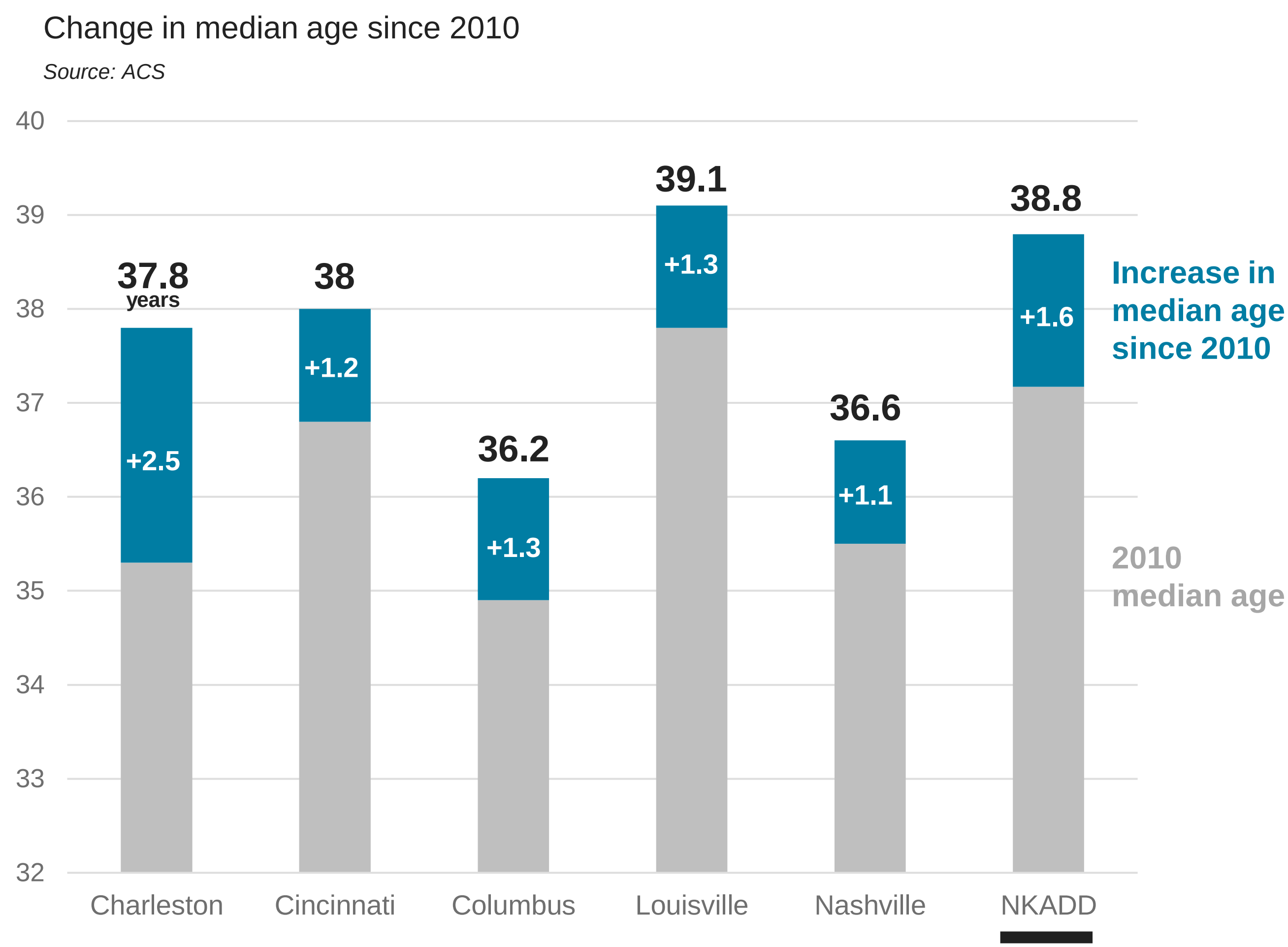
Share of all permitted housing in 2022, by number of units

Source: HUD



COMPARING THE REGION

NKADD's population are relatively old and getting older at a faster pace than most comparative metro areas



COMPARING THE REGION

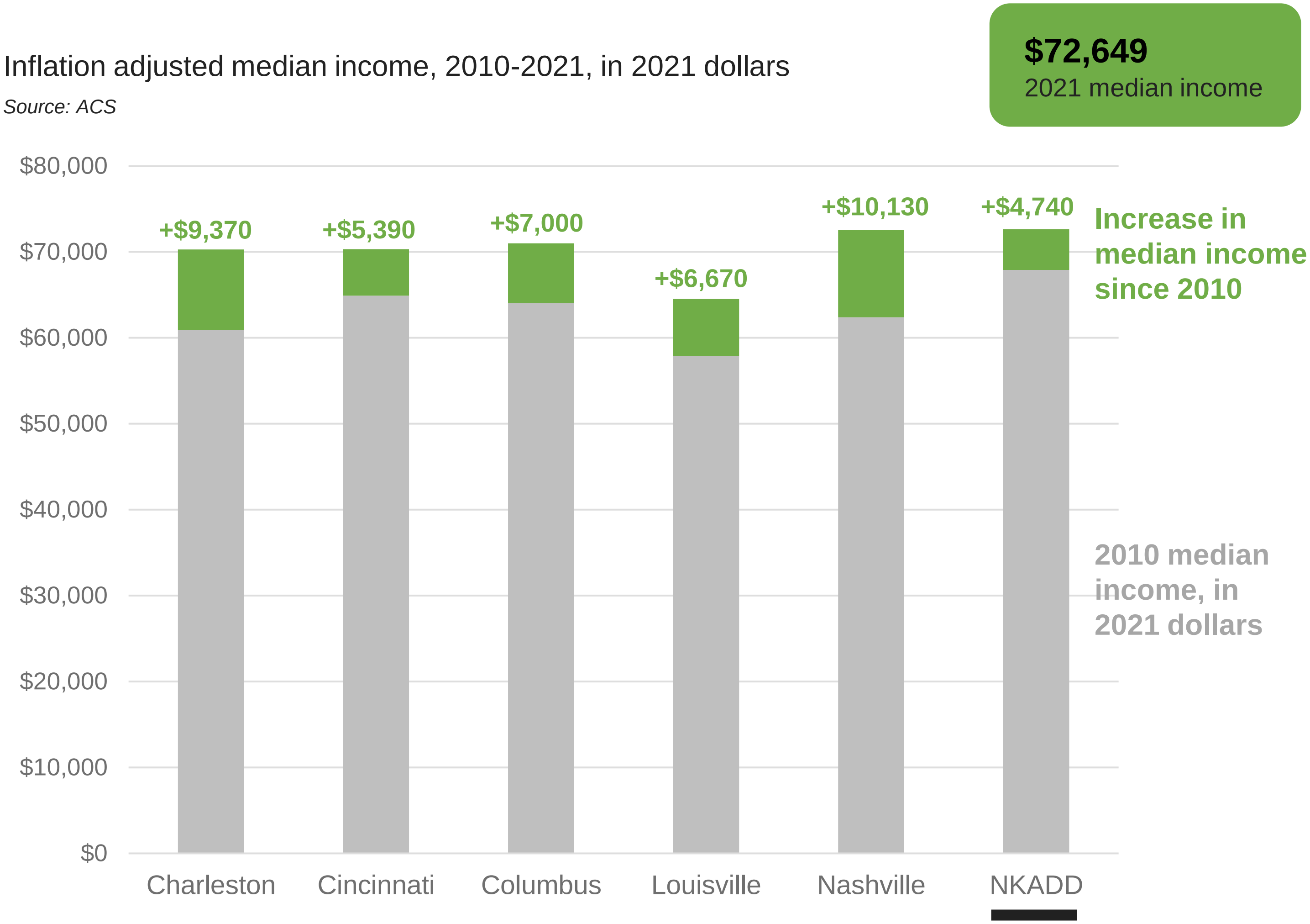
NKADD's median income was higher than the other regions' in 2010 but has grown the least since.

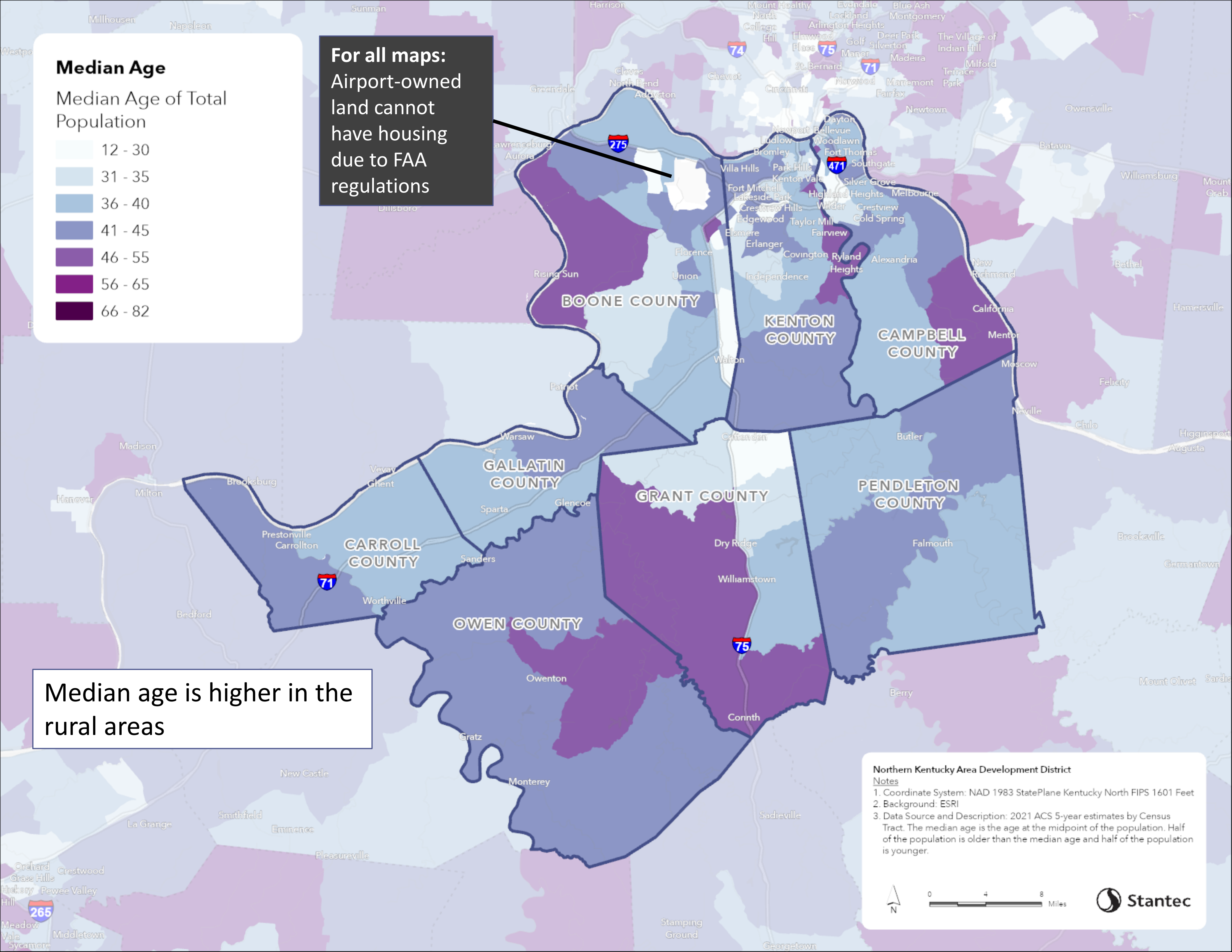
Despite its slower growth, it still sits on par or above its peer regions.

2021 median income is for all households, an ACS 5-Year estimate

Inflation adjusted median income, 2010-2021, in 2021 dollars

Source: ACS

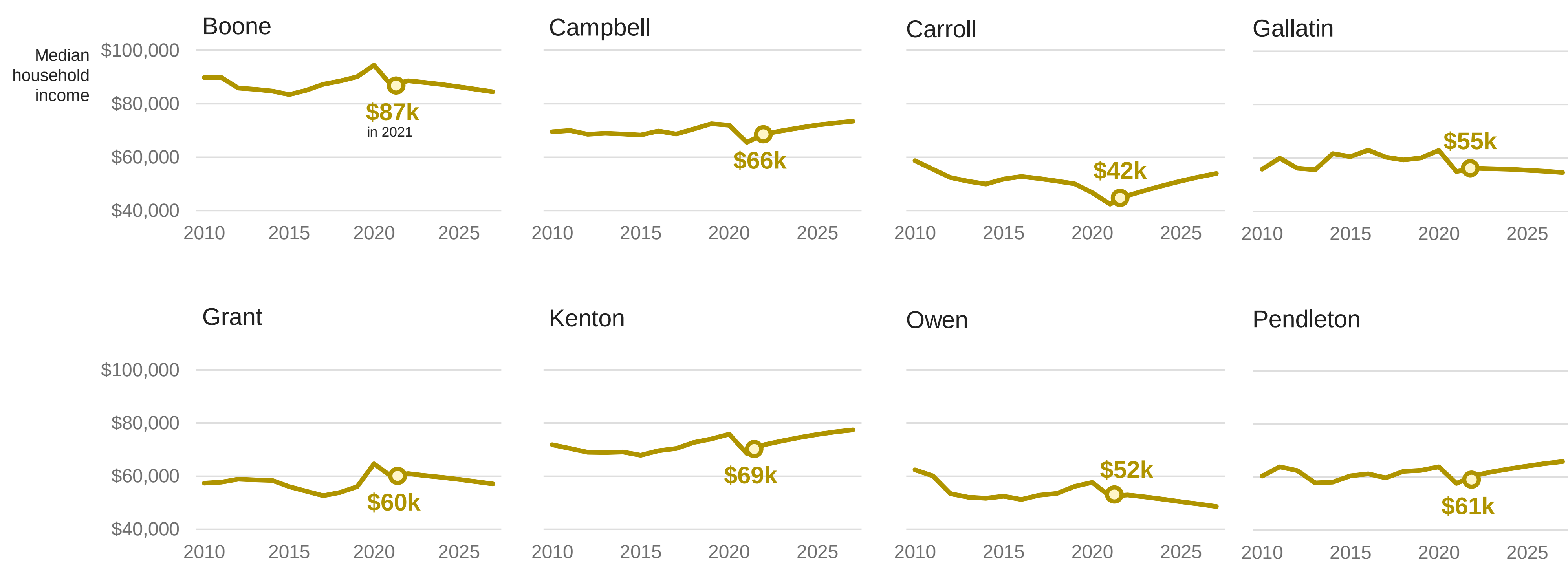



Median Age
Median Age of Total Population
12 - 30
31 - 35
36 - 40
41 - 45
46 - 55
56 - 65
66 - 82
For all maps: Airport-owned land cannot have housing due to FAA regulations
Median age is higher in the rural areas
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. The median age is the age at the midpoint of the population. Half of the population is older than the median age and half of the population is younger.
0 4 8 Miles
Stantec

Median household income is projected to see an increase in Campbell, Carroll, Kenton, and Pendleton Counties.

Median household income

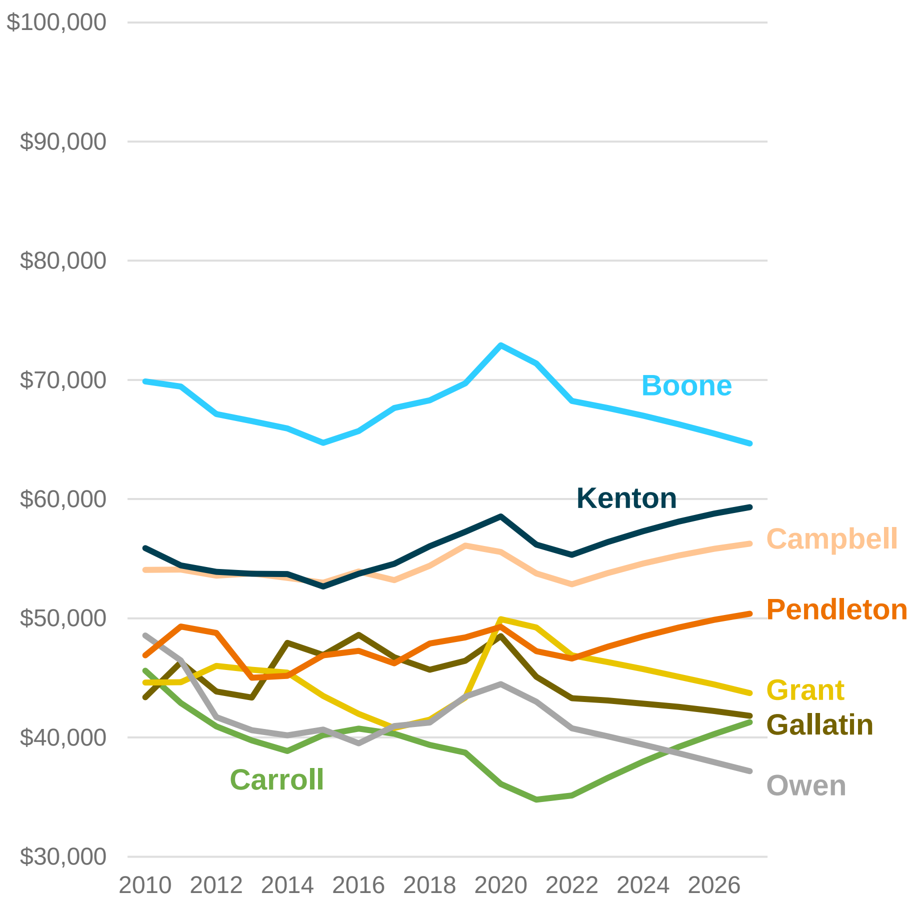
Source: ACS, ESRI, in constant 2022 dollars



Median income when adjusted for inflation has remained relatively flat since 2010

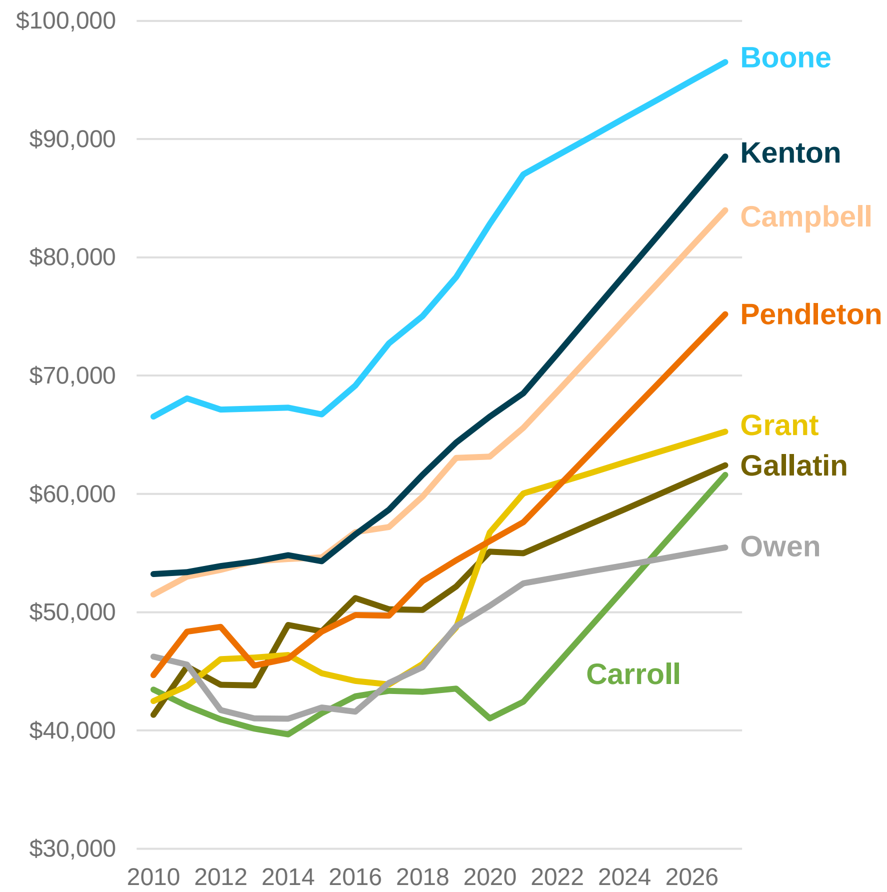
Median income, 2012 dollars

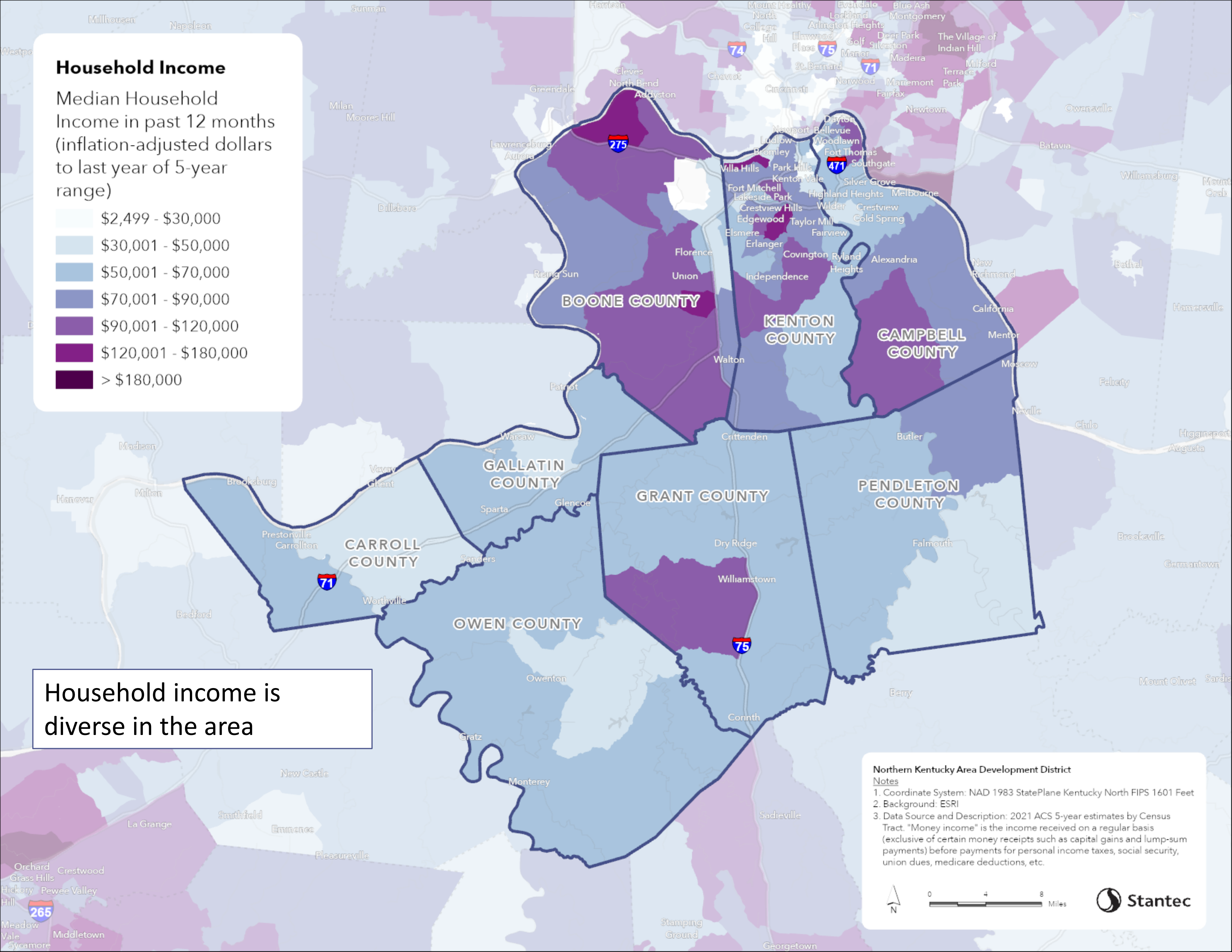
Source: ACS, ESRI



Median income, current year dollars

Source: ACS, ESRI





Household Income
Median Household Income in past 12 months (inflation-adjusted dollars to last year of 5-year range)
$2,499 - $30,000
$30,001 - $50,000
$50,001 - $70,000
$70,001 - $90,000
$90,001 - $120,000
$120,001 - $180,000
> $180,000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Household income is diverse in the area
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. "Money income" is the income received on a regular basis (exclusive of certain money receipts such as capital gains and lump-sum payments) before payments for personal income taxes, social security, union dues, medicare deductions, etc.
N
0 4 8 Miles
Stantec

Focus group discussion outcomes (I/II)

Critical services

- There is a need for smaller units at lower price points within easy access to services for workforce ($15-$20/hour), low income, and seniors
- The needs are larger than the resources available, and housing challenges are increasing
- Novel models are needed, including financing, efficiency units, combining housing with trades education for wrap around support
- Need to reduce barriers to rural communities receiving funding
- Consider low-cost housing, such as single-room occupancy (SRO)
- Consider partnerships with housing, employers, and educators (e.g. JobCorp)

Development community

- Support for smart growth, higher density, and mixed-use development to address the housing needs
- Interested in reduced regulatory barriers, including costs associated with regulatory requirements
- Funding for workforce and affordable components to close financing gap
- Infrastructure capacity, including sewerage, can be a pinch point
- Recommendation to form an inter-county consortium to access HUD HOME funding directly
- Potential opportunity in adaptive reuse
- Pinch points are in skilled labor and materials

Focus group discussion outcomes (II/II)

NKADD members

- Coordinate the region around the term “income-aligned housing” to foster a pro-growth mindset
- Kentucky Private Activity Bond (a.k.a. Industrial Revenue Bonds, Tax-Exempt Bonds) in conjunction with 4% Low-Income Housing Tax Credits, which are not limited by Kentucky's annual credit allocation and may be accessed when at least 50% of eligible development costs are financed by tax-exempt bond proceeds (source).
- Consider requiring a housing element in comprehensive plans
- 1-2 bedroom ownership housing product in walkable areas would be attractive if available.

Other notes

- In Covington, the discussion has flipped from addressing urban poverty to avoiding displacement as the potential for households to be priced out increases.

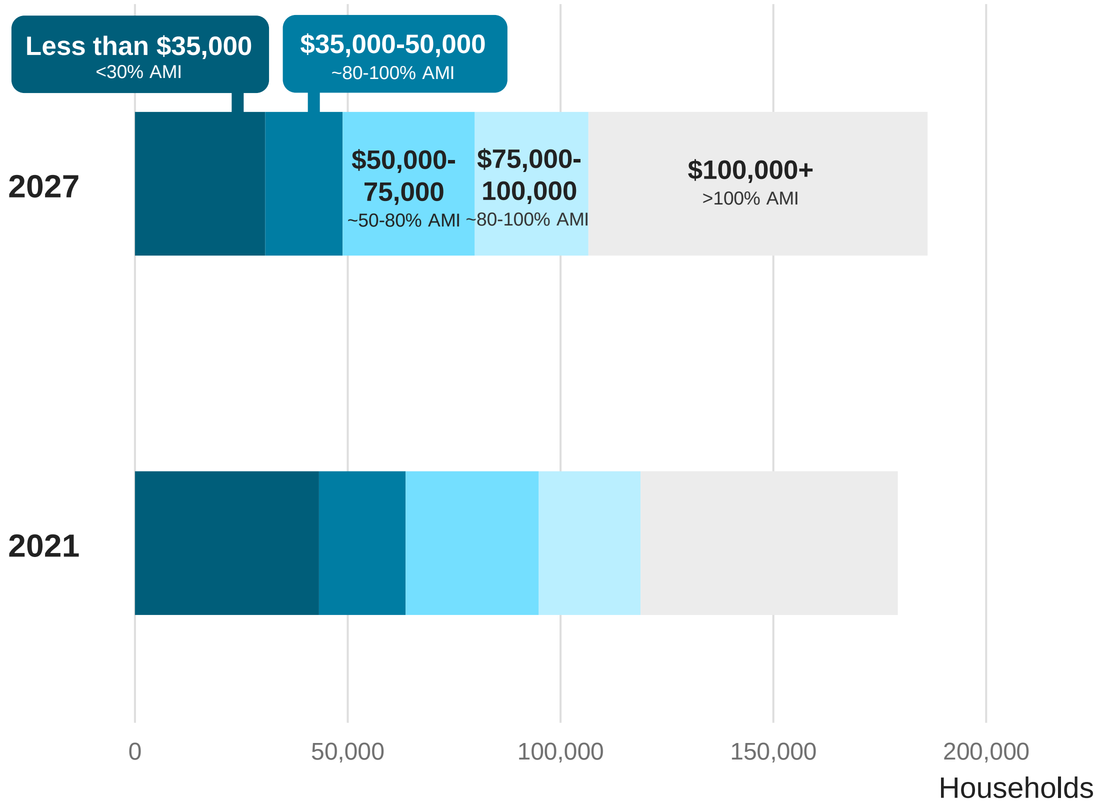
Middle-income brackets are expected to stay fairly stable as NKADD grows.

This graphs tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

NKADD Households, by income bracket, 2021 and 2027

Source: ACS, ESRI



Regional Employment and Commuting Analysis

NKADD's economic engine is producing jobs but not the appropriate housing stock

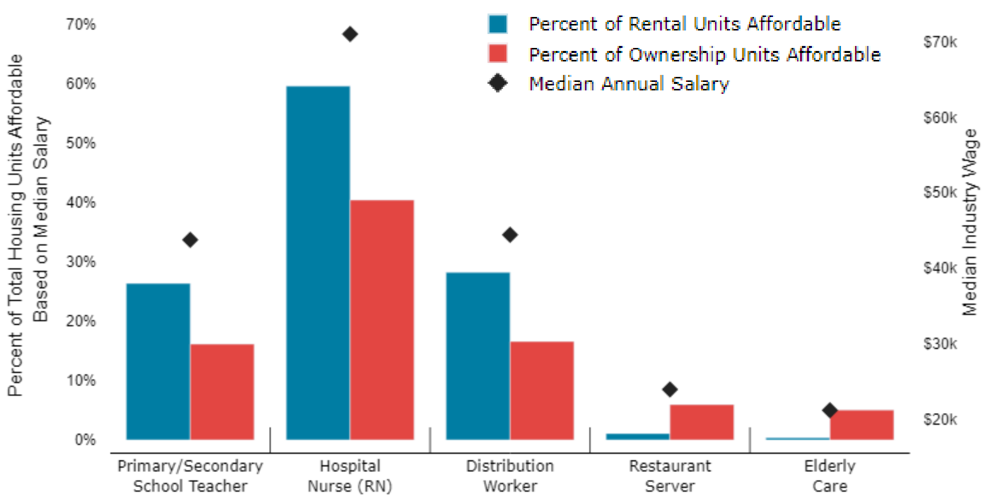
Currently, 60% of NKADD occupations generate an annual average salary below $60,000 (generally considered "workforce" jobs). This includes the current top 6 occupations by employment share (warehousing, school teachers, temp workers, couriers, and restaurant servers). Looking ahead, **67% of job growth will occur in this workforce segment** over the next decade.

Today there are **2.21 workforce earners per home affordable at that income level**. This assumes that at a $60,000 income, a person could affordably pay a maximum of $1,500 in rent or a monthly mortgage on a median home price in the of $128,380. The high demand relative to low supply increases housing costs, generating cost-burdened households. This imbalance also puts upward pressure on wages and forces longer commutes as people seek housing elsewhere. This puts strain on employers by either reducing the labor pool available and impinging profitability. Consequently, the inability to produce adequate workforce housing can hamper the long-term economic development strategies currently employed around the logistics and manufacturing sectors in Northern Kentucky.

The economic reality is 'workforce' jobs are held across age groups and life stages. Many are sole income earners in households that would prefer independent living units. Ensuring adequate housing supply is essential for increasing general prosperity and livability. Subsidized housing programs can generate new affordable apartments, as does Naturally Occurring Affordable Housing (NOAH). Strategies to increase this housing stock and to preserve NOAH rents are necessary and viable strategies to ensure adequate workforce housing.

Housing Units Affordable Relative to Wages

Source: JobsEQ, Stantec



This chart shows how a School Teacher's median wage is $43,740 per year, and the amount of the region's housing that is affordable at this wage is 26% of the rentals and 16% of the for-sale housing.

The Cincinnati Region’s steady growth and job composition reflects the national “New Economy”

Region has seen slow overall job growth in 20 years. Eds and Meds and new economy low wage jobs have increased their share, while mid-wage blue collar jobs have decreased. Each of these segments is covered in more detail in the following section.

New Economy High Wage: Finance, Insurance, and Real Estate (FIRE), Management, Professionals and Information. ‘Head’ jobs concentrated in corporate HQ’s and regional campuses. ‘Sticky’ in an era of globalization.

New Economy Low Wage: Hospitality, retail, logistics, and service sector work. Low-productivity, lower-wage jobs, but high employment numbers. Linked to the consumption of higher income earners.

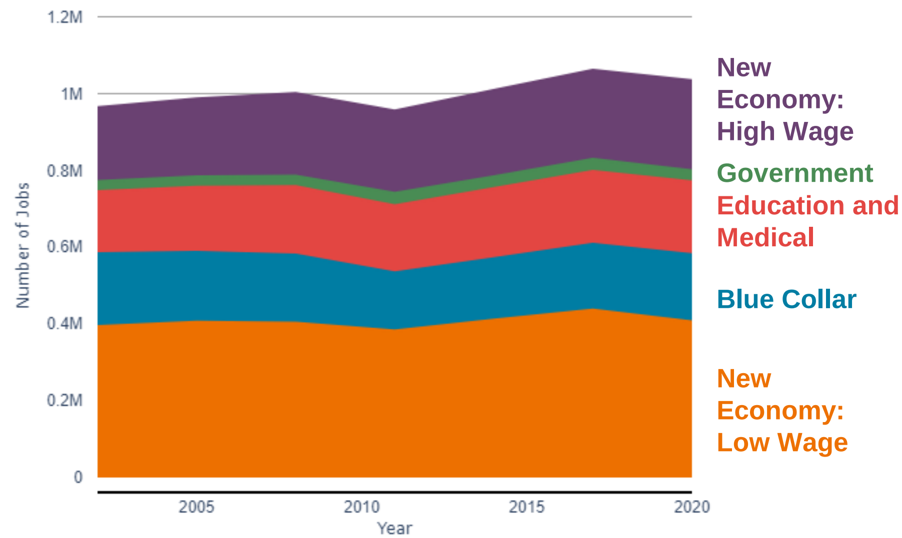
Education and Medical (“Eds and Meds”): Geographically ‘sticky’ jobs (not likely to move) are central to urban locations. Incomes range from low-wage homecare workers, lower-middle teacher salaries to high-end doctors or administrators.

Government: Public sector jobs. Consistent over time, with slight uptick during times of increased public sector spending (recession) and dips during public sector withdrawal.

Blue Collar: Manufacturing, construction, and extraction jobs with middle incomes. While construction jobs are ‘sticky’, manufacturing saw stark declines after 2000 with globalization. Manufacturing clusters together and is more ‘sticky’ in skilled industries like aircraft engine manufacturing.

Cincinnati Metropolitan Region Employment Structure

Source: LEHD



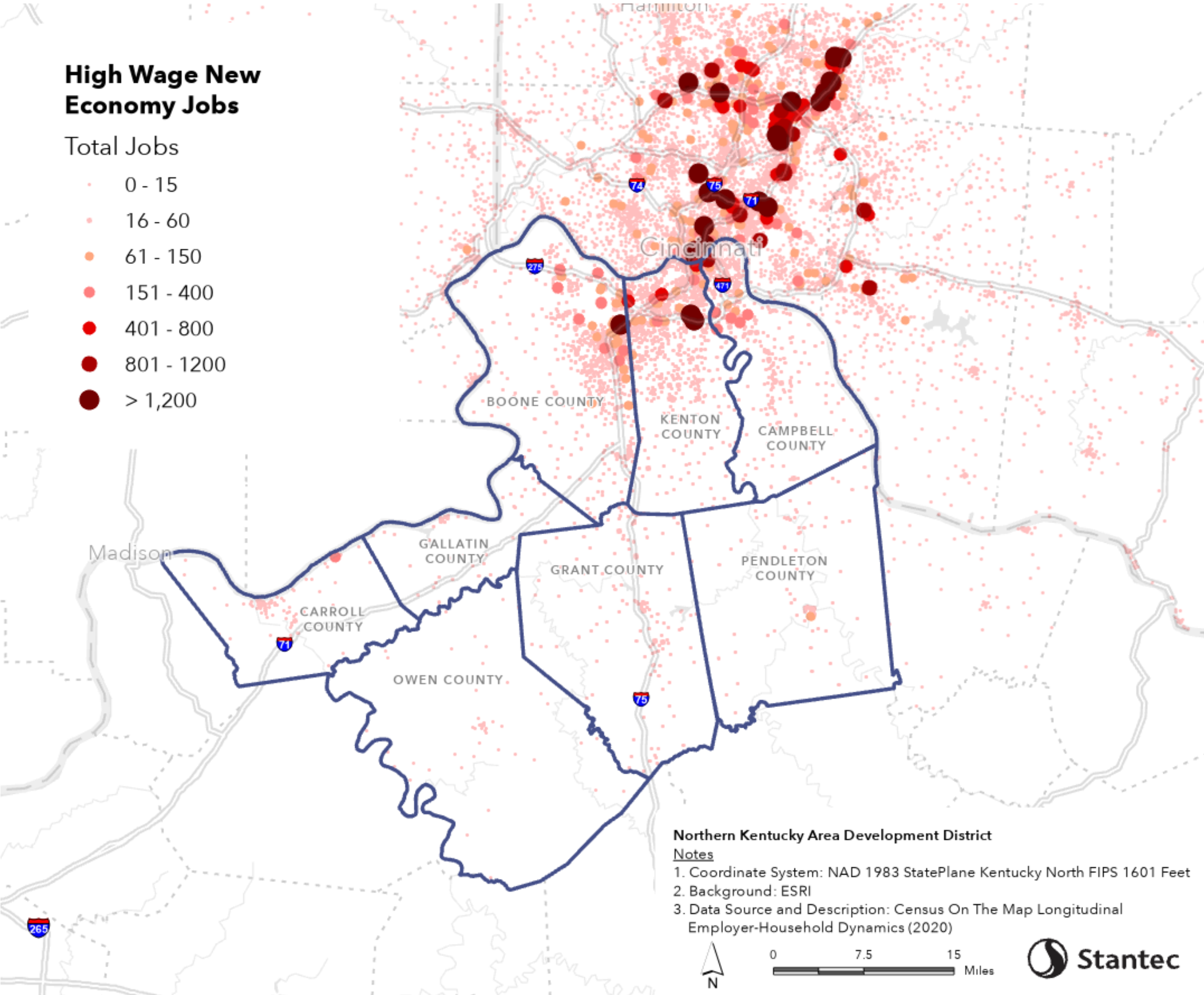
High Wage New Economy Jobs

"New Economy" high wage jobs include Finance, Insurance, and Real Estate, the management of corporations, professional and technical services, and information jobs.

These jobs are concentrated through the northeastern suburbs with some concentration in Boone and Kenton.

Historically located in downtowns, followed by a generation of relocating corporate headquarters to higher wage suburbs. Relocation to urban centers started to occur prior to COVID. Spatial concentration is uncertain due to new office trends.

NKADD contains 14% of total high wage new economy jobs.



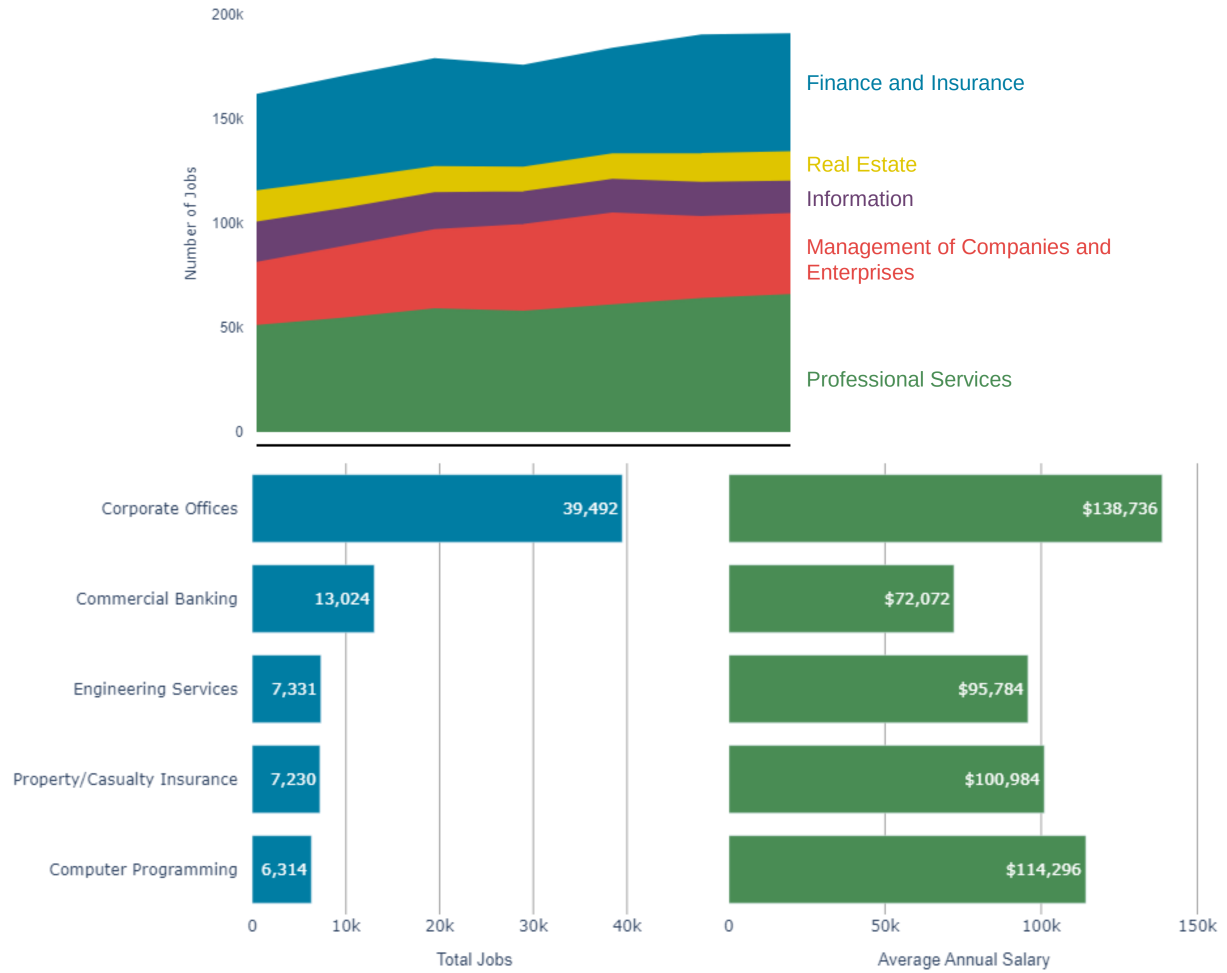
High Wage New Economy Jobs

18% growth in total high wage new economy jobs, while the ratio increased from 16.72% of all jobs in 2002, to 18.39% in 2020.

Most common occupations include working in corporate offices, commercial banking, engineering, and insurance with high average annual surveys. Science-based professionals are employed in the manufacturing sector in chemicals, agricultural processing, and manufacturing.

Large employers include First Financial, Procter&Gamble, GE Aviation, GE Honda Aero Engines, CFM International, the American Financial Group, Archer Daniels Midland, and Kroger Supermarkets.

Fidelity Investments, CITI Group Bank, and Archer Daniels Midland are the largest Northern Kentucky-based finance and management jobs, while scientists and engineers work in professional roles at Duro Hilex, Mubea, Ashland and Bosch.



“Eds and Meds” Jobs

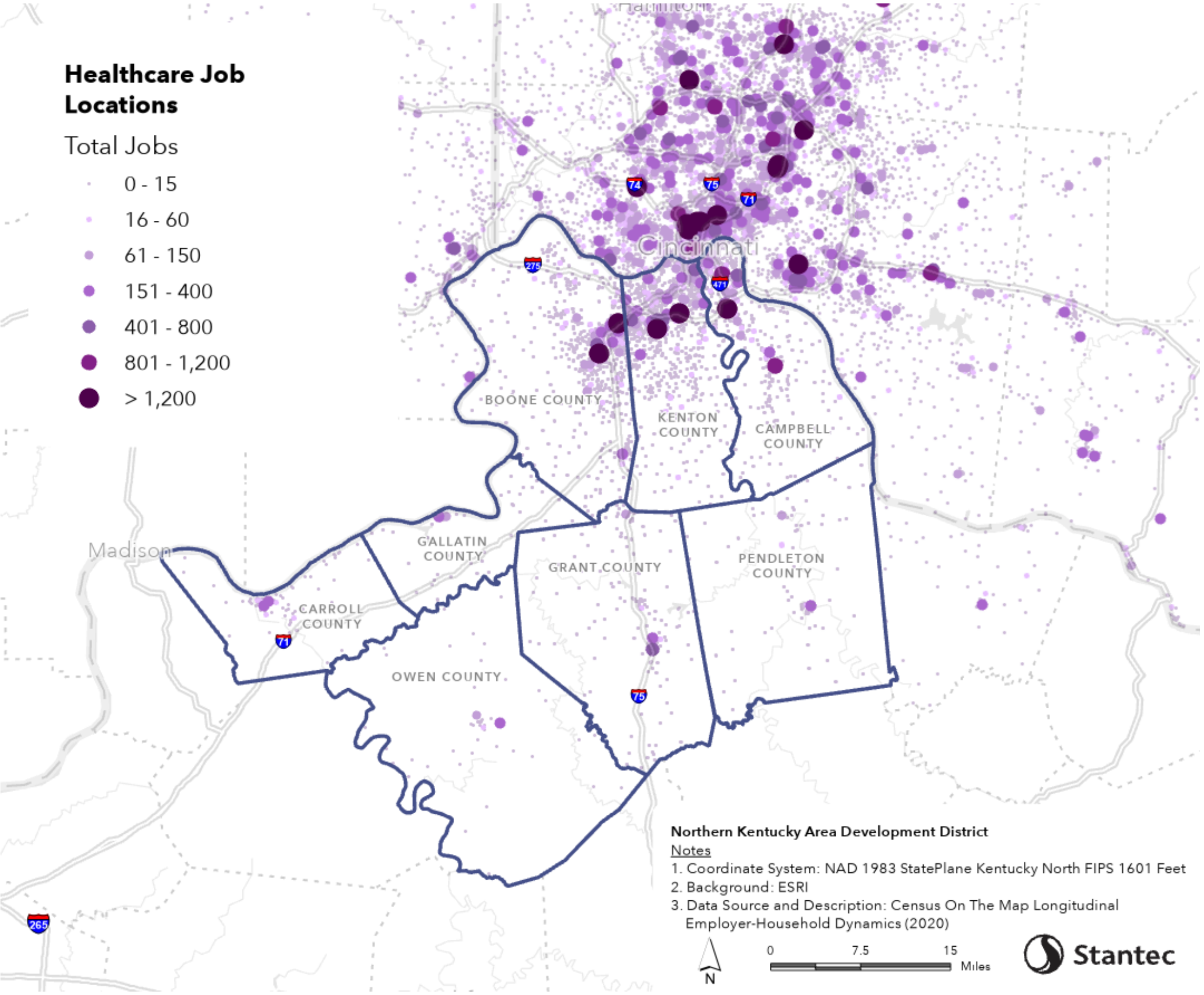
Eds and Meds is a colloquial term to refer to Education and Healthcare jobs. These range from home health care workers on the low end of the wage scale, nurses and teachers in the middle, and doctors and administrators at the top of the wage scale. These jobs are increasingly central to urban locations.

The city of Cincinnati contains higher education centers and central metropolitan hospitals, adding to its employment share

15.23% of Eds and Meds are located in NKADD at a proportion below the regional average.

Christ Hospital, Cincinnati Childrens Hospital and St. Elizabeth Healthcare system with hospitals and satellite campuses throughout the region. Elderly care, and home care are spatially dispersed.

Education includes Northern Kentucky University, Thomas More University and Gateway Community and Technical College.



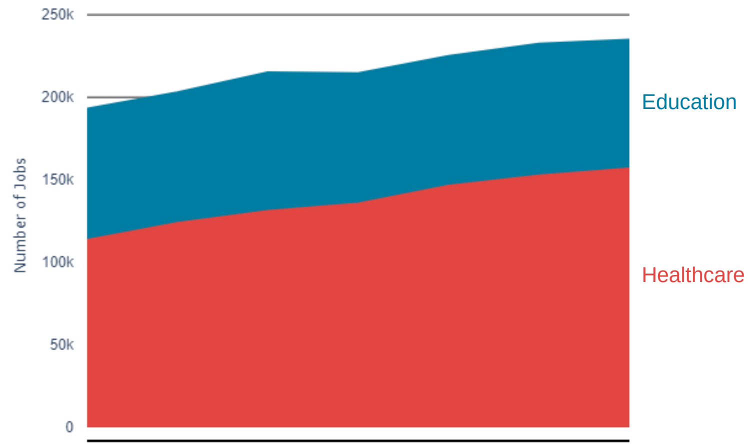
“Eds and Meds” Jobs

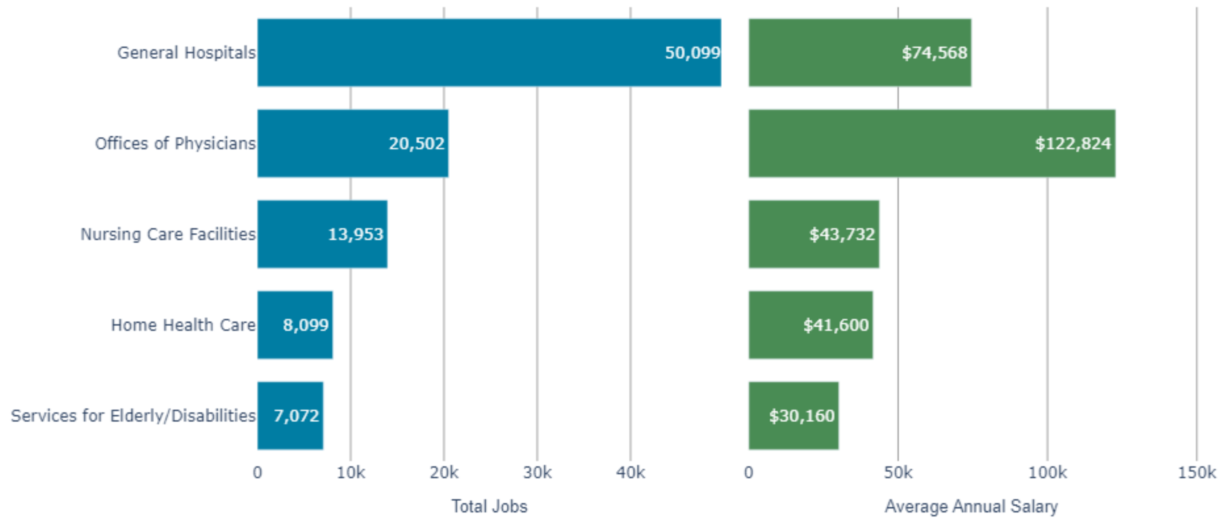
A net change of 21.6% with healthcare driving the net increase.

Increased from 20% of all jobs in 2002, to 22.7% in 2020. The increase is driven by growth in healthcare needs as population ages (2.1% annual growth), more than enough to cancel out a small net decline in education jobs.

Most common industrial occupations include working in General Hospitals, Physician Offices, and Home health care.

Doctors and nurses secure higher income in hospitals compared to low-wage home and elderly care services.



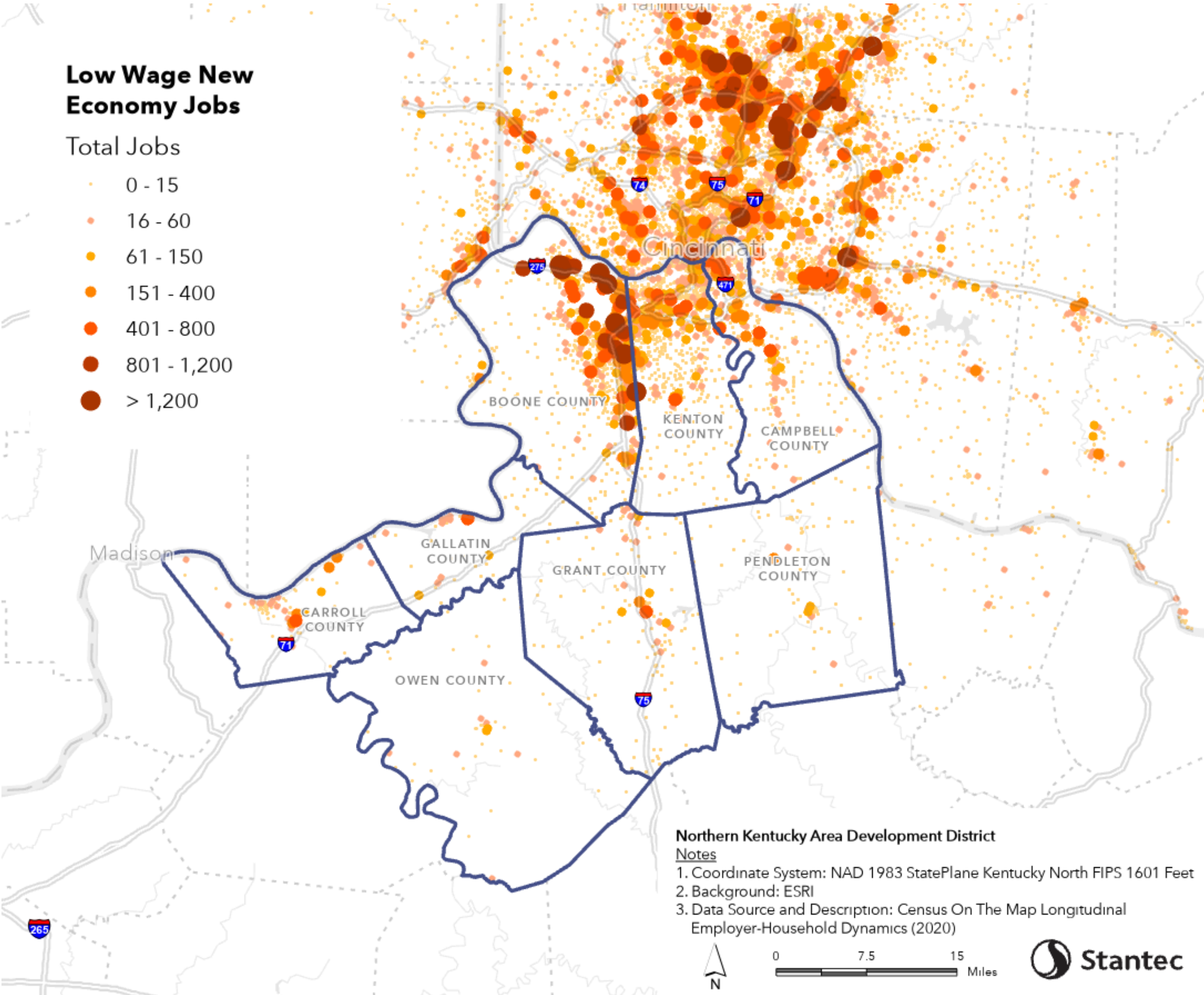


Low Wage New Economy Jobs

24.17% of regional total in NKADD at a ratio higher than the regional average.

Retail and hospitality are spatially disbursed, locating where consumption from high end jobs drive increased effective demand for services. Since productivity is low in the sector, employers add more labor for increased demand, hence its large total share of jobs in post-industrial economies.

The region's main 'logistics' clusters are in northern Boone County and Northeast Cincinnati. Logistics clusters are located in suburban locations, providing access to urban locations but also the required land for large warehouses. Boone's regional logistics cluster combines local e-commerce, a national hub for Amazon's air freight, and the local regional airport.

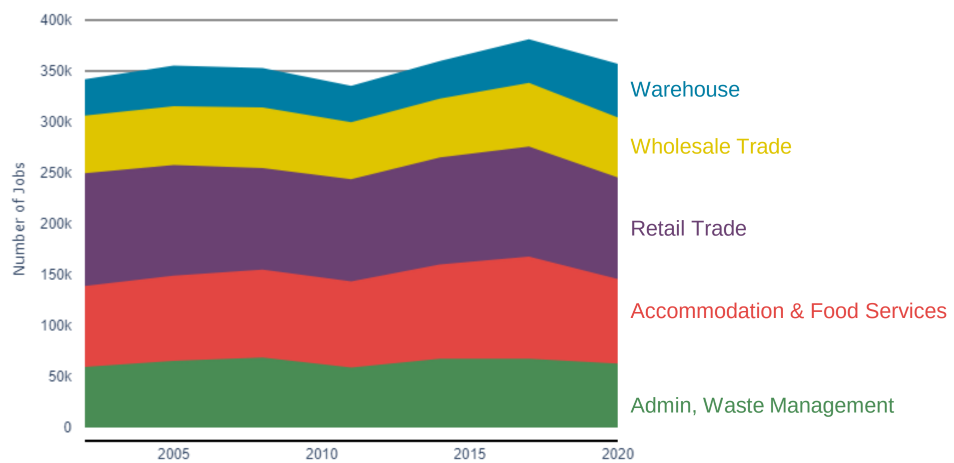


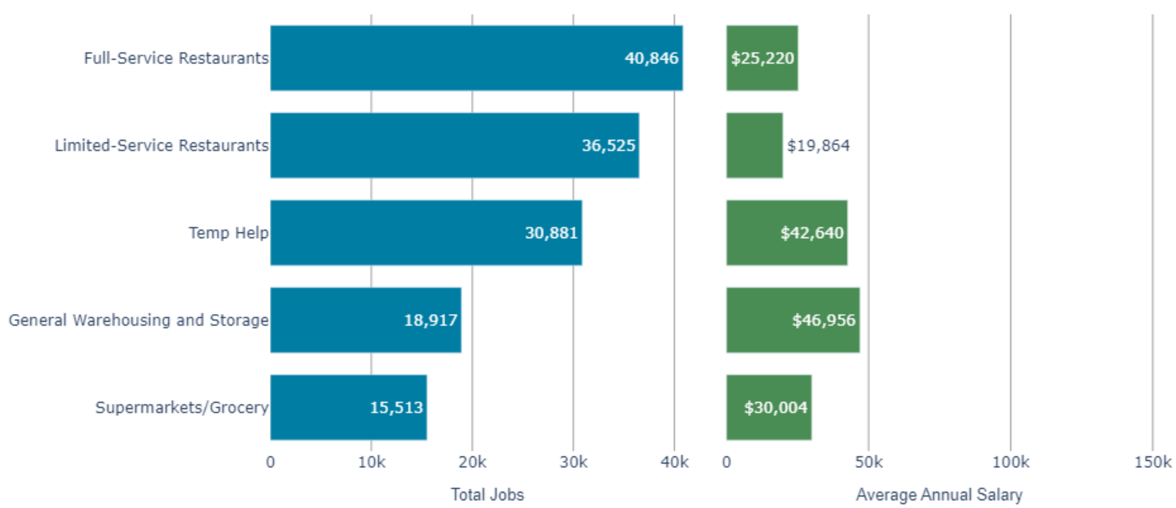
Low Wage New Economy Jobs

There has been low growth of 3.14% since 2002, increasing from 39.22% of all jobs in 2002, to 40.79% in 2020. This is the region's largest employment base.

Most common occupations include working in restaurants, temping, warehouse, grocery stores, and in retail. Annual salaries are on the very low-end of the income scale.

Total employment in the sector fluctuates with consumption. Wages saw growth at the tail end of the 2010s for the first time in twenty years as labor markets tightened and inflation remained low. However, any wage growth was quickly counteracted by inflation. Low rates of unionization and low labor productivity ultimately long-term wage growth in the sector.





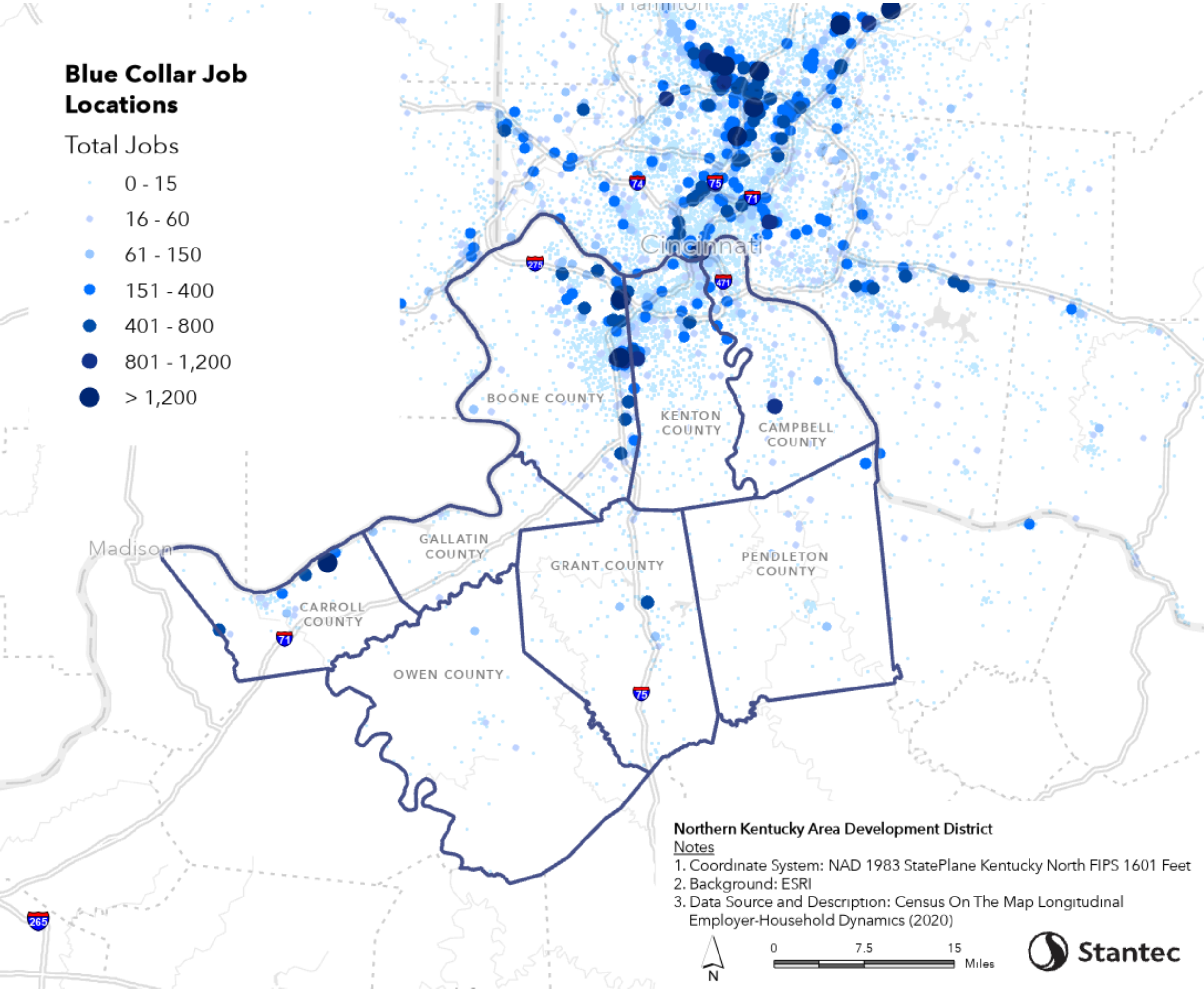
Blue Collar Jobs

18.23% of regional total in NKADD, a slightly higher locational quotient compared to the rest of the region.

A handful of manufacturing clusters exit in the region. High value Aerospace manufacturing is located north of Cincinnati, a cluster that continues to grow due to specialized skills and knowledge in the region.

In NKADD, a manufacturing cluster stretches from southern Florence down I-71 into Walton, with major food processing jobs. Another cluster exists in Carroll County, home to chemical manufacturers.

Construction jobs are spatially dispersed, but an important source of mid-wage employment.



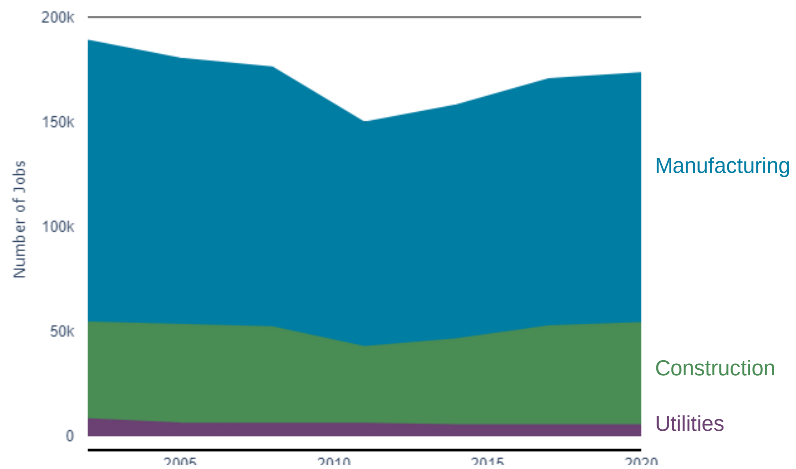
Blue Collar Jobs

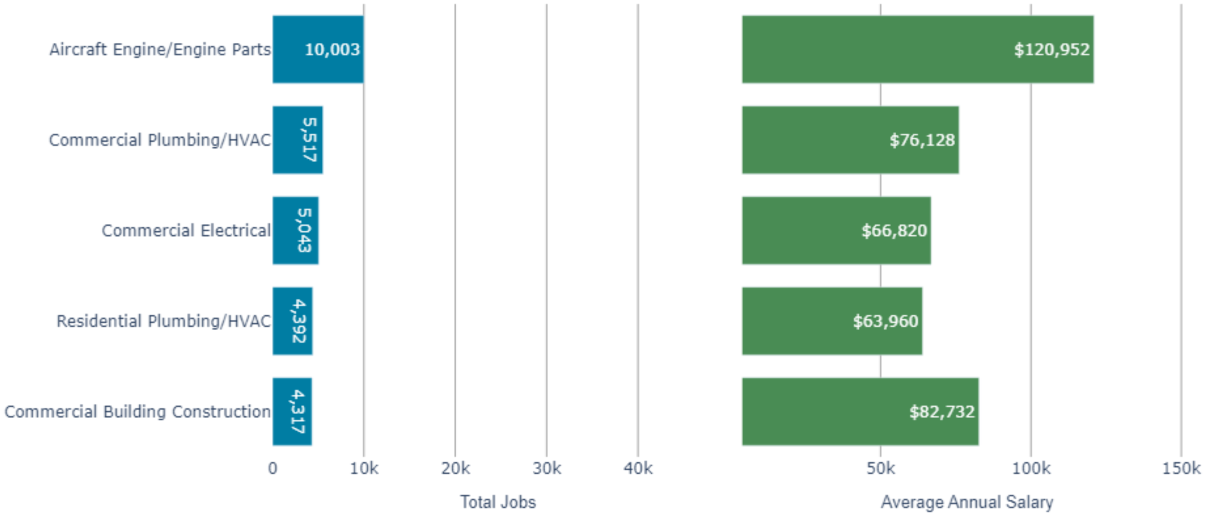
Similar to many locations nationwide, there has been an 8.1% decline since 2002 in manufacturing due to globalization. The ratio of blue-collar jobs decreased from 19.72% of all jobs in 2002, to 16.91% in 2020.

Most common industrial occupations include aircraft manufacturing, followed thereafter by commercial and residential construction.

High-skill, unionized manufacturing jobs and skilled trades drive higher wages than service sector.

Total employment is in decline, driven predominantly by losing manufacturing jobs (most severe declines prior to 2002). It is unclear how the Cincinnati region is poised to benefit from reshoring (typically more concentrated further south in the Sunbelt), but former Rust Belt cities are seeing increases in manufacturing labor.



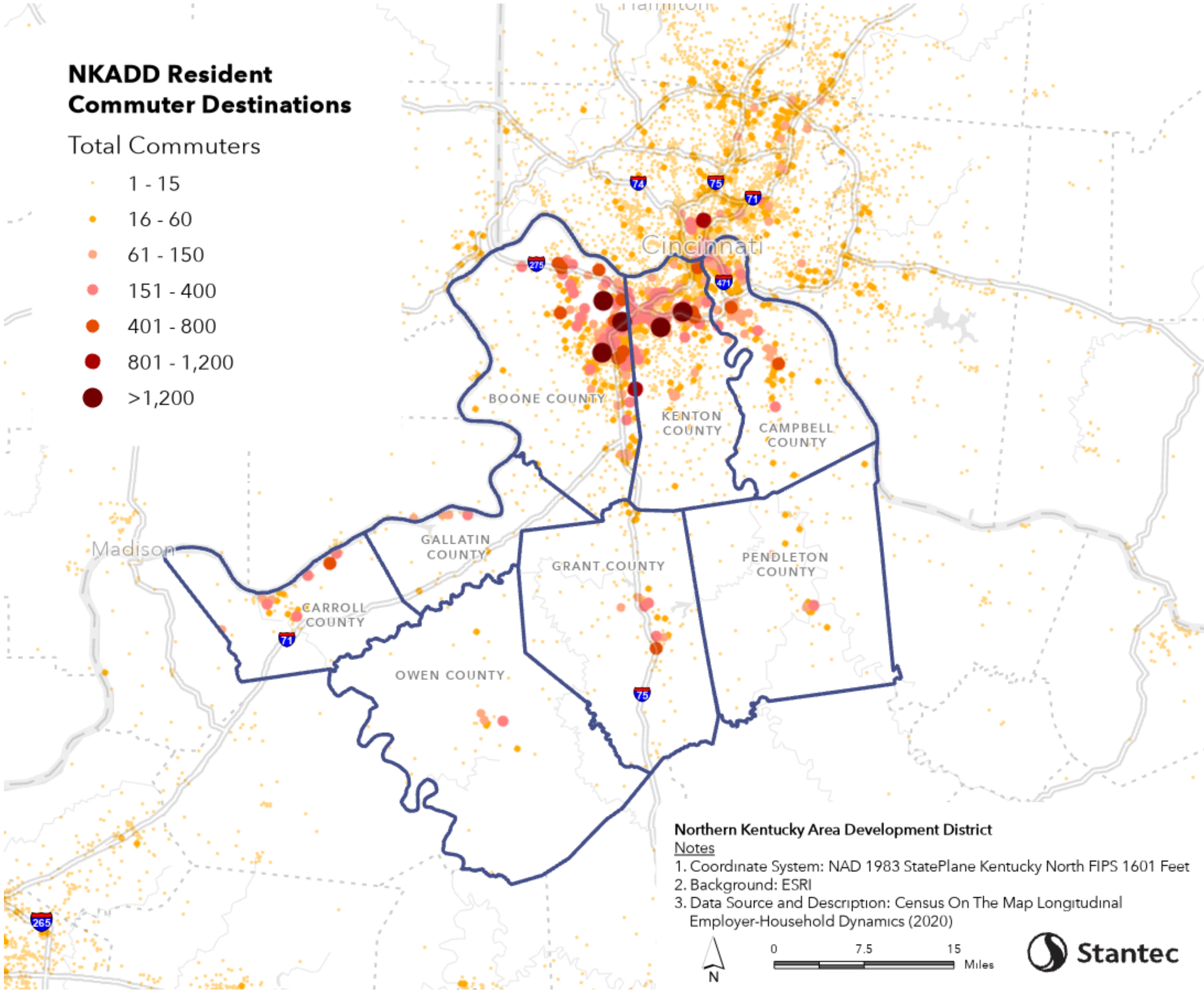


Commuting pattern for NKADD residents, showing employment destinations

NKADD Commute patterns demonstrate high levels of suburb-to-suburb commutes. While radial commutes into Cincinnati remain important, Boone and Kenton are major employment centers in their own right, with Carroll a larger rural employment hub.

Commuting across suburbs is an increasing trend in many urban locations, and one that poses challenges to historic transit patterns that radially extend out of cities.

This points to the need for greater coordination across the NKADD region in housing and transit planning.

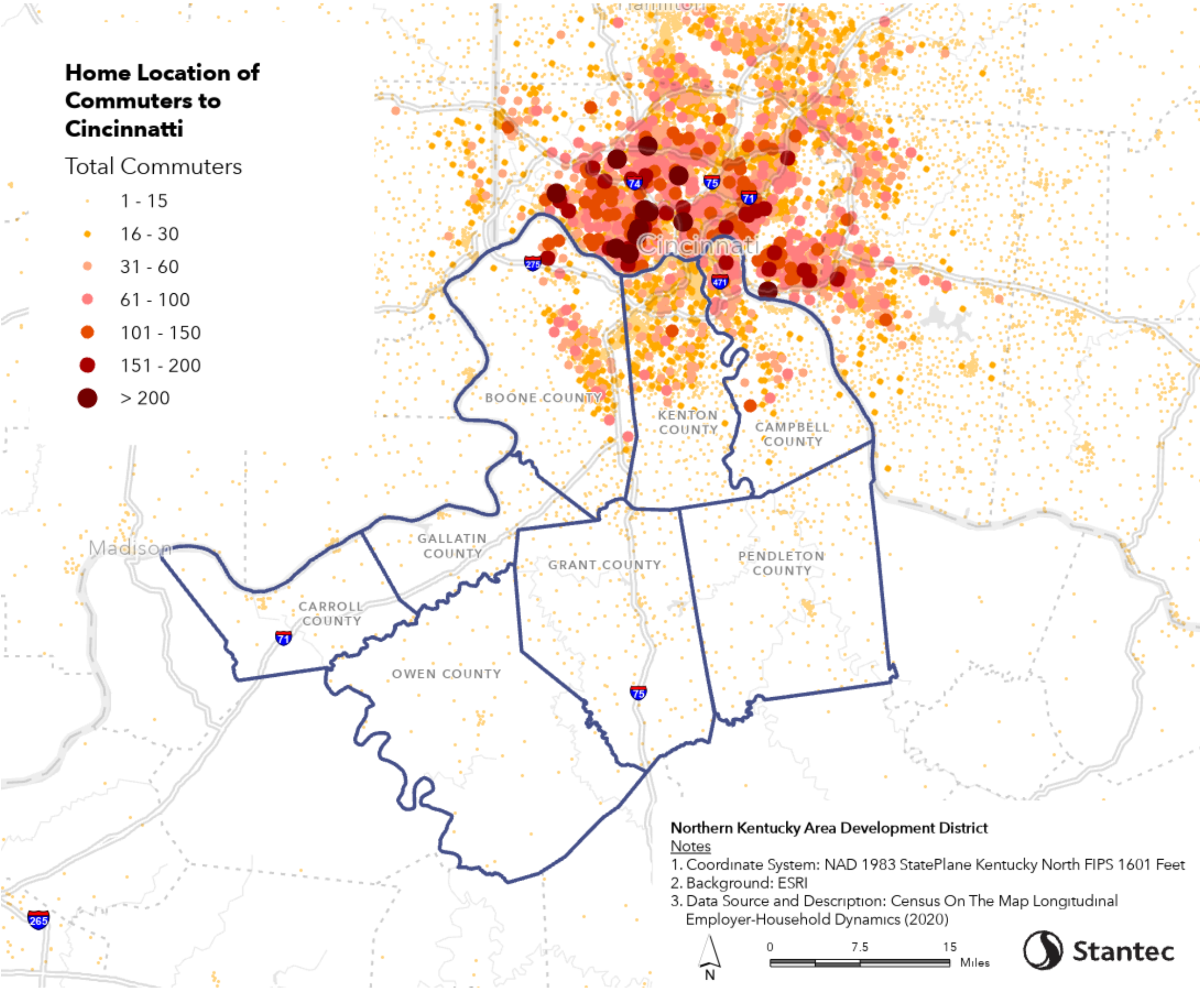


Commuting pattern to Cincinnati, showing resident locations

25,133 people commute from Kentucky into the city of Cincinnati, or 10.6% of total commuters.

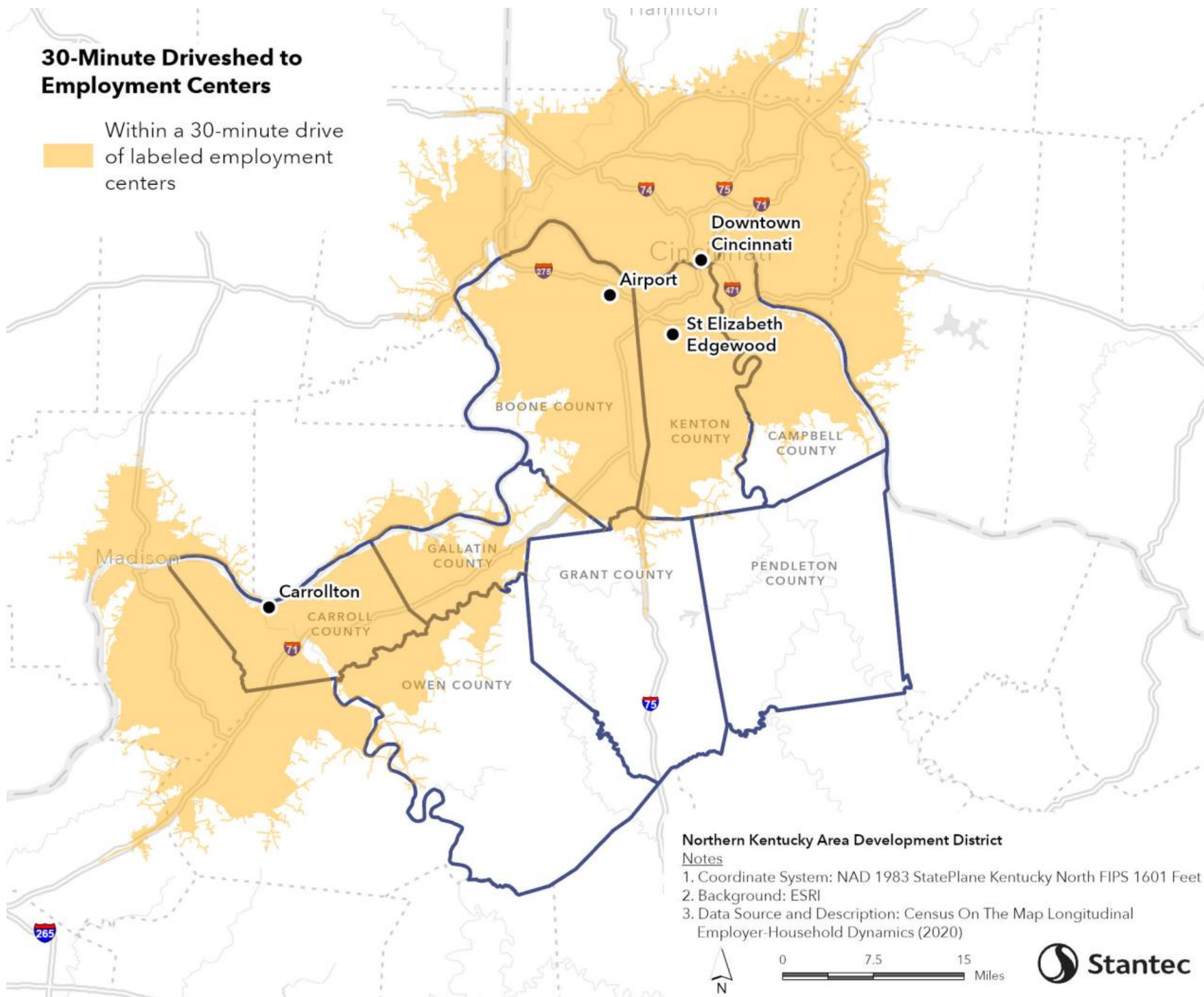
Commuters are more heavily concentrated in northern Kenton and Campbell county, and more likely to work in higher wage New Economy jobs clustered downtown. New multi-family housing in Covington and Newport are specifically designed to attract young professionals into historic urban areas, while newer construction single family suburban housing in Campbell, Kenton, and Boone attracts larger and older households.

Commuters also extend deeper into newer, large single family housing construction in Boone County and Alexandria in Campbell County.



Areas within a 30-minute drive of large employment centers

Most of Boone, Campbell, Carroll, Kenton, and Gallatin Counties are within a half-hour driving commute to one or more major employment centers, while very few parts of Owen, Grant, and Pendleton Counties can reach these employment centers within a half-hour commute.

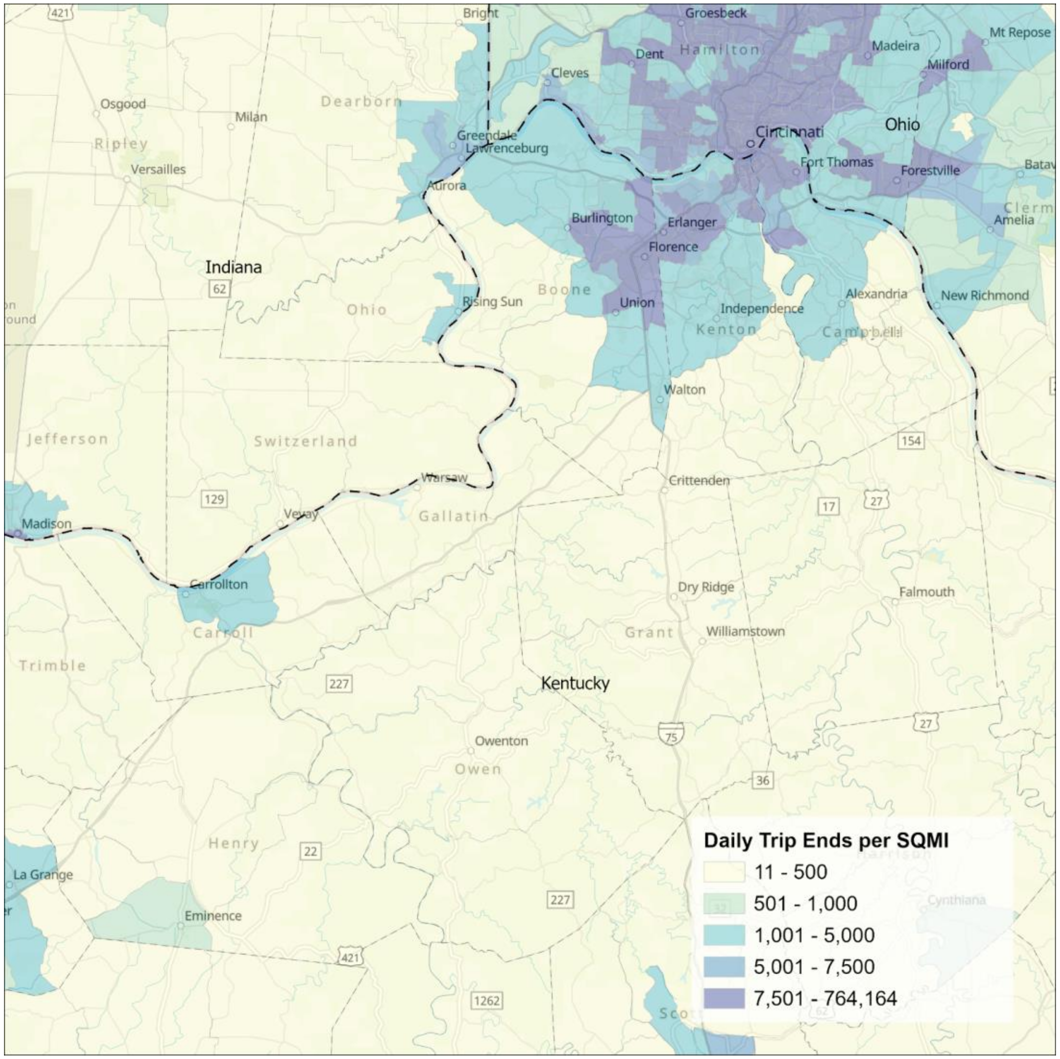


Where do residents go for employment, services, and education?

This map shows the density of all trip ends, including employment but also services, shopping, and education. This paints a clearer picture of where services are concentrated and how the region is connected.

As shown in the following figure, this analysis of trip ends also demonstrates areas where future development would be better connected, and therefore require less overall driving, and therefore less additional traffic.

Trip ends are derived from cell phone data in 2021Q4 via Stantec's data partner ReplicaHQ.

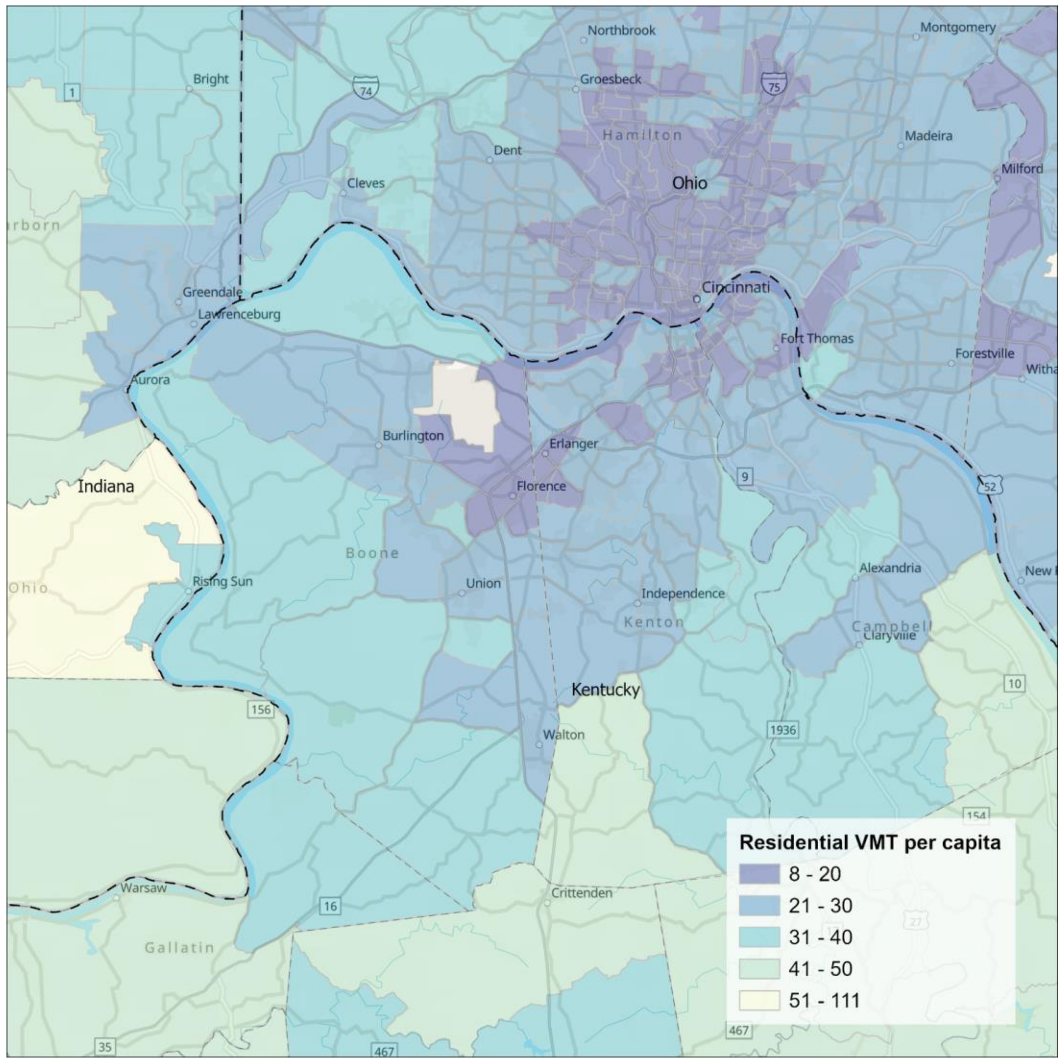


Source: Replica

Lower vehicle miles traveled (VMT) areas show where housing is more connected to daily needs

Housing in the darker blue areas would result in less traffic and better connections to existing services, including schools, shopping, and employment.

Per person VMT is derived from cell phone data in 2021Q4 via Stantec's data partner ReplicaHQ.



Source: Replica

Regional Housing Gap Analysis

Housing gap analysis key findings

This report provides a detailed review of the degree of alignment between the region's housing stock and its residents' housing preferences as well as projections of future household growth and the new housing needed to accommodate it. The following are key findings that have emerged through the course of these analyses:

1. **The number of workforce 3 and 4+ bedroom houses is not aligned with population needs.** In all counties and regionwide, there are considerably more owned houses at mid-cost levels than the current population would demand if making their housing decisions today. As such, it can be expected that, as households move to their next unit, many will shift from an owned house to either a smaller ownership unit (condo or townhome) or a rental option, assuming their preference is available in their community of choice. The one exception to this pattern is houses at the highest cost range where it seems the region could absorb more than it has.
2. **The region does not have enough smaller ownership units.** In all counties and region-wide, there are too few ownership condos and townhomes (up to 2 bedrooms) compared to what the population would prefer. If present, these units would be absorbed by the growing cohort of small, non-family households such as downsizing empty-nesters, singles, and couples.
3. **There are too few affordable units, especially at smaller 1- and 2-bedroom sizes.** There is a pronounced shortage of units affordable to lower-income households. While the regional gap is most pronounced for lowest-cost 1-bedroom rental units, affordable ownership units are also in short supply compared to the demographic characteristics.
4. **Growth is expected over the next decade.** More than a thousand net new households a year will be wanting to call NKADD home. These households are expected to demand both smaller affordable rental housing as well as larger and more expensive owner-occupied housing. Some of this new demand can be absorbed in the "excess" larger homes if smaller housing is created to serve the demographic characteristics of the current population. Future production of larger units could be offset by existing units becoming available through market churn as misaligned households move out of some of them in favor of other types that better fit their preferences and ability to pay.
5. **New housing production is needed at most cost levels with a considerable portion below market rate**. While most counites will see demand for market rate rental and ownership housing continue, a substantial portion of new regional demand may require some level of subsidy or other support to deliver.

Real-time supply side analysis with machine learning

A parcel-level inventory of all housing units within the region incorporates Census data, rental data from CoStar, real-time cost information from web-scraping algorithms, and other sources, to establish a predictive technique to assign monthly cost attributes to each unit using statistical regression and related methods. The model incorporates HUD data on public and subsidized unit totals, costs, and bedroom counts at the county level.

1) Parcel Data from the Warren Group

Parcel data contains information on the location, year built, homestead status, assessed value, number of bedrooms, bathrooms, and total rooms, condition and the property use type of each parcel. Many are missing attributes. Completed entries then train Machine Learning (ML) models to predict and fill missing data. Staff ground-truth this data with existing housing surveys such as the American Community Survey, ensuring the estimates for bedroom size, unit counts, and building types reflect existing data.

2) Real-Time Data from Leading Sources

<u>CoStar</u>: Aggregates data on multi-family rental buildings, including its class, intended market, condition, number of units by size, and rent for units at each size.

<u>Apartments.com</u>: We scrape rental data from Apartments.com listings, which can include both large multi-family buildings with real-time prices, and single-family homes, condos, or other units posted

<u>Padmapper</u>: Scraped rental data from Padmapper.com. Padmapper combines rental postings from a variety of sources, including smaller rental buildings like homes, condos, duplexes and triplexes in addition to large multi-family units.

3) Real-Time rent with parcel information

This combination creates a database of specific parcels and the rent and a 'training' dataset for statistical ML models. Stantec uses 20 variables to help predict rent such as location, median rent for apartments by size in each block group the parcel is located in, size, age, condition, bedrooms, bathrooms, assessed value per unit, etc.

Stantec checks predictions in a 'test' dataset – or 20% of the train dataset set aside – to assess the performance of the best ML model. The model then predicts market rents for all properties designated as 'rental' in the region. A similar model is developed and applied by the Warren group to determine the market value of condominiums and homes.

This dataset gives a detailed breakdown of all units in a region by building type, tenure, bedroom unit count, and type, as well as the rest of the building attributes. Using the estimated monthly housing cost to afford the unit, we get a specific breakdown of the cost to own or rent.

4) Aggregate and Analyze

This fine-grained and detailed dataset enable us to aggregate data at a fine grain level. Stantec visualizes and analyzes data based on cost, location, year built, and development type.

Example regression analysis comparing Stantec's predicted to ground-truthed rent for parcels

Housing gap informed by supply, preference, growth forecasts, and production (I/II)

Current need

Housing preferences are derived by analyzing the housing choices made by households who moved within the last 12 months per the most recent census (in this case, 2021 Census ACS). By isolating just these recent movers, the analysis can model housing market decisions typical households of various incomes and sizes are making in the present market based on their current needs and ability to pay. This is referred to as the market's "current preferences."

Typically, housing affordability is defined as a household spending 30% or less of their income on aggregate housing costs. Maximum housing cost is capped at 25% in this analysis because the data only includes monthly rent or mortgage and tax. Assuming an additional 5% should be added to cover costs such as utilities and insurance brings the effective cost ceiling approximately to the 30% standard.

Identifying the gap

Comparing the current distribution of preferences against the current housing supply reveals how well aligned (or how misaligned) these two sides of the market are at each income level, tenure, and unit size. Shortages occur when there are more households preferring a given unit profile (cost, tenure, size) than there are such units available within the geography. Surpluses occur when there are more of a given unit profile than there are households who would prefer it.

The results of this analysis should be considered indicative of potential future shifts in settlement patterns and not necessarily predictive of where or when households might actively change units. There are numerous personal reasons a household might choose to move or remain in a given year. Also, even if they did choose to move, a unit matching their exact preference might not be available.

Affordability gaps are evident as shortages among the lowest cost units. Because the households included in this analysis are currently housed within the same geography, it can be assumed many at corresponding income levels are currently cost burdened for lack of affordable options.

Growth projection

As a precursor to estimating future housing production targets, the household growth projection establishes the trajectory of growth that will drive future housing demand.

Past years' change is derived from corresponding years' Census data. This should be considered the actual, observed flux in household counts by income over the past decade or so. This historical data extends to 2021, the latest year for which Census data is available.

The five-year projection is derived from Esri estimates for household change by income between 2021 and 2027. The future projection originates from 2021, the most recent Census year. Looking past 2027, the growth trend from Woods & Poole estimates are used, a widely citied source for long-term population and employment projections.

Housing gap informed by supply, preference, growth forecasts, and production (II/II)

Production need forecast

The housing production forecast establishes how many units are needed over the next 5 years to accommodate expected new demand, plus any adjustments for lack of vacancy and replacement structures. None of the counties in the region have sufficient levels of overcrowding to require an adjustment. Demand is primarily driven by household growth and driven by the need for more units to accommodate more people.

A vacancy rate of about 5% is considered indicative of a healthy housing market. Lower vacancy rates constrain potential movers and might drive up prices. Therefore, this analysis considers the current vacancy rate and, if under 5%, adds units to support a future rate closer to the healthy standard.

Though some more so than others, all housing markets include some units that are or will be demolished in the course of new development, either because they are unfit for habitation or obsolete. The production forecast considers the typical age and condition of local housing stock to assign a replacement factor and adds units to the total accordingly.

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate higher volumes of unit types (cost/tenure/size) that will be in demand and smaller numbers indicate unit types less urgently in need based on projected household growth.

The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver.

Housing cost calculation

The calculation of monthly housing cost differs between renters and owners. For renters, the monthly maximum housing cost is determined as base rent not exceeding 25% of household income. 25% is used as it does not include additional housing related expenses such as utilities and security deposits that add an estimated 5% to base rent. As an example – for a rental household earning $74,999, the monthly maximum housing cost would be 74,999 divided by 12 months which is equal to 6,249.92, and 25% of this monthly household income to derive a maximum (rental) housing cost of $1,563.48

For owners, the monthly maximum housing cost is a function of monthly housing payments on a fixed-rate mortgage and additional costs of taxes and insurance. Our assumptions are a mortgage interest rate of 5%, a mortgage term of 30 years, and a down payment of 5%. On top of monthly mortgage service fees, we add an additional 15% for insurance and a monthly tax amount using the county tax rate and assessed value to calculate housing cost. For each bracket, we assess the ‘maximum’ value at 30% of monthly household income.

NKADD regional housing demand by tenure, cost, and size

Using **25% of household income as the baseline** 'affordability' level, we project the number of units demanded at certain price points according to current household incomes and composition. We currently take the current composition of housing tenure (own versus rent) as the baseline. Willingness to pay may be different than ability to pay, especially with households above area median income.

Housing Need

Our model assumes that individual households with one adult householder or partnered couple need one bedroom. Families with children need additional rooms depending on the age and gender of children present. Households with additional adults need additional rooms.

Estimated Housing Preference

The model also accounts for housing preference by assuming 20% of households will prefer units one bedroom larger than their minimum need, and 10% an additional two bedrooms.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	3,888	3,780	1,911	336	393	1,730	3,356	963
$15,000-24,999	$521	2,772	2,784	1,591	404	326	1,742	3,534	1,024
$25,000-34,999	$729	2,300	3,078	1,691	287	295	1,884	4,322	1,288
$35,000-49,999	$1,042	2,690	3,593	2,125	449	373	2,626	7,465	2,396
$50,000-74,999	$1,563	2,348	4,171	3,037	700	456	3,445	11,923	4,797
$75,000-99,999	$2,083	871	1,918	1,641	518	338	1,979	9,635	5,202
$100,000-149,999	$3,125	552	1,249	1,272	403	254	2,202	13,990	11,408
$150,000-199,999	$4,167	131	237	324	172	75	696	4,851	6,567
$200,000 or more	--	141	231	178	76	52	447	2,788	6,083

Housing demand is determined by the number of households that need housing units at certain price points. Households differ in size, composition, and income - differences captured in our population data. (Sources: ReplicaHQ, Census, ACS, PUMS).

NKADD regional housing supply by tenure, cost, and size

Housing supply is determined using granular parcel-level data. We conduct a detailed statistical analysis to capture a portrait of the total number of housing units currently occupied by renters and owners in the region.

Rental
Drawing on available real-time rent data drawn from live web postings, we implement a statistical model to predict rents for all rented housing units in the region. This enables us to understand monthly rent costs at current market prices. Similarly, we draw on a statistical model to predict current home prices.

Ownership
We model monthly housing costs as the monthly payments on a market price home based on a 30-year mortgage with a 5% down payment and 5% interest rate. Mortgage payments are combined with monthly tax payments at current rates and insurance. Importantly, this is different than what people *currently* pay, but instead understands market supply based on current rent, price, and macroeconomic variables.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	9	0	0	0	67	1,154	2,707	197
$15,000-24,999	$521	696	40	2	0	115	1,156	2,682	293
$25,000-34,999	$729	3,524	1,894	101	0	200	1,489	3,545	540
$35,000-49,999	$1,042	5,095	6,425	1,286	18	393	4,233	7,535	1,248
$50,000-74,999	$1,563	2,838	8,524	3,987	56	292	7,703	18,939	4,726
$75,000-99,999	$2,083	665	5,300	6,611	717	110	3,244	18,404	8,393
$100,000-149,999	$3,125	363	1,232	1,887	2,927	62	1,683	11,603	18,807
$150,000-199,999	$4,167	0	56	82	295	25	300	1,913	5,910
$200,000 or more	--	0	0	0	0	12	129	697	2,226

This table includes affordable, rent-restricted, and rent-subsidized units.

The region's housing gap shows competitive segments in blue and misaligned supply in red

Gap Methodology

The housing gap combines the units at different bedroom sizes and housing tenure demanded at affordable price points and the total units supplied for renters and owners at market prices. The product is either a housing surplus or deficit for units at price points and bedroom size that captures where housing demand is not meeting current housing supply, or where housing supply currently exceeds housing demand.

Gap Snapshot Results

- NKADD needs to provide housing for the lowest income
- The housing supply is overly weighted towards 3-bedroom units in the $900 to $2000 per month range, while the population characteristics indicate a stronger demand for 1- and 2-bedroom units, especially ownership

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-3,886	-3,780	-1,911	-336	-326	-576	-649	-766
$15,000-24,999	$521	-2,650	-2,777	-1,590	-404	-211	-586	-852	-731
$25,000-34,999	$729	-1,801	-2,720	-1,669	-287	-95	-395	-777	-748
$35,000-49,999	$1,042	-2,390	-3,014	-1,631	-445	20	1,607	70	-1,148
$50,000-74,999	$1,563	-1,997	-1,773	30	-646	-164	4,258	7,016	-71
$75,000-99,999	$2,083	-571	2,602	4,419	197	-228	1,265	8,769	3,191
$100,000-149,999	$3,125	-459	-375	538	2,524	-192	-519	-2,387	7,399
$150,000-199,999	$4,167	-131	-212	-267	123	-50	-396	-2,938	-657
$200,000 or more	--	-141	-231	-178	-76	-40	-318	-2,091	-3,857

Note on interpretation:

Blue cells denote a deficit of housing at that size and price point. The darker the color, the deeper the deficit. Conversely, red units represent a housing surplus, or where the supply of housing is larger than current demand.

John Green Lofts, Covington: Studios, 1-bed, 2-bed for $1000 to $2800 per month

Connecting housing need to the region's Area Median Income (AMI) of $103,600

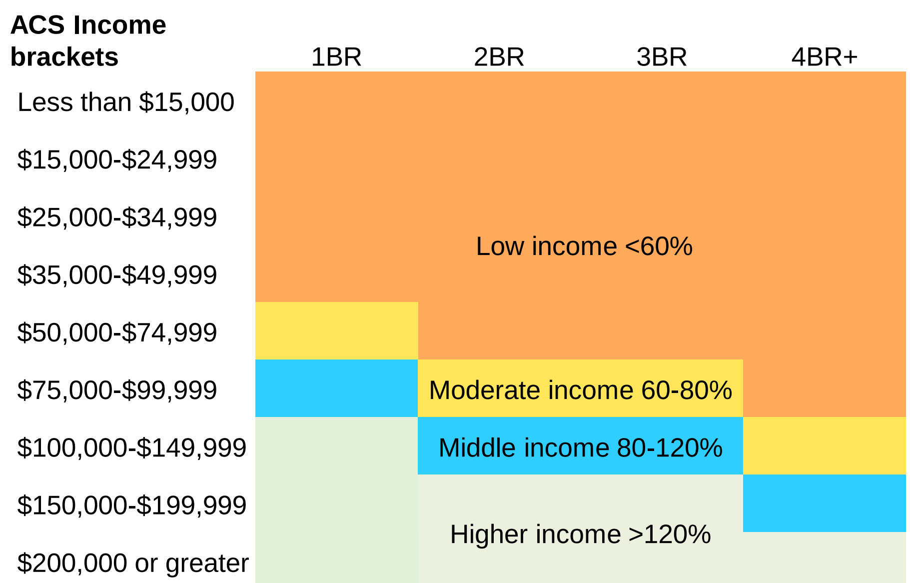
HUD establishes Income Limits (ILs) per country for determining eligibility for assisted housing programs, such as low-income housing tax credit (LIHTC) based on the area median income (AMI) and the number of people in the household.

- Households with 60% AMI and below qualify as low-income and contribute to qualifying for tax subsidy.
- 60-80% is moderate income.
- 80-120% is middle and may require incentives for housing production.
- More than 120% is considered market rate for housing production.

These figures are for the [Cincinnati, OH-KY-IN HUD Metro FMR Area](), which includes the NKADD region except Carroll, Grant, and Owen counties, which have a lower AMI. The lower AMI in those three counties are reflected in the county profiles section.

Income bracket and bedroom by AMI group

Source: ACS, ESRI, HUD



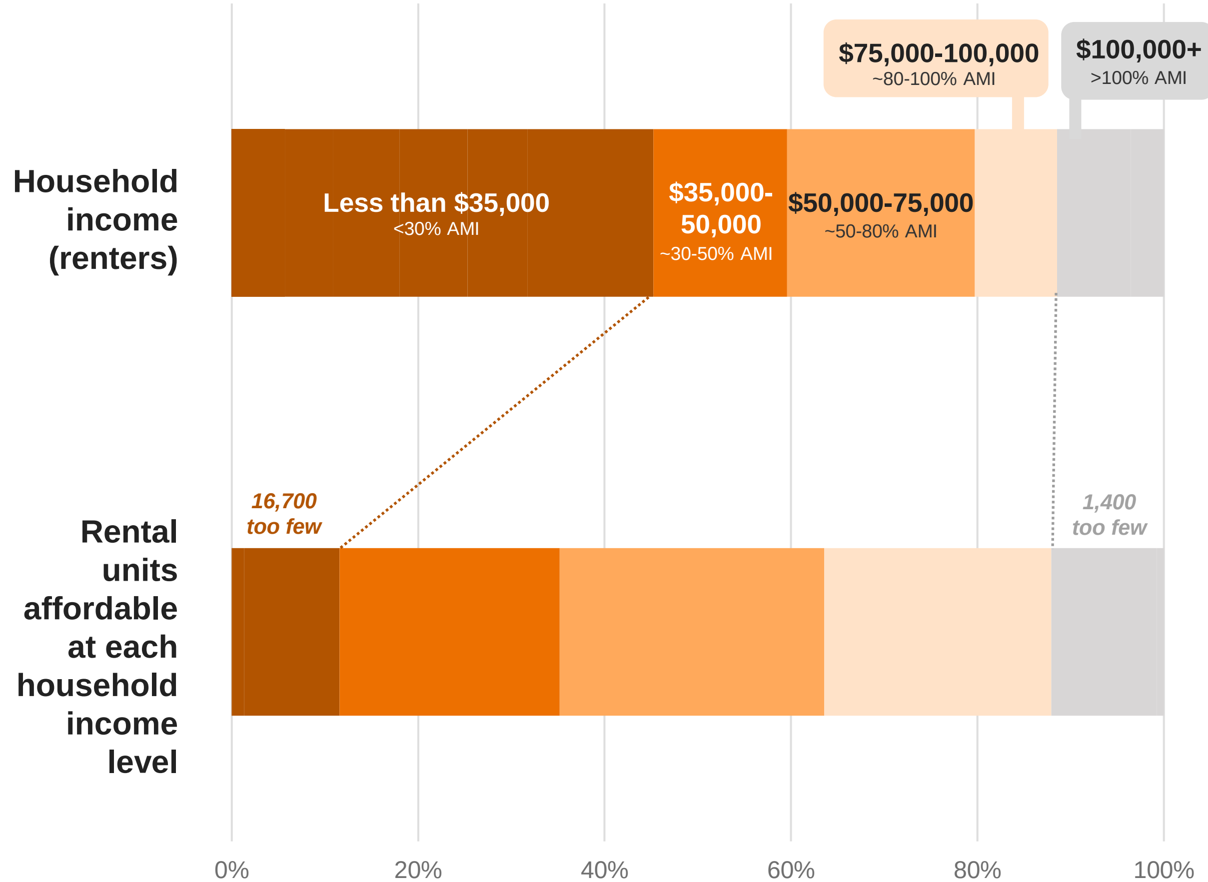
Income limits by household size

Source: HUD

	1 person	2 person	3 person	4 person	5 person	6 person	7 person	8 person
Low-income limit (60%)	$ 43,560	$ 49,740	$ 55,980	$ 62,160	$67,140	$ 72,120	$ 77,100	$ 82,080
Moderate income limit (80%)	$ 58,020	$ 66,300	$ 74,590	$ 82,880	$ 91,170	$ 96,140	$ 103,600	$ 107,740
Middle income limit (120%)	$ 87,020	$ 99,460	$ 111,890	$ 124,320	$ 136,750	$ 144,210	$ 155,400	$ 161,620
Bedrooms (Stantec estimate)	1BR	1-2BR	2BR	2-3BR	3BR	3-4BR	4BR+	4BR+

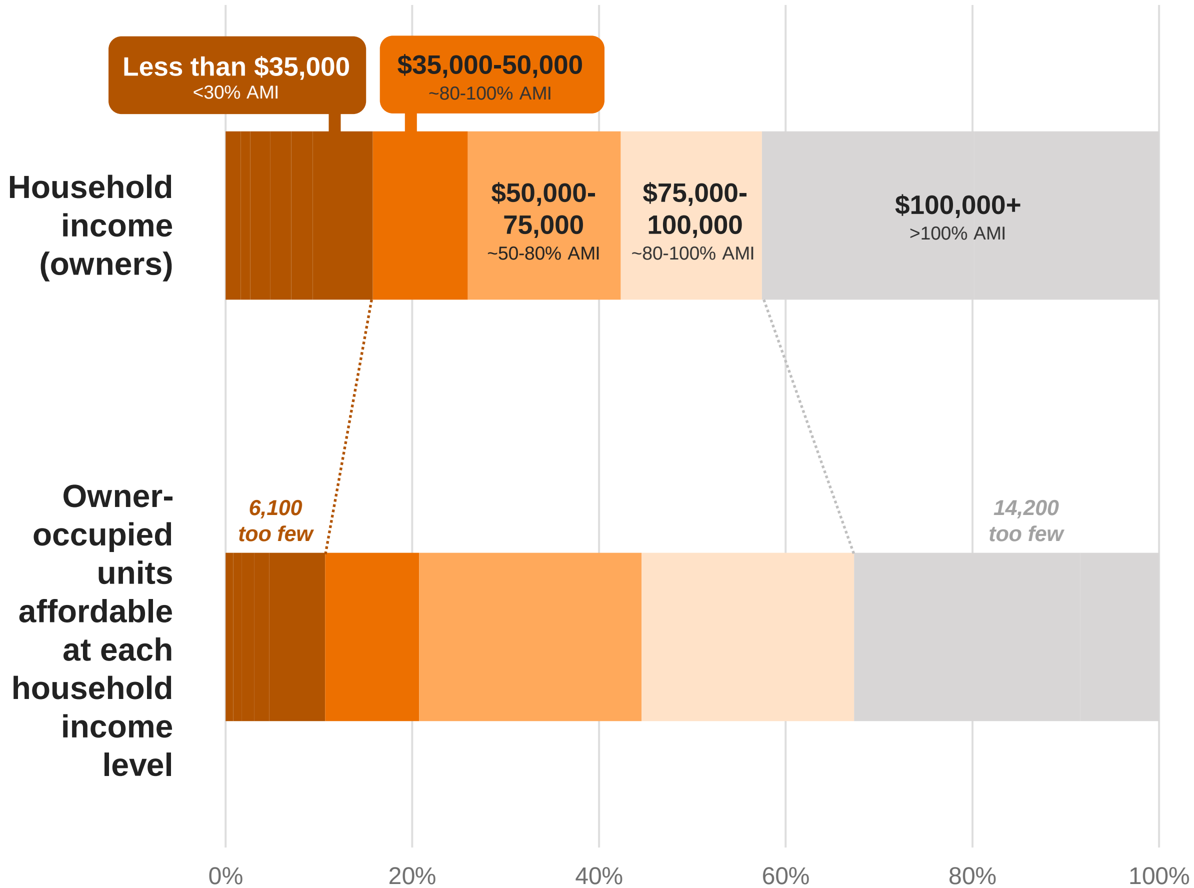
There are currently too few rentals for very low-income renters

There is a large gap at the lowest levels of income between the number of households and the availability of rental housing. The result of this mismatch is a segment of the population that is rent-burdened, meaning they spend more than 25% of their income on rent. The higher end of rental properties monthly costs is also larger than the population to support those costs.



There is a slight gap in ownership housing for very low-income ownership

There is a small gap between the number of very low-income homeowners and very affordable housing. At the other end of the spectrum, there is a high-earning segment that is likely able to pay less than 25% of their income on housing in the region.



NKADD's 5-year production target is 6,650 units total at a rate of about 1,330 units per year

Key takeaways

In the next 5 years, there will be a need for 1,750 additional 1- and 2-bedroom units for low- and moderate-incomes (monthly housing costs $500 - $1,500) and about 430 units for very low-income households (monthly housing costs below $320).

Summary by category

Demand by bedroom

1,200 1-beds
1,810 2-beds
2,180 3-beds
1,460 4-beds+

Demand by tenure

1,850 rentals
4,770 owner-occupied

Demand by AMI

3,025 Low income <60%
940 Moderate income 60-80%
1,015 Middle income 80-120%
1,660 Higher income >120%

5-year region-wide production target

Source: ACS, ESRI, HUD

	Rent				*Own*				
Maximum monthly housing cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	44	43	24	7	114	112	63	17	
$521	29	32	19	5	74	83	50	12	
$729	38	47	31	7	98	122	78	19	
$1,042	64	88	70	20	164	226	181	53	
$1,563	71	104	106	36	182	266	274	94	
$2,083	25	47	68	31	66	121	175	79	<60% AMI
$3,125	27	61	111	75	70	157	285	193	60-80% AMI
$4,167	15	39	83	87	39	102	213	222	80-120% AMI
More than $4,167	16	45	98	140	41	114	251	359	>120% AMI

Notes:

- *.Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The region's Area Median Income (AMI) = $103,600 except Carroll, Grant, and Owen counties*

Recent **rental** development per bedroom size and cost segments in relation to the expected 5-year demand

Towne Creek Crossing, Boone County (LIHTC)

Three Springs Apartments, Kenton County (LIHTC)

Max rental cost	1BR	2BR	3BR	4BR+
$313	44	43	24	7
$521	29	32	19	5
$729	38	47	31	7
$1,042	64	88	70	20
$1,563	71	104	106	36
$2,083	25	47	68	31
$3,125	27	61	111	75
$4,167	15	39	83	87
>$4,167	16	45	98	140

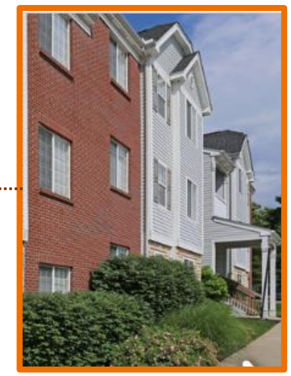
<60% AMI

60-80% AMI

80-120% AMI

>120% AMI

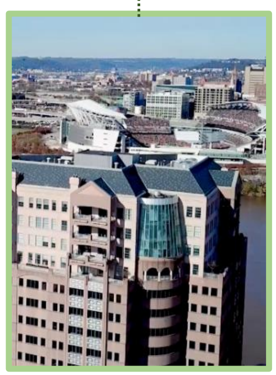
200 Mar Kim, Grant County



Sanctuary Place, Boone County

Renovated Historic Mixed Use, Kenton County

Riverhaus Apartments Kenton County



50 Madison Place Kenton County

The Manhattan on the River, Campbell County

Recent **ownership** development per bedroom size and cost segments in relation to the expected 5-year demand

Manufactured housing, Carroll County

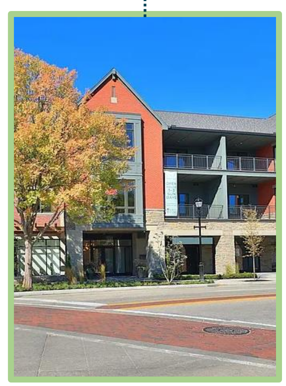
Barley Circle, Grant County

Max monthly cost to own	1BR	2BR	3BR	4BR+	
$313	114	112	63	17	
$521	74	83	50	12	
$729	98	122	78	19	
$1,042	164	226	181	53	
$1,563	182	266	274	94	
$2,083	66	121	175	79	<60% AMI
$3,125	70	157	285	193	60-80% AMI
$4,167	39	102	213	222	80-120% AMI
>$4,167	41	114	251	359	>120% AMI

3845 Sonata Dr, Union, Boone County

Traemore Gardens, Boone County

Preston at Plantation Pointe, Boone County



Highland Avenue, Fort Thomas, Campbell County

Housing Ties to Economic and Workforce Development

The NKADD region needs to build 6,650 housing units to support economic development in the next 5 years, which equates to 1,330 units per year. This 5-year production target breaks down in the following ways:

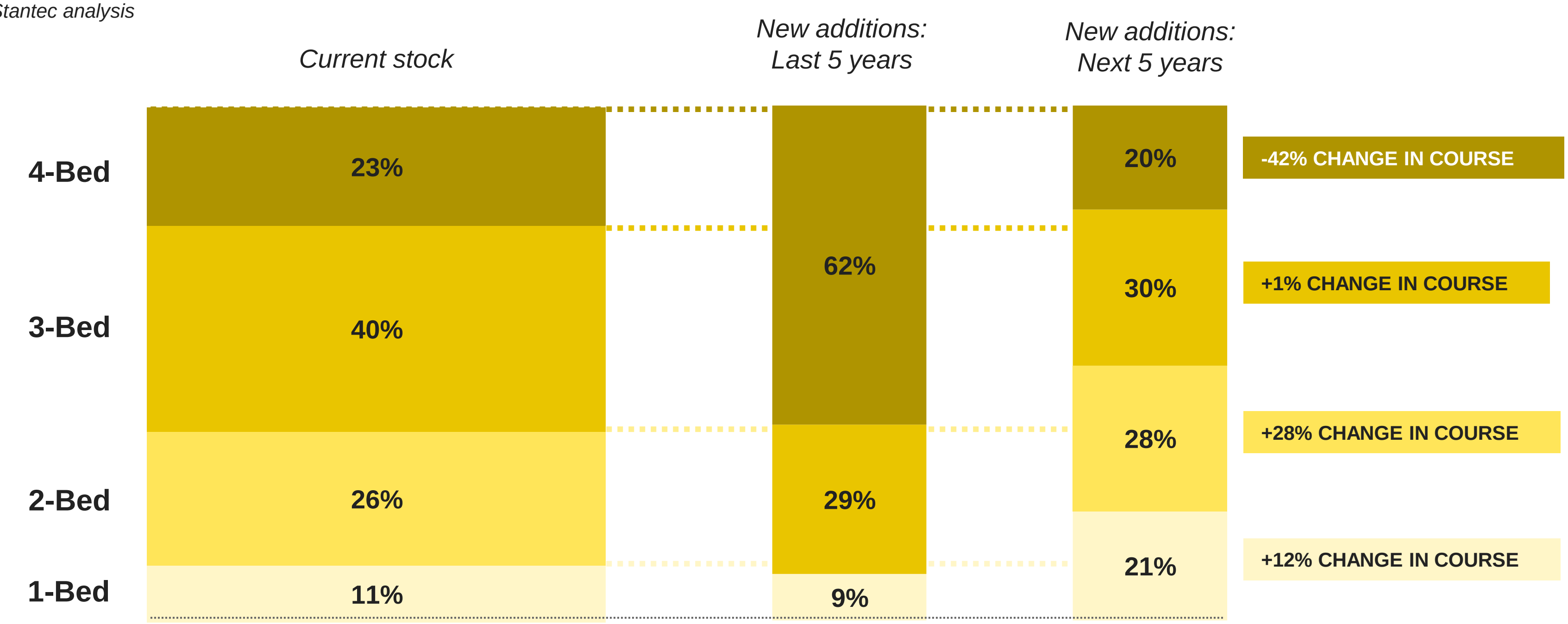
- **3,260 units for workforce households** (wage range $15 - $25, monthly housing costs $500 - $1,500), including 1,860 1- and 2-bedroom units, to increase the region's economic development and employment, including housing that is attainable by prevailing wage-earners in new jobs centers.
- **500 units for very low-income households** (monthly housing costs below $320)
- **4,220 one- and two-bedroom units**, reflecting a shift in demographics and preferences away from the three- and four-bedroom single family houses that have been the primary mode of production for the past 20 years.

Future development should steer towards smaller units and away from 4+ bedroom houses

This course correction brings future development more in line with the overall current housing stock and is a shift away from the last 5 years of development practice

Current stock of housing by number of bedrooms, development in last 5 years, & recommended development for next 5 years

Source: ACS, Stantec analysis

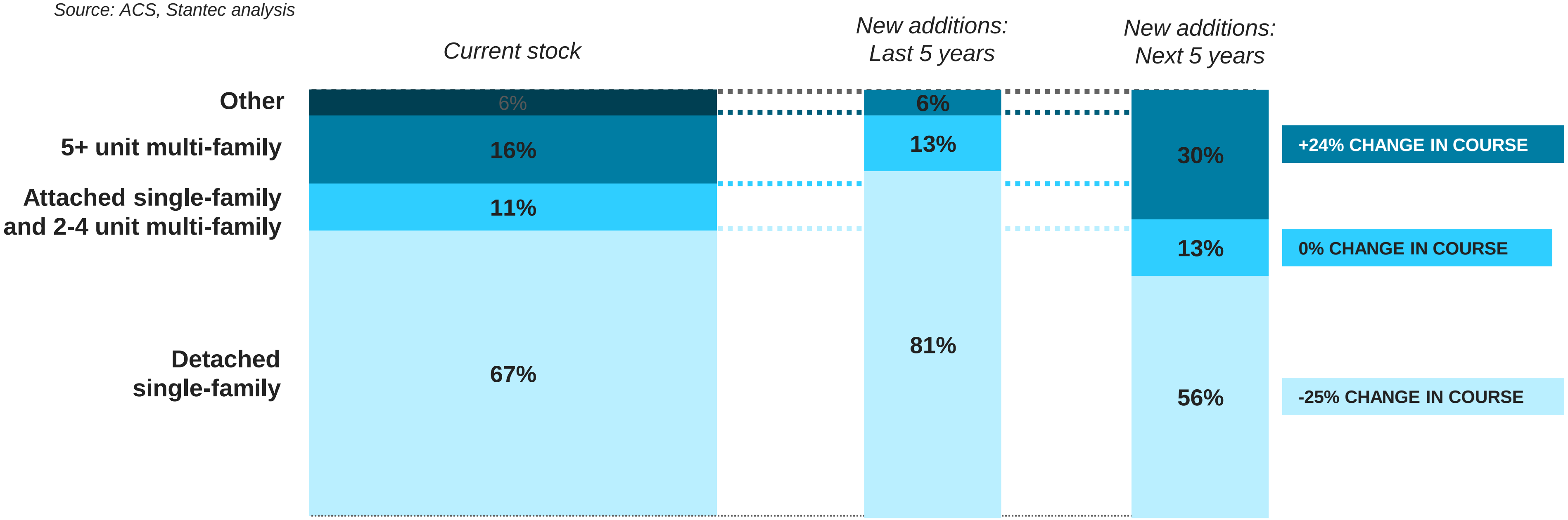


Future development should steer towards multifamily and away from detached single-family

This course correction adjusts for the shortfall of multifamily development in the last 5 years.

Current stock of housing by structure type, development in last 5 years, and recommended development for next 5 years

Source: ACS, Stantec analysis

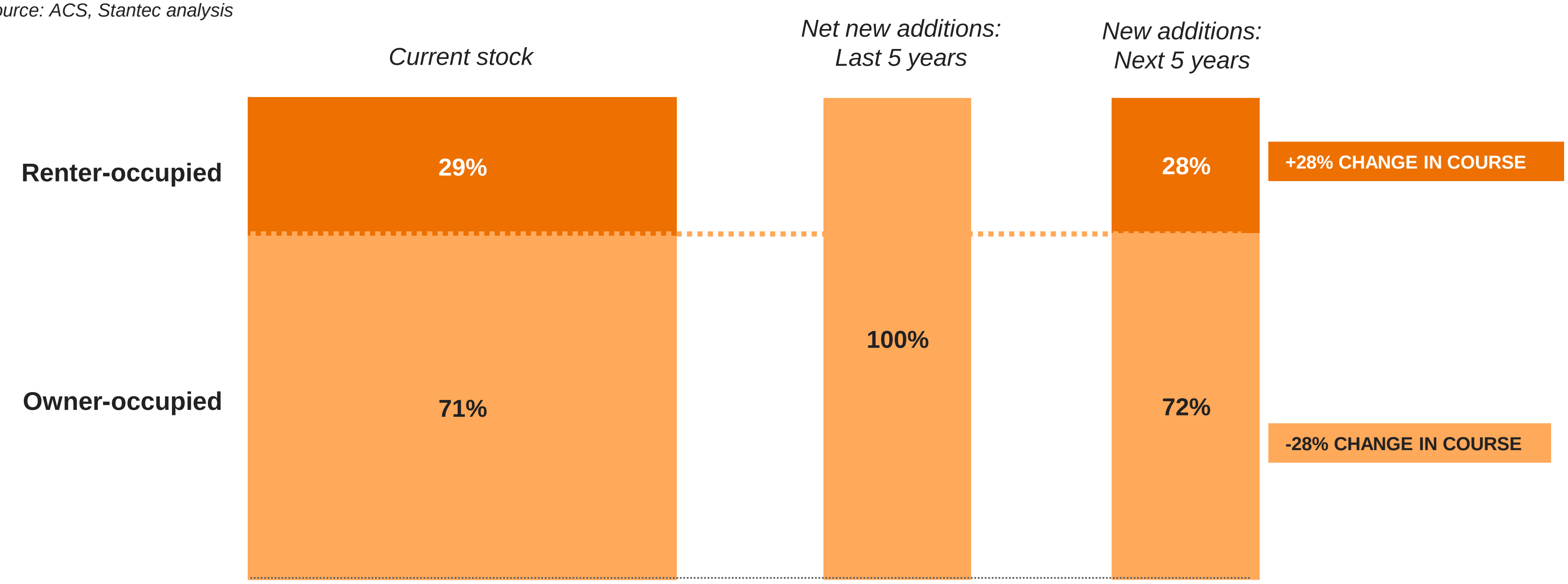


Rental properties should account for a larger portion of future development

This course correction adjusts for the shortfall of net new multifamily rental development in the last 5 years. While some new rental has been built, rental housing has also been lost in Newport, Covington City Heights, conversions to single-family ownership in Bellevue and other locations, as well as rentals converted to short term rentals.

Current stock of housing by tenure type, net new development in last 5 years, & recommended development for next 5 years

Source: ACS, Stantec analysis

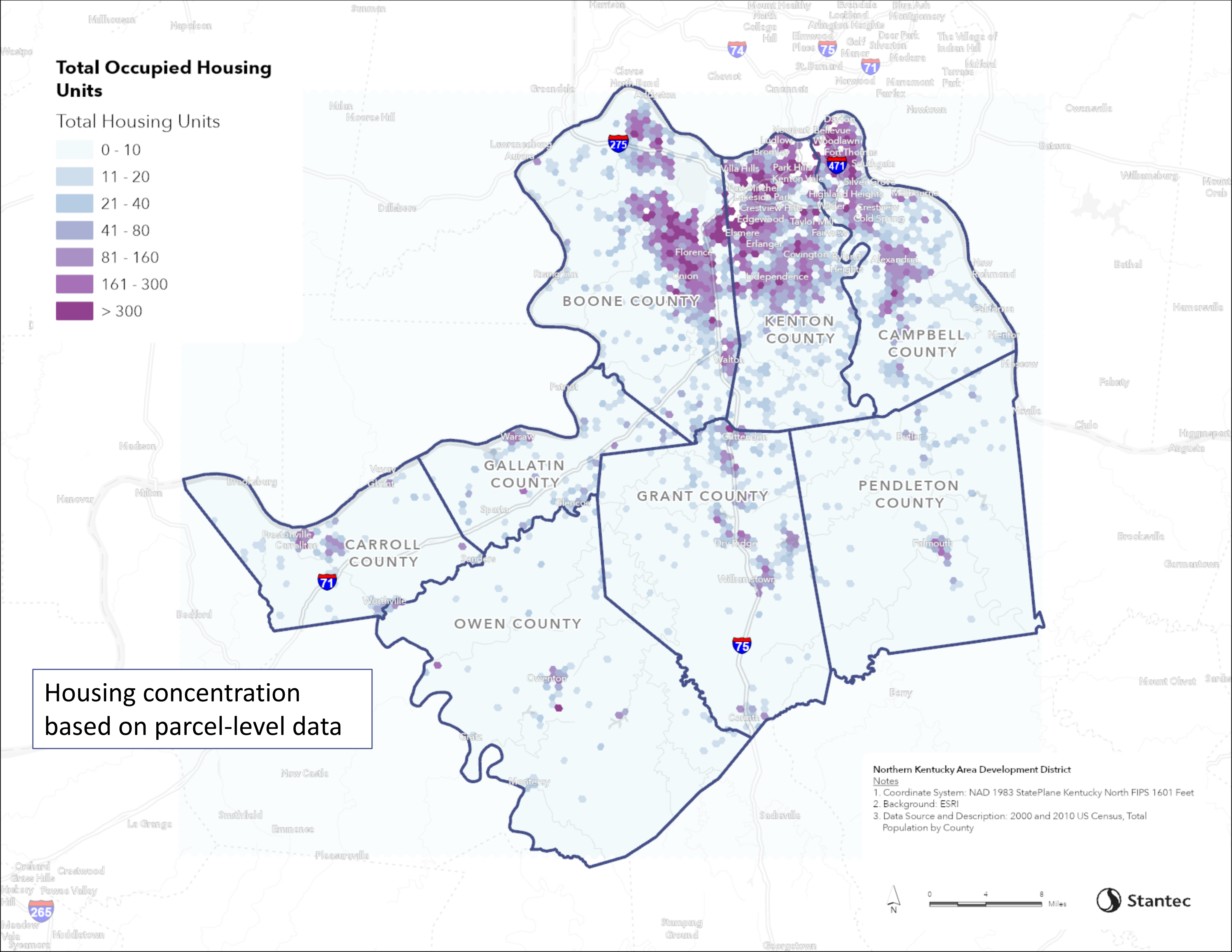


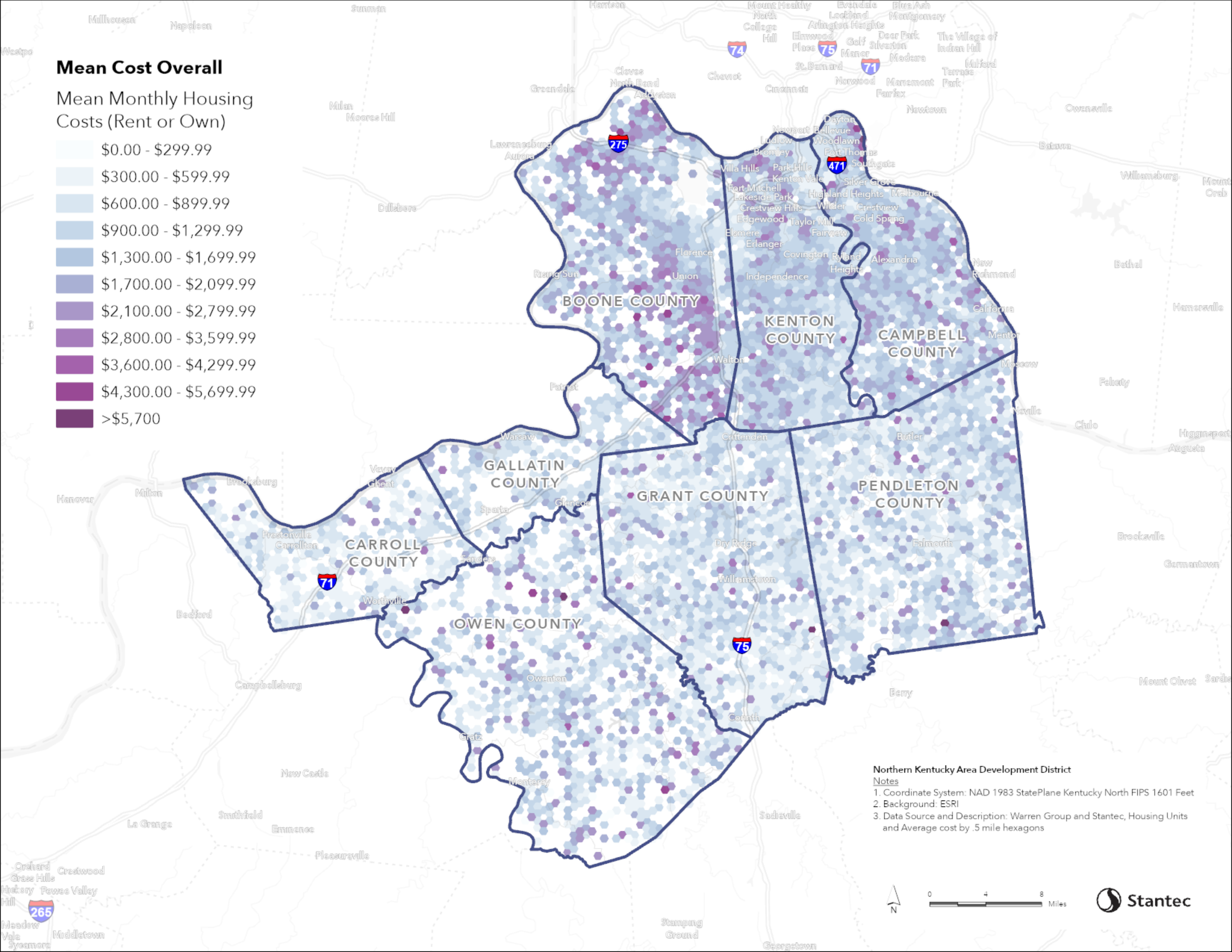
Housing objectives to inform strategies

1. In the next 5 years, add **3,260 units for low- and moderate-incomes (monthly housing costs $500 - $1,500)**, including 1,860 1- and 2-bedroom units, to increase the region's economic development and employment, including housing that is attainable by prevailing wage-earners in new jobs centers.
2. In the next 5 years, add **500 units for very low-income households** (monthly housing costs below $320).
3. Create new housing in **walkable, mixed-use centers** near services and employment.
4. Increase **regional coordination** to collocate jobs and housing, access federal funds, and create a pathway for transit-oriented development
5. Preserve the **existing naturally occurring affordable housing** stock.

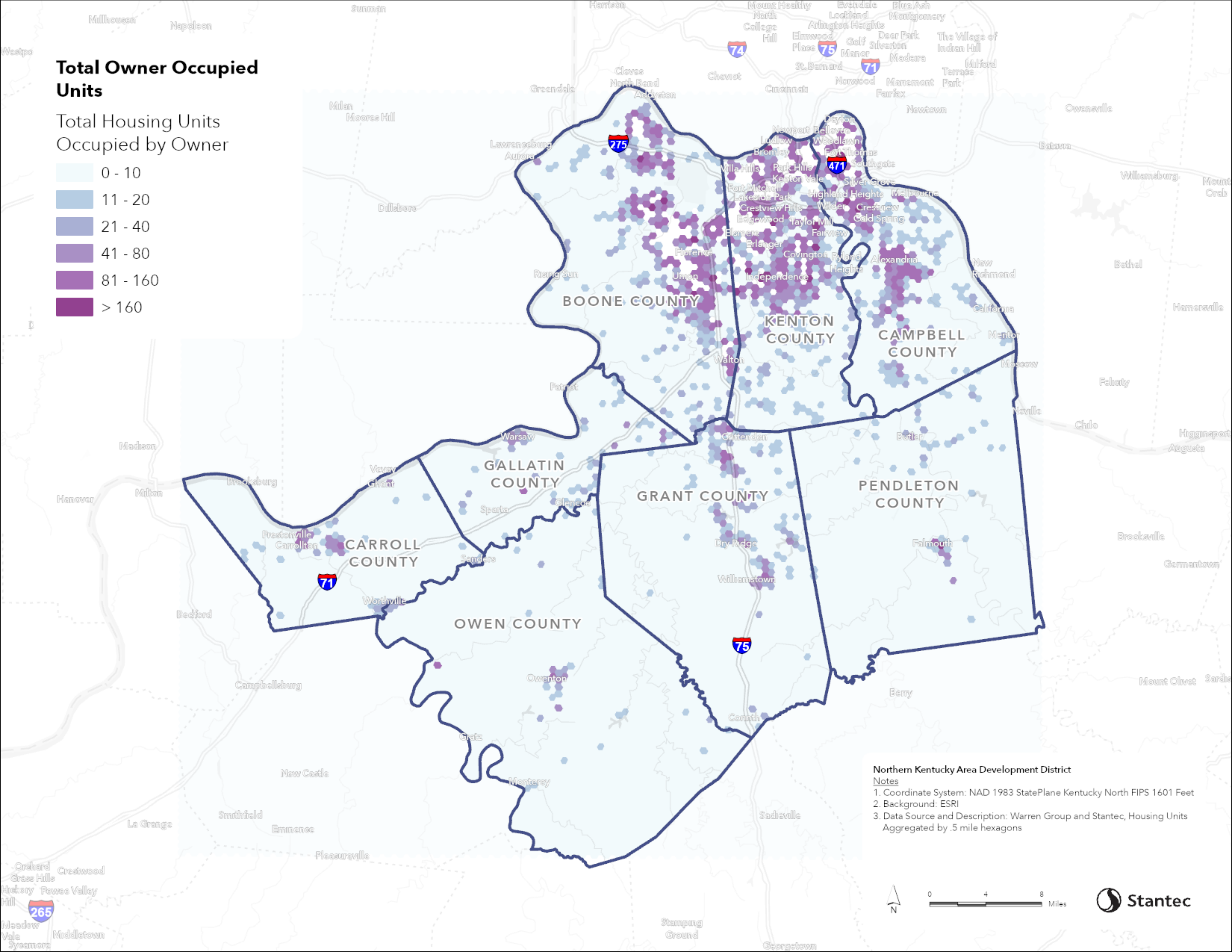
50-100 W Rivercenter Blvd - Madison Place
Covington, KY 41011 - Downtown Covington Submarket
187 market rate units, built 2020

101 E 4th St - Academy on Fourth
Newport, KY 41071 - Campbell County Submarket
202 market rate units, built 2020

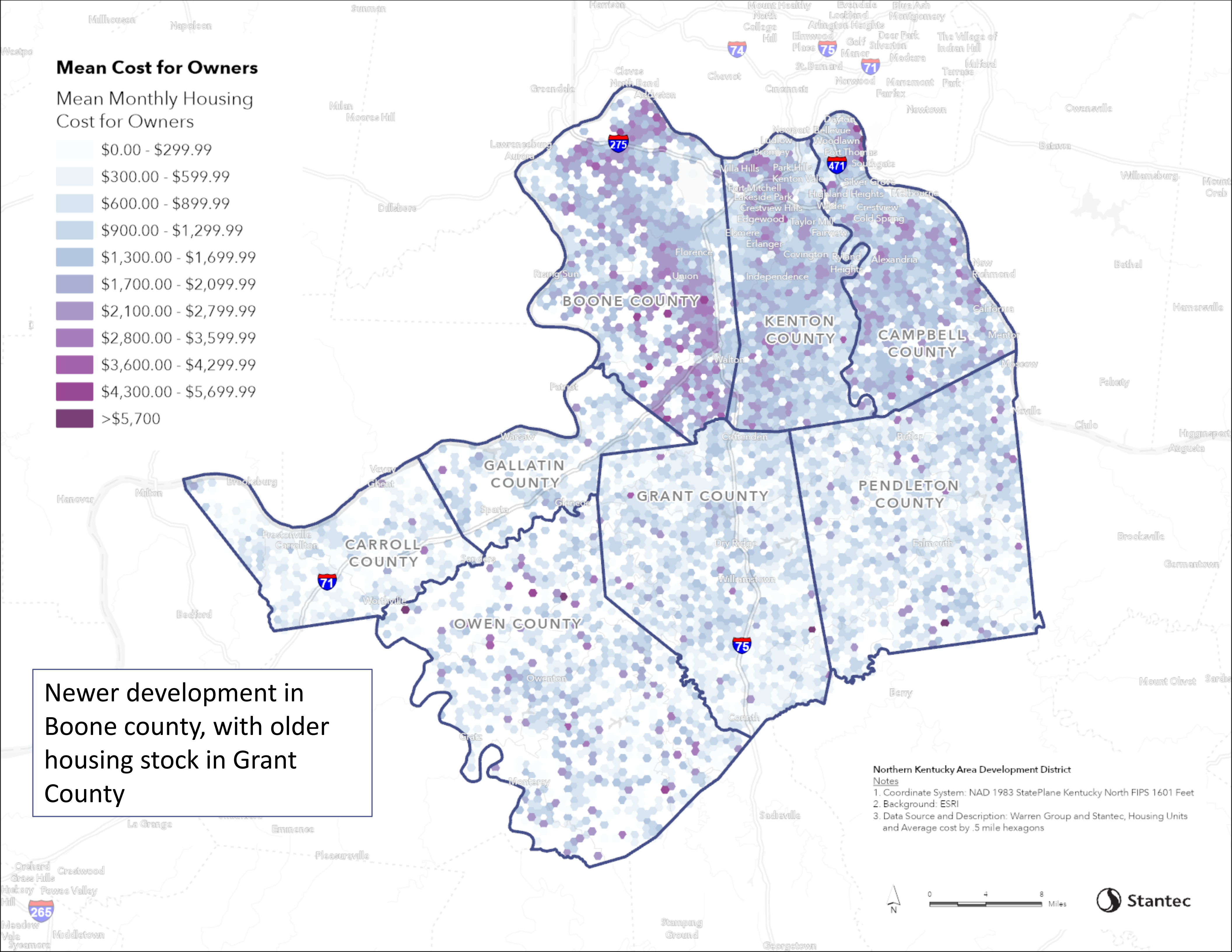

Total Occupied Housing Units
Total Housing Units
0 - 10
11 - 20
21 - 40
41 - 80
81 - 160
161 - 300
> 300
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Housing concentration based on parcel-level data
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2000 and 2010 US Census, Total Population by County
0 4 8 Miles
N
Stantec

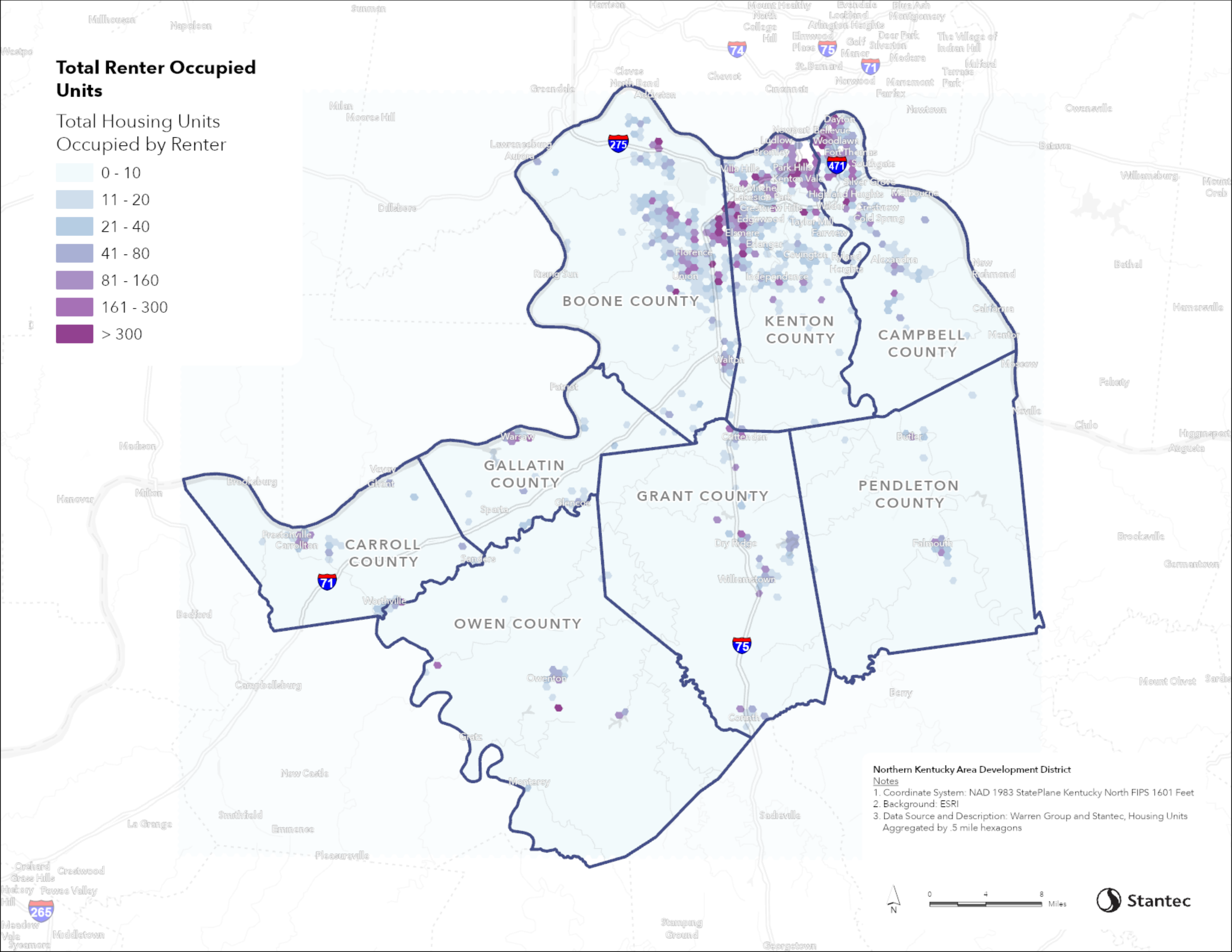


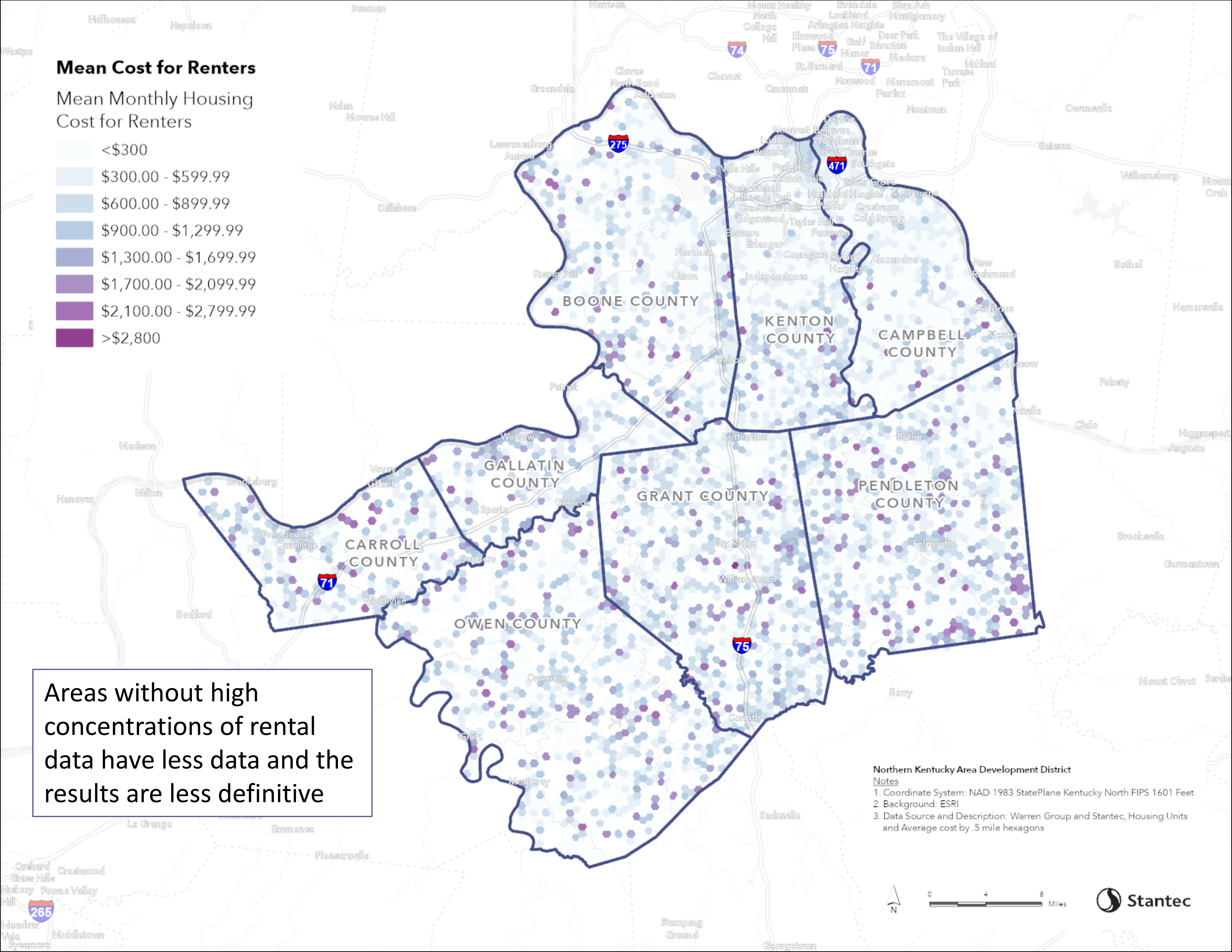
Mean Cost Overall
Mean Monthly Housing Costs (Rent or Own)
$0.00 - $299.99
$300.00 - $599.99
$600.00 - $899.99
$900.00 - $1,299.99
$1,300.00 - $1,699.99
$1,700.00 - $2,099.99
$2,100.00 - $2,799.99
$2,800.00 - $3,599.99
$3,600.00 - $4,299.99
$4,300.00 - $5,699.99
>$5,700
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Warren Group and Stantec, Housing Units and Average cost by .5 mile hexagons
N
0 4 8 Miles
Stantec



Total Owner Occupied Units
Total Housing Units Occupied by Owner
0 - 10
11 - 20
21 - 40
41 - 80
81 - 160
> 160
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Warren Group and Stantec, Housing Units Aggregated by .5 mile hexagons
0 4 8 Miles
N
Stantec


Mean Cost for Owners
Mean Monthly Housing Cost for Owners
$0.00 - $299.99
$300.00 - $599.99
$600.00 - $899.99
$900.00 - $1,299.99
$1,300.00 - $1,699.99
$1,700.00 - $2,099.99
$2,100.00 - $2,799.99
$2,800.00 - $3,599.99
$3,600.00 - $4,299.99
$4,300.00 - $5,699.99
>$5,700
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Newer development in Boone county, with older housing stock in Grant County
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Warren Group and Stantec, Housing Units and Average cost by .5 mile hexagons
0 4 8
Miles
N
Stantec


Total Renter Occupied Units
Total Housing Units Occupied by Renter
0 - 10
11 - 20
21 - 40
41 - 80
81 - 160
161 - 300
> 300
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Warren Group and Stantec, Housing Units Aggregated by .5 mile hexagons
N
0
4
8
Miles
Stantec


Mean Cost for Renters
Mean Monthly Housing Cost for Renters
<$300
$300.00 - $599.99
$600.00 - $899.99
$900.00 - $1,299.99
$1,300.00 - $1,699.99
$1,700.00 - $2,099.99
$2,100.00 - $2,799.99
>$2,800
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
CARROLL COUNTY
GRANT COUNTY
PENDLETON COUNTY
OWEN COUNTY
275
471
71
75
74
265
Areas without high concentrations of rental data have less data and the results are less definitive
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Warren Group and Stantec, Housing Units and Average cost by .5 mile hexagons
N
0
4
8
Miles
Stantec

Regional Housing Strategies

Housing supply is impacted by several drivers, and can be influenced by targeted strategies

Housing production drivers

Expected investment returns
- Financial return benefits
- Hard/soft costs
- Regulatory costs
- Land costs
- Financing costs

Regulations
- State regulations
- Zoning rules
- Approval processes
- Govt staff capacity
- Political support

Execution
- Available developers
- Available construction firms
- Available supplies
- Skilled labor

subtract…

Housing unit leakage drivers

Conversion of housing stock
- Conversions to seasonal homes, short-term rentals (i.e. Airbnb)
- Conversion to non-residential uses

Loss of housing stock
- Condemned housing stock requiring demolition

Under-used housing stock
- Fewer inhabitants than capacity allows (i.e. couples in 4-bed homes)
- Repairable housing that requires investment to be habitable

Total supply of housing units

NKADD has some of the least restrictive development regulations in the country…

… but, there are still some actions that can be taken to improve housing production where needed that are covered in the housing toolkit.

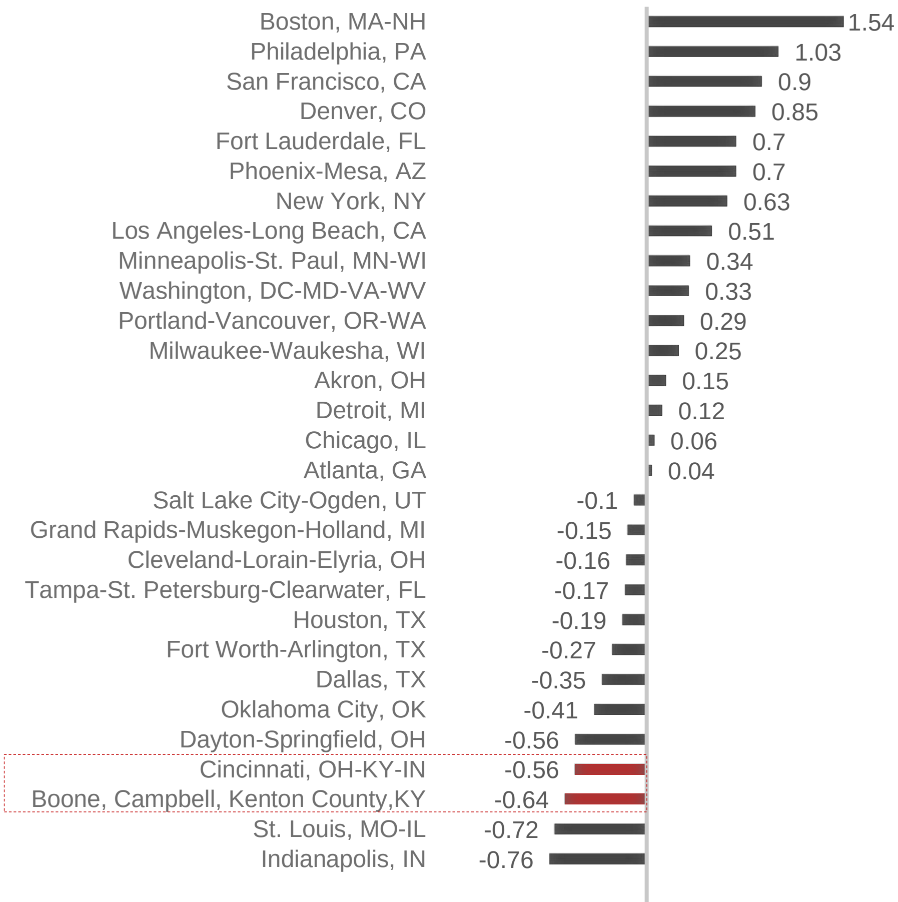
WRLURI index created as a composite of 12 sub-indexes which measure survey responses to various questions, such as caps on production / permitting, housing restrictions, outcomes, etc.

According to WRLURI, lightly regulated areas like NKADD have the following characteristics:

- Moderate levels of involvement by local political officials.
- Lower levels of community pressure
- Fewer reviewing bodies for projects that do not require zoning changes
- There are likely dimensional standards that prevent higher density development but no formal cap on residential density
- Less exaction fees than other areas
- An average 3.7-month delay between project application and receiving a decision from the government (versus more than 8 months in highly regulated areas)

Local housing regulation index, high numbers are more restrictive

Source: Wharton Residential Land-Use Regulatory Index 2020



Types of strategies

Types
- Financing: New forms of direct investment. Financing can be free to participating jurisdictions ($0), low-cost ($), mid-cost ($$), or high cost ($$$)
- Regulation: Changing how government establishes policies and interfaces with builders
- Non-profit and community-led: Actions that can be taken without government intervention

Scale of jurisdiction or responsible party
- Federal
- Regional
- County
- Municipal
- Local Housing Authority
- Non-profit Developer
- Neighborhood

Housing type target for the strategy
- All housing production
- Market rate housing
- Naturally occurring affordable housing
- Subsidized affordable housing

Strategies and Top Priorities

Financing strategies
- Expand Regional HUD HOME Funding Consortium
- LIHTC for qualified Census tracts for low-income housing
- Property tax abatement or exemptions for affordable housing
- Dedicating publicly owned land for affordable housing
- Housing bond funds for affordable housing
- Tax Increment Financing (TIF) for Mixed-Use Redevelopment
- Kentucky's Affordable Housing Trust Fund (AHTF)
- Home Repair Program
- Home accessibility modification program
- Property tax relief for income-qualified homeowners
- Foreclosure prevention program

Regulatory strategies
- Accessory Dwelling Units (ADUs) zoning by right
- Inclusionary zoning and development bonuses
- Reduce regulatory burden on development
- Update building codes for missing middle housing production
- Recommend a Housing Element in Comprehensive Plan updates
- Allow mixed-use with commercial ground floors
- Tenant notification requirement
- Equitable transit-oriented development (ETOD)

Non-profit and community-led strategies
- Community Land Trust (CLT)
- Land Bank

Strategy Toolkit Top Priority

Regional HUD HOME Funding Consortium

The HOME Investment Partnerships Program (HOME) provides formula grants to states and localities that communities use - often in partnership with local nonprofit groups - to fund a wide range of activities including building, buying, and/or rehabilitating affordable housing for rent or homeownership or providing direct rental assistance to low-income people. HOME is the largest federal block grant to state and local governments designed exclusively to create affordable housing for low-income households. HOME funds are awarded annually as formula grants to participating jurisdictions.

Forming a consortium is a way for local governments that would not otherwise qualify for funding to join with other contiguous units of local government to directly participate in the HOME Investment Partnerships Program (HOME) program. HUD is supportive of regions taking a regional, collaborative approach to meeting their affordable housing needs.

For FY 2023, the Northern Kentucky Consortium (including Bellevue, Covington, Dayton, Ludlow, Newport, and recently added Florence) is the only HOME Consortium in Kentucky. Other states have multiple large HUD consortia. While Lexington and Louisville are large enough to receive HOME funds directly, a consortium of the tri-county area of Boone, Kenton, and Campbell would increase the HOME fund allocation.

Type	Financing ($0)
Jurisdiction	Regional
Target	Subsidized affordable housing
Example	HUD HOME Consortia information

Image credit: HUD

Strategy Toolkit Top Priority

LIHTC for qualified Census tracts with Kentucky Housing Credit Program

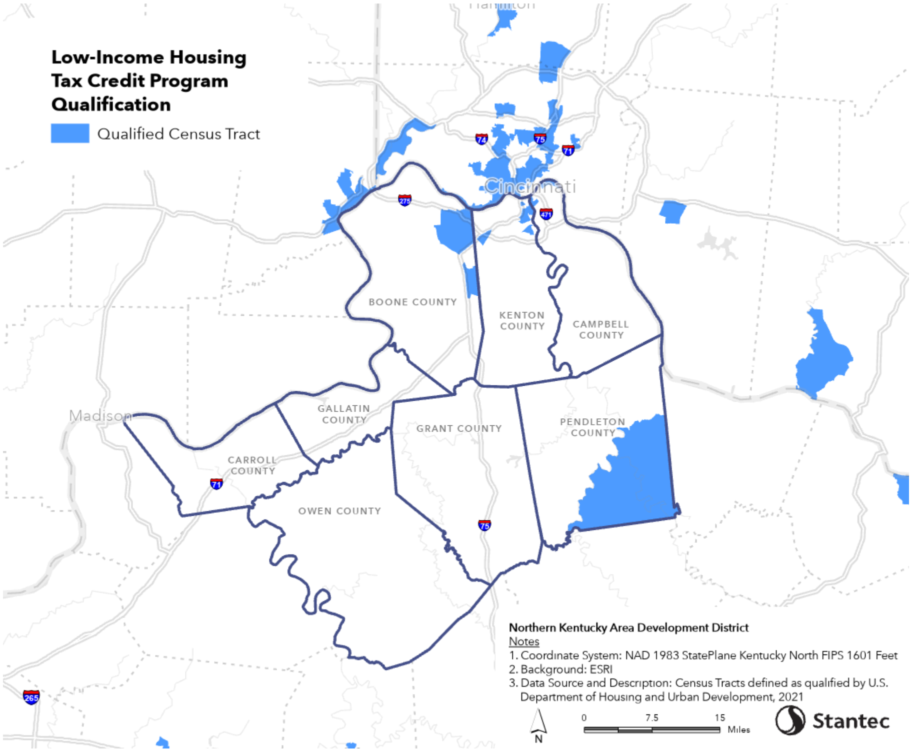
The Low-Income Housing Tax Credit (LIHTC), established under the Tax Reform Act of 1986, is the largest source of federal assistance for developing affordable rental housing and has financed about 2.9 million rental units. LIHTCs encourage private-equity investment in low-income housing through tax credits administered by the Internal Revenue Service (IRS) and allocating agencies—typically state or local housing finance agencies established to meet affordable housing needs.

LIHTC is one of the most important programs for closing the financing gap for low-income housing (<60% AMI), of which NKADD is expect to require 3,260 additional units in the next 5 years.

LIHTC funding is distributed by the Kentucky Housing Credit (KHC) Program. Previous recipients of LIHTC and other programs are available on their website. Since 2008, the program has funded 3,007 new units in NKADD and provided a total of $232,756,942 in different funding streams, including LIHTC, HOME, AHTF, and Tax Exempt Bond monies.

NKADD and its members should be sure to coordinate with the Kentucky Housing Credit Program to ensure that the region is not leaving any money on the table. NKADD could tap a local grant syndicator for this purpose. More details about KHC's multifamily program guidelines can be found here.

Type	Financing ($0)
Jurisdiction	State with County or Municipal
Target	Low-income housing (<60% AMI)
Example	Kentucky Housing Credit Program Recipients



Strategy Toolkit Top Priority

Property tax abatement or exemptions for affordable housing

Jurisdictions offer property tax incentives to developers, building owners, and owner occupants who create or preserve affordable housing. Property tax abatements directly reduce the amount of taxes owed for a specified period, and can be offered as an incentive to encourage the construction or rehabilitation of buildings that include a share of or all affordable units. Property tax exemptions reduce the property's assessed value or rate of taxation, thereby resulting in a lower tax bill. Exemptions are commonly offered to encourage rental property owners to make upgrades that improve the condition of lower-cost units. The increased value resulting from the upgrades is excluded from property tax calculations for a defined period.

Cincinnati, OH's Residential Community Reinvestment Area Tax Abatement Program allows residential property owners to pay taxes on the pre-improvement value of their property for 10-15 years, available for any increased valuation that results from improvements to the property due to new construction or renovation. The program goals include stimulating community revitalization by attracting homeowners and retaining current residents by reducing development costs.

Type	Financing ($)
Jurisdiction	Regional or Municipal
Target	Subsidized affordable housing
Example	Cincinnati, OH

Image credit: City of Cincinnati

Strategy Toolkit Top Priority

Dedicating publicly owned land for affordable housing

Especially in areas with relatively high land costs and/or few development sites available, offering publicly owned land for affordable housing development creates an opportunity to increase the affordable housing supply where market forces otherwise challenge such production. In this model, municipalities offer vacant, underutilized, or otherwise surplus property to developers who agree to build all affordable or mixed-income housing on the site. The municipality may reduce the price of the land (or grant it at no cost) to close the financing gap a conventional affordable housing development would otherwise face locally.

Because land costs constitute between 10-20% of a typical multifamily housing development, granting the land at a reduced cost – or at no cost – effectively represents a significant subsidy that can allow the developer to add a substantial affordability component while preserving a housing development project's feasibility.

Type	Financing ($$)
Jurisdiction	County or Municipal
Target	Subsidized affordable housing
Examples	Local Housing Solutions

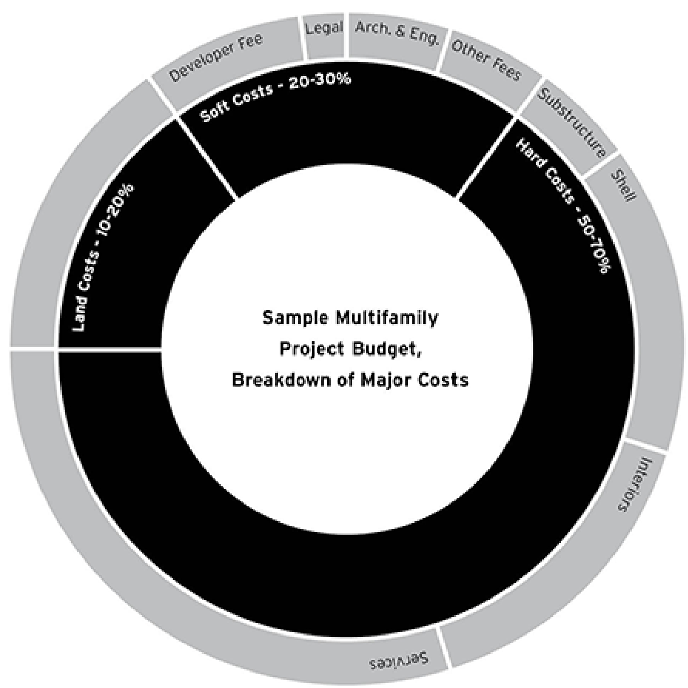


Image credit: Harvard Joint Center for Housing Studies

Strategy Toolkit Top Priority

Housing bond funds, trust fund, or general revenue funds for affordable housing

Local funding programs are often used to close the gap in financing. These programs can be funded by bonds, multi-jurisdiction trust funds, and/or general revenue funds. Fund managers can establish criteria for funding awards, such as levels of affordability and tenure. The funds can also be used to foster non-profit housing developers.

The Louisville Metro Affordable Housing Trust Fund (LAHTF) was created by Metro Council as a way for Louisville to invest additional local public funds to address the affordable housing shortage. In June 2022, Louisville Metro Government allocated $10 million in funds for the LAHTF that was earmarked for <50% AMI housing, their Revolving Loan Fund, and program administration.

Type	Financing ($$$)
Jurisdiction	County or Municipal
Target	Subsidized affordable housing
Examples	Affordable Housing Development Funding, LAHTF

Image credit: Louisville Affordable Housing Trust Fund

Strategy Toolkit Top Priority

Tax Increment Financing (TIF) for Mixed-Use Redevelopment in Blighted Urban Areas

Tax Increment Financing (TIF) is an economic development tool to use future gains in taxes to finance the current public infrastructure improvements for development that will create those gains, with a focus on district-scale projects in Kentucky. The state participates with local governments and eligible agencies in three TIF programs.

The State has established required conditions for TIF, the most relevant of which is Mixed-Use Redevelopment in Blighted Urban Areas. The identified project must represent new economic activity for the Commonwealth, include pedestrian amenities and public space, and include some level of retail, residential, office, restaurant, and hospitality.

A signature project of this scale could account for a significant portion of the expected housing needs.

The governing body in the jurisdiction can take proactive steps to obtain property, create a master plan, conduct a competitive disposition process with a master developer, rezone, and generally operate a public-private partnership to ensure that the result is in line with community needs.

Type	Financing ($0)
Jurisdiction	State with County or Municipal
Target	Mixed-income housing
Example	Kentucky.gov

Image credit: Marydale TIF, Florence County

Strategy Toolkit

Kentucky's Affordable Housing Trust Fund (AHTF)

The AHTF was established in 1992 by the Kentucky General Assembly to address the critical housing needs of very low-income Kentuckians, including the mentally and physically disabled and those on the verge of homelessness. The competitive fund supports projects that assist persons at or below 60 percent of the area median income or 60 percent of Kentucky's State Median Family Income, with a preference to help persons at or below 30 percent of the area median income.

AHTF funds are intended for multifamily developments and the properties must be deed restricted for 30 years to ensure the continued affordability of the units.

Organizations that are eligible to apply for funding from the AHTF include local governments, local government housing authorities, nonprofit organizations, and regional or statewide housing assistance organizations. AHTF funds can be spent on matching funds for non-KHC federal housing dollars requiring a state or local match; construction, rehabilitation, or acquisition of very low-income rental housing units; permanent financing; down payment and closing costs; site development; rehabilitation (homeowner); and construction financing.

Type	Financing ($0)
Jurisdiction	County, Municipal, Non-profits, Local housing authority
Target	Subsidized affordable housing
Example	Kyhousing.org

Strategy Toolkit

Home repair program

Often, the most capital-efficient way to promote housing affordability is to help lower-income people maintain their existing housing arrangement and mitigate displacement pressure. Necessary home repair and renovation projects have the potential to strain household finances and could lead to excessive debt burden if financed conventionally or housing and quality of life deterioration if deferred altogether. There are several federal and state programs that support certain types of home improvement, such as energy efficiency upgrades. Complementary municipal and other local programs can support the wide variety of improvements otherwise not covered by these larger programs, such as routine plumbing, electrical, HVAC, or roofing/envelope projects.

These programs are often structured as low- or no-interest loans offered to qualifying homeowners and landlords. In many cases, the typical applicant needs less than $20k in assistance to complete significant projects that can effectively extend a low-income resident's tenure in their current home for years.

The Kentucky Affordable Housing Trust Fund offers home repair assistance for homeowners earning below 60% AMI.

Type	Financing ($)
Jurisdiction	County or Municipal
Target	Naturally occurring affordable housing
Example	Joint Center for Housing Studies

Image credit: Housing Development Alliance

Strategy Toolkit

Home accessibility modification program

Helping seniors age in place in their homes promotes affordability and quality of life by delaying the need to move to expensive assisted living facilities and maintaining local social and community ties. In many cases, a housing unit can be made significantly more accessible for a senior occupant with just a few strategic and low-cost retrofits, extending their ability to live there for several more years. These include modifications such as handrails along front steps, grab bars in the bathroom, widened doorways, interior and exterior ramps, and upgraded door and kitchen hardware.

Retrofit projects could be administered numerous ways, from seasonal volunteer drives to more formalized home assessment and small grant programs managed by municipal, healthcare, or non-profit entities.

Type	Financing ($)
Jurisdiction	County or Municipal
Target	Naturally occurring affordable housing
Example	CICOA “Safe at Home” program

Image credit: CICOA

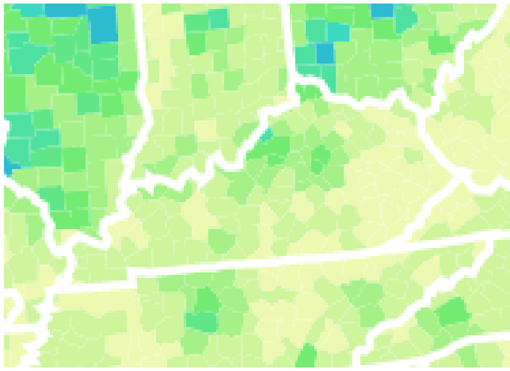
Strategy Toolkit

Property tax relief for income-qualified homeowners

Low- or fixed-income homeowners can experience displacement pressure from a property tax burden that grows faster than their ability to pay, such as when driven by quickly rising local property values. Municipalities can mitigate this threat to homeowner stability by linking tax liability to household income.

While all homeowners would continue to pay taxes, those at lower incomes could qualify for lower payment obligations that is capped at a certain percentage of their income. For example, some communities limit the tax payment to no more than 9 or 10% of a household's income (ex. Maryland and Boston, MA). In some cases, the state reimburses municipalities for potential tax revenue forgone to the program (ex. Connecticut).

Type	Financing ($)
Jurisdiction	County or Municipal
Target	Naturally occurring affordable housing
Examples	Local Housing Solutions



Median Property Taxes Paid by County, 2019 (5-year estimate)

Image credit: taxfoundation.org

Strategy Toolkit

Foreclosure prevention program

Foreclosures can create devastating financial and social consequences for households – and geographic concentrations of foreclosure can destabilize neighborhoods and lead to blight and other economic and community issues. In many cases, a household's foreclosure is triggered by a short-term challenge that could be overcome with modest support at the right time. Foreclosure prevention programs can draw on a variety of financing and service strategies to help the homeowner overcome these challenges and avoid losing their home.

For example, some programs offer legal and financial counseling to help homeowners keep their mortgages through renegotiation or creative budgeting. No-interest loans or grants help struggling homeowners make mortgage and tax payments during periods of financial hardship. In Boston, Blue Hub Capital will purchase the property from a homeowner before they reach foreclosure and then sell it back to them at a more manageable price and interest rate.

Type	Financing ($)
Jurisdiction	County or Municipal
Target	Naturally occurring affordable housing
Examples	Local Housing Solutions

Image credit: HUD

Strategy Toolkit Top Priority

Accessory Dwelling Units (ADUs) zoning by right

An accessory dwelling unit (ADU) is a smaller, independent residential dwelling unit located on the same lot as a stand-alone (i.e., detached) single-family home. ADUs go by many different names throughout the U.S., including accessory apartments, secondary suites, and granny flats. ADUs can be converted portions of existing homes (i.e., internal ADUs), additions to new or existing homes (i.e., attached ADUs), or new stand-alone accessory structures or converted portions of existing stand-alone accessory structures (i.e., detached ADUs).

Many cities and counties permit ADUs by right, subject to use-specific standards. Common provisions include an owner-occupancy requirement (for one of the two dwellings), dimensional and design standards to ensure neighborhood compatibility, and off-street parking requirements. Other relatively common provisions include minimum lot sizes and limits on the number of occupants or bedrooms. While some codes also include occupancy restrictions that stipulate that ADUs can only house family members or domestic employees, this type of restriction can severely limit the potential for ADUs to address a shortage of rental housing.

ADUs are currently legal in parts of NKADD (i.e. Covington RR district), Louisville, and Lexington. Each jurisdiction should consider what districts would be appropriate for adding ADUs as an allowable use.

Type	Regulation
Jurisdiction	County or Municipal
Target	Market rate housing production, including rentals
Example	APA additional information

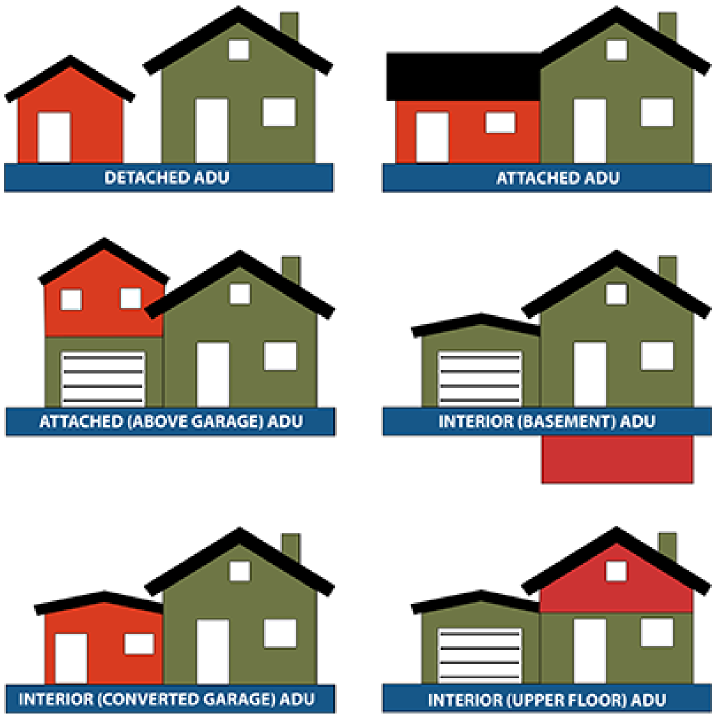


Image credit: APA

Strategy Toolkit Top Priority

Inclusionary zoning and development bonus programs

Inclusionary zoning (IZ), also known as inclusionary housing, refers to municipal and county zoning that requires a portion of larger developments to be affordable by households at certain levels of income, such as 60%, 80%, or even 120% AMI. IZ can be mandatory (i.e. 10-20% of units in developments with more than 20 dwellings) or voluntary (i.e. reward affordable units with density bonuses, parking minimum reduction, or tax abatement). IZ can help create mixed-income neighborhoods, add affordable units to market rate development, and increase ownership rates in low- and moderate-income segments. The drawback of IZ programs is an effective additional tax for carrying the affordable units on new market rate housing. But, this additional cost can be weighed against awards of density, reduced parking, and tax abatement.

Affordability Unlocked Development Bonus Program in Austin, TX waives site development standards and dimensional standards, including setback requirements, site coverage, height requirements, parking requirements, and compatibility standards for projects that meet affordability requirements.

Kentucky has state statutes prohibiting local rent control but there has not been litigation regarding whether that statute preempts inclusionary housing requirements for rental housing (source). Jefferson County proposed IZ in their Land Development Code Reform Phase 3, as described in the 2022 State of Metropolitan Housing Report.

Type	Regulation
Jurisdiction	State, County, or Municipal
Target	Subsidized affordable housing
Example	APA Inclusionary Housing information

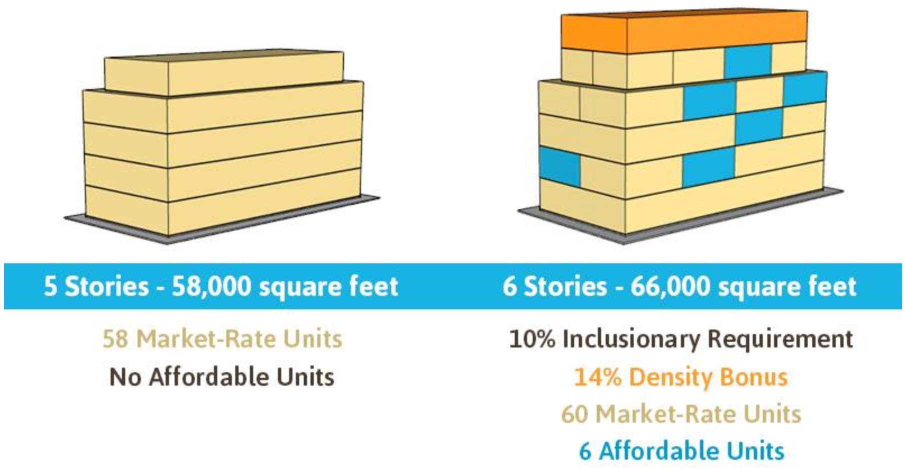


Image credit: Grounded Solutions Network

Strategy Toolkit Top Priority

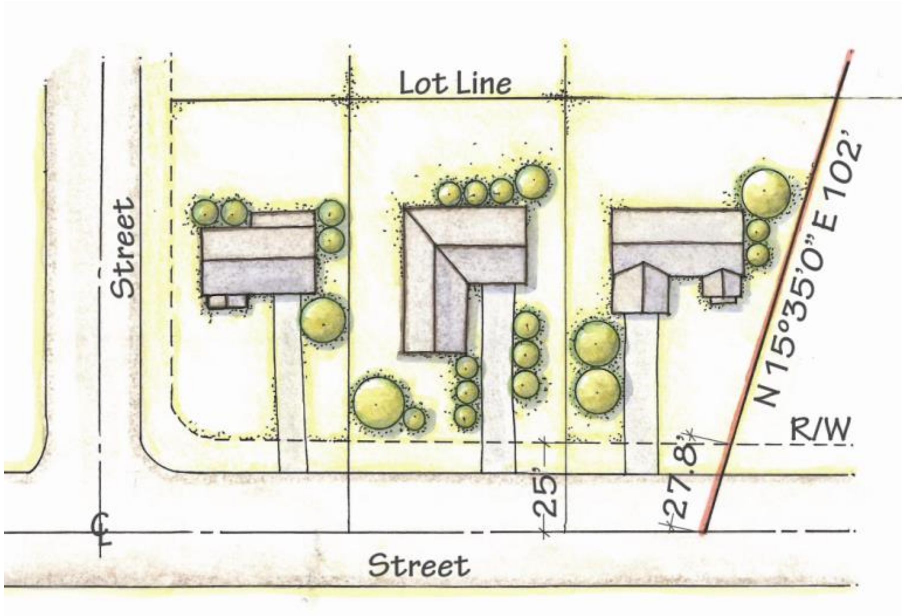
Reduce regulatory burden on development to reduce the cost of building

While NKADD generally has very low regulatory barriers to development when compared to other metropolitan areas in the country, builders interviewed in this process identified a number of regulatory changes that would reduce the cost of development and subsequently make more housing pencil out and at lower costs to renters and owners.

For affordable housing, Austin waives impact fees and provides dedicated staff in the development review department to guide development through the process to decrease time-to-market.

Two of the largest regulatory contributors are open space requirements (portions of land that cannot be developed) and mandatory setbacks for infrastructure easements (typically required in greenfield subdivision development). In downtown, walkable, or urban environments open space requirements can unnecessarily raise the price of land without creating substantial contributions to the public realm and should be kept to a minimum. The requirement for infrastructure easements should also be avoided by placing infrastructure within the right-of-way rather than on private property, including water, sewer, electrical, and natural gas. Other contributing factors include architectural standards.

Type	Regulation
Jurisdiction	County or Municipal
Target	All housing types
Example	Lean Urbanism, Austin SMART Housing



Typical mandatory infrastructure easement.
Image credit: Kenton County Subdivision Regulations

Strategy Toolkit Top Priority

Update building codes to facilitate missing middle housing production

To ensure their building codes do not create unreasonable barriers to new construction while still preserving safety, states and local jurisdictions may first wish to review their codes to identify unnecessary restrictions. The International Building Code defines many missing middle building types, such as triplexes and fourplexes, as commercial construction, because they cross over the three unit or more threshold defined in the code. Following this more restrictive code can often undermine the financial feasibility for a missing middle project, such as the requirement for sprinklers.

Memphis and Shelby County, TN reformed their building codes in November 2021 to enable the construction of missing middle housing. The International Building Code (IBC) and International Residential Code (IRC) were amended to apply the residential code and all subject provisions to structures of three to six dwelling units, which were previously reviewed under the commercial building code. This change makes it easier to build missing middle housing by reducing regulatory restrictions.

The Kentucky Building Codes are based on IBC and should be considered to for updating to allow for missing middle housing production.

Type	Regulation
Jurisdiction	State, County, or Municipal
Target	Market rate housing production for smaller units
Example	Memphis and Shelby County's amended building code

Image credit: Opticos Design

Strategy Toolkit Top Priority

Recommend a Housing Element in Comprehensive Plan updates

Countywide Comprehensive Plans are updated on a 5-year basis. According to state statute 100.187, housing is an optional element. Certain NKADD counties are adopting housing elements, like Kenton County, but it is not universal. NKADD should use this process as a starting point to get all counties in the region to consider housing in the next round of their comprehensive plan updates.

Type	Regulation
Jurisdiction	County
Example	Kenton County - Direction 2030 Housing Element

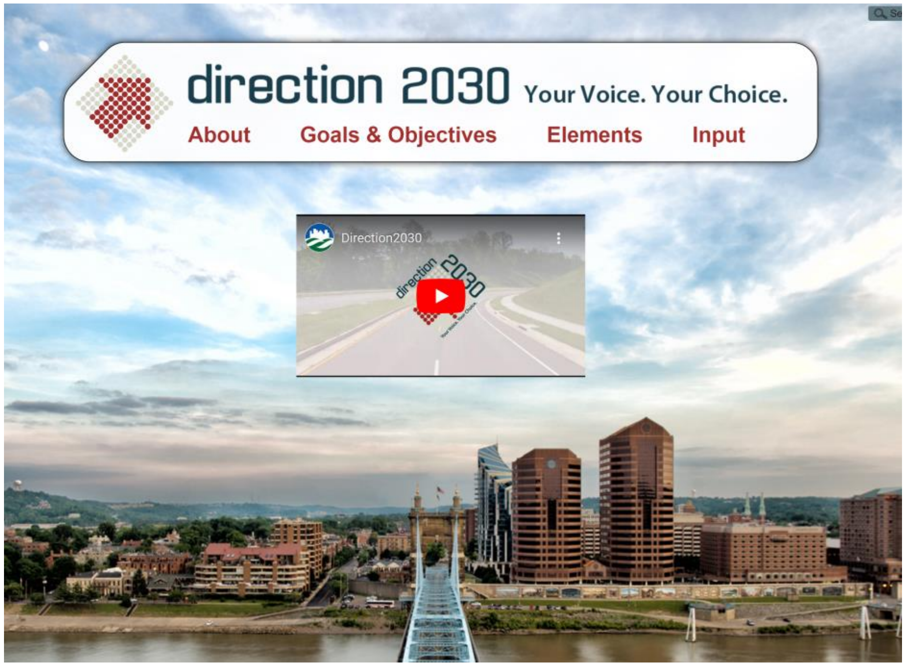


Image credit: Direction 2030

Strategy Toolkit

Allow mixed-use with commercial ground floors

Mixed-use redevelopment with commercial ground floors and residential upper stories allows for communities to continue providing amenities like grocery stores, retail, and personal services while expanding housing options, typically smaller units for rental or ownership. Jurisdictions should identify suitable walkable centers for rezoning that can create attractive places to live, visit, shop, and work. Collocation with other daily needs like employment and schools will also help reduce the traffic impact associated with adding residential uses on top of commercial uses. In order to make the redevelopment pencil out for developers, the rezoning requires 3-5 stories of residential above a single story of commercial.

In the context of NKADD, commercial corridors with single story retail and surface parking are appropriate targets for rezoning for mixed-use. Examples include Route 25 in Boone County, commercial areas on Route 27 in Campbell and Pendleton Counties, and Route 17 and Winston Ave in Kenton County.

Type	Regulation
Jurisdiction	County or Municipal
Target	Market rate housing production
Example	Bethesda Row, Maryland

Image credit: Federal Realty Investment Trust

Strategy Toolkit

Tenant notification requirement

When a multifamily rental property changes hands, the new owner may have the right to cancel or change existing residents' lease terms in a short period of time, potentially destabilizing their housing status and creating a precarious situation as they quickly seek alternative arrangements. To mitigate this disruption, municipalities could enforce a minimum notification period during which time residents' housing status is protected while they navigate their options and either decide to stay or find a new arrangement.

New Brighton, MN requires landlords provide a 90-day "grace period" before residents in a newly sold property can be moved out or otherwise held to new lease terms.

Type	Regulation
Jurisdiction	County or Municipal
Target	Subsidized affordable housing
Example	New Brighton, MN

Strategy Toolkit

Equitable transit-oriented development (ETOD)

To counteract the impacts of high transportation costs on workforce and low-income households' cost of living, ETOD helps concentrate affordable housing options near transit stops that offer convenient access to employment centers and other destinations without the need for a personal vehicle.

Typically structured around a partnership between a non-profit developer or other landholding entity and a lender, ETOD programs proactively acquire vacant or underutilized land within walking distance of transit stops and position the sites for higher density, mixed-income or 100% affordable development. The fund may be replenished in part or in full as sites are sold to affordable housing developer partners.

Type	Regulation
Jurisdiction	Regional, municipal, or neighborhood
Example	Indianapolis Neighborhood Housing Partnership (INHP) ETOD loan program

Image credit: INHP

Strategy Toolkit

Community Land Trust (CLT)

Typically managed by a community-based nonprofit, land trusts effectively remove the cost of land from a housing unit's overall development cost. The controlling entity absorbs the cost of the land and passes only the cost of construction to eventual buyers or renters. Because land often constitutes around 25% of a new housing unit's cost, this effectively results in a 25% discount for the future owner or tenant, significantly lowering the barrier to entry and making the unit attainable to households with lower incomes than the typical market process would allow.

Because the cost of land is permanently excluded from the pro forma, this model readily enables the affordability period to extend in perpetuity (rather than the 10-30 year timeframes other affordable development models are limited by).

Due to the decentralized nature of CLTs, communities can take matters into their own hands to preserve affordability and stability, with or without support from various levels of government.

Type	Non-profit or community led
Jurisdiction	Non-profit
Target	Affordable housing production and preservation
Example	Somerville, MA CLT

Image credit: City of Austin, Texas

Strategy Toolkit

Land Bank

Land banks are public authorities or non-profit organizations created to acquire, hold, manage, and sometimes redevelop property in order to return these properties to productive use to meet community goals, such as increasing affordable housing or stabilizing property values.

Land banks can play a number of different roles depending on a community's development goals, including assembling parcels of tax-delinquent or abandoned properties for redevelopment and acquiring and holding strategically valuable properties until the community can develop them as affordable housing.

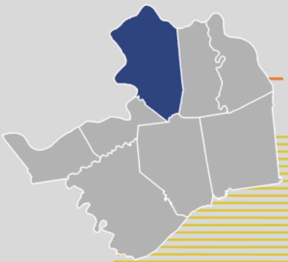
Land banks have State enabling legislation and Jefferson County KY (Louisville and Jefferson County Landbank Authority, Inc.) and Hamilton County OH (The Port) have land banks (source). Jefferson County's Landbank Authority acquires, manages and sells distressed properties and vacant unimproved parcels to responsible developers who can affect increased property values and stimulate the tax base. Key advantages of the Landbank Authority include merging property tax liens and other miscellaneous liens with title and extinguishing them to benefit subsequent buyers.

Type	Non-profit or community led
Jurisdiction	Non-profit
Target	Housing production
Example	Louisville and Jefferson County Landbank Authority, Inc.

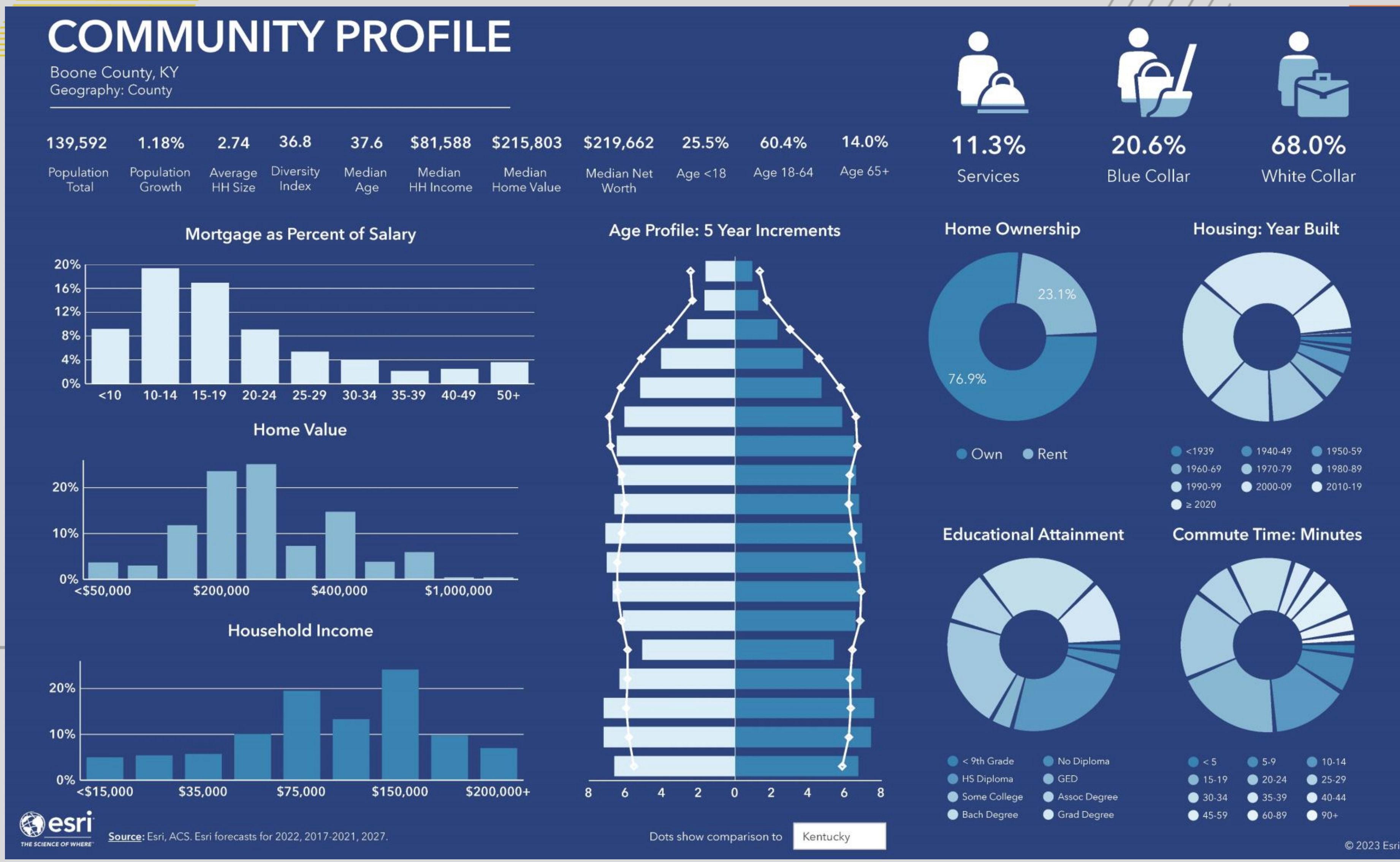
Image credit: Louisville/Jefferson County Landbank Newsletter

Area Profiles

1. Boone County
2. Campbell County
3. Carroll County
4. Gallatin County
5. Grant County
6. Kenton County
7. Owen County
8. Pendleton County
9. Covington City



Boone County



High Level Analytical Take-Aways

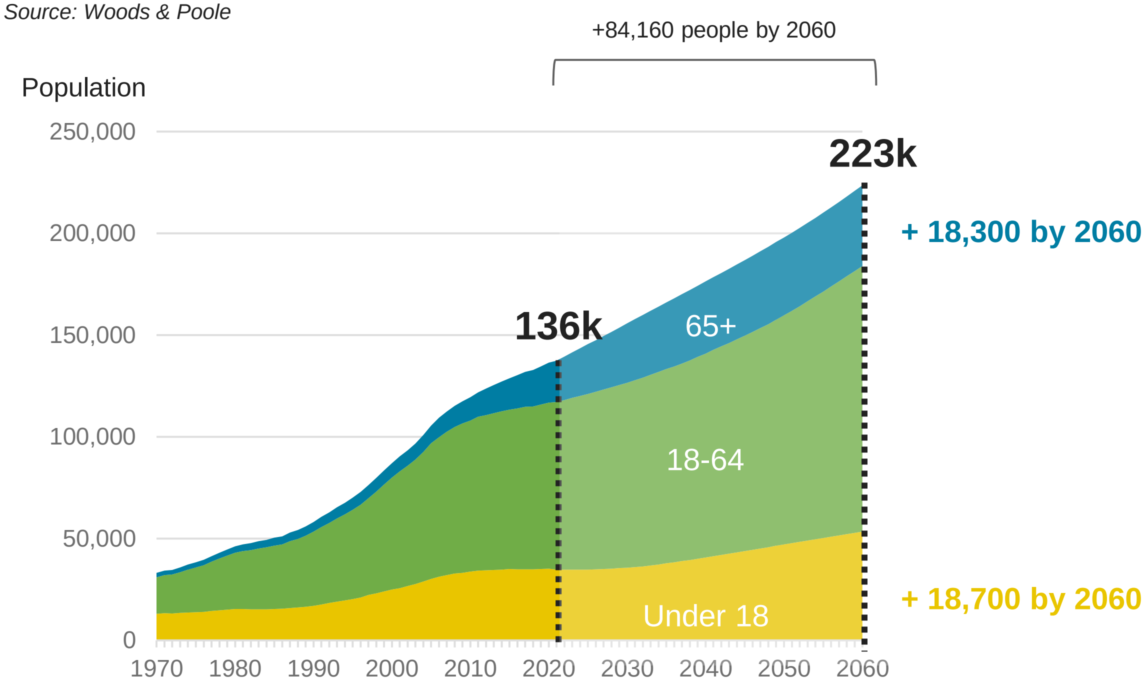
- **Connectivity:**
  - Boone County and its cities of Florence and Burlington are regional centers for the NKADD region. It has high trip ends per square foot for shopping, recreation and employment.
  - Florence and Burlington development scores highly relative to elsewhere in the region for walkability, indicating higher density housing development near regional draws.
  - The southern half of the county – Walton and Union – are proximally located to the logistics industry concentrated by the airport to the North and to the manufacturing parks extending south. Newer retail development is producing a node south of Florence that provides everyday services for newer subdivisions in the southern half of the county and extending into Owen.
- **Economy:**
  - Boone's economy contains structural diversity, but its largest growth segment is in logistics and transportation. These jobs range from lower end salaries in temporary and entry-level warehouse jobs, to middle income salaries at the airport, logistics management, and in trucking. Lower-wage jobs are a heavy part of the logistics employment structure, and many entry-level workers will continue to earn incomes below the county median. Pockets of lower-income neighborhoods are located in Burlington, Hebron and east of Florence, where people are more rent-burdened. These neighborhoods are also disproportionately people of color and foreign born, indicative of racial and ethnic disparities in the employment market.
  - Extending south from Florence to Walton is a robust manufacturing cluster that complements regional strengths in plastics, engines, and food processing that provides a mix of lower-wage routine labor and higher skilled professional and engineering services.
- **Housing:**
  - Boone's housing market grew faster than anywhere else in the region during the 2000s. Housing development is concentrated in single family development and rental complexes affordable for middle to upper-middle incomes, often in larger sizes relative to existing household demand. New developments often target higher income workers that commute into Cincinnati.
  - A gap exists for housing for lower-income workers in the fastest growing sectors, with these workers often commuting from western Kenton, northern Grant County and other NKADD counties. New development in the higher ends may relieve pricing pressure in the middle, but without broader opportunities for both low-income ownership and rental, the county's broader economic competitiveness may be hindered.
  - New housing in Walton and Union are providing a mix of suburban single-family and 'missing middle' condos, townhomes, and affordable rentals. This housing stock could be expanded in the years to come.

Boone County’s young and old populations are projected to grow by a similar amount by 2060

Boone County, KY is expected to experience significant population growth until 2060, with estimates projecting an increase of over 84,000 residents. The county is also expected to become more diverse, with a growing Hispanic population.

Population, by age group

Source: Woods & Poole



Boone County is projected to add 64,000 more jobs by 2060. The sector mix is not projected to change as significantly as in other counties

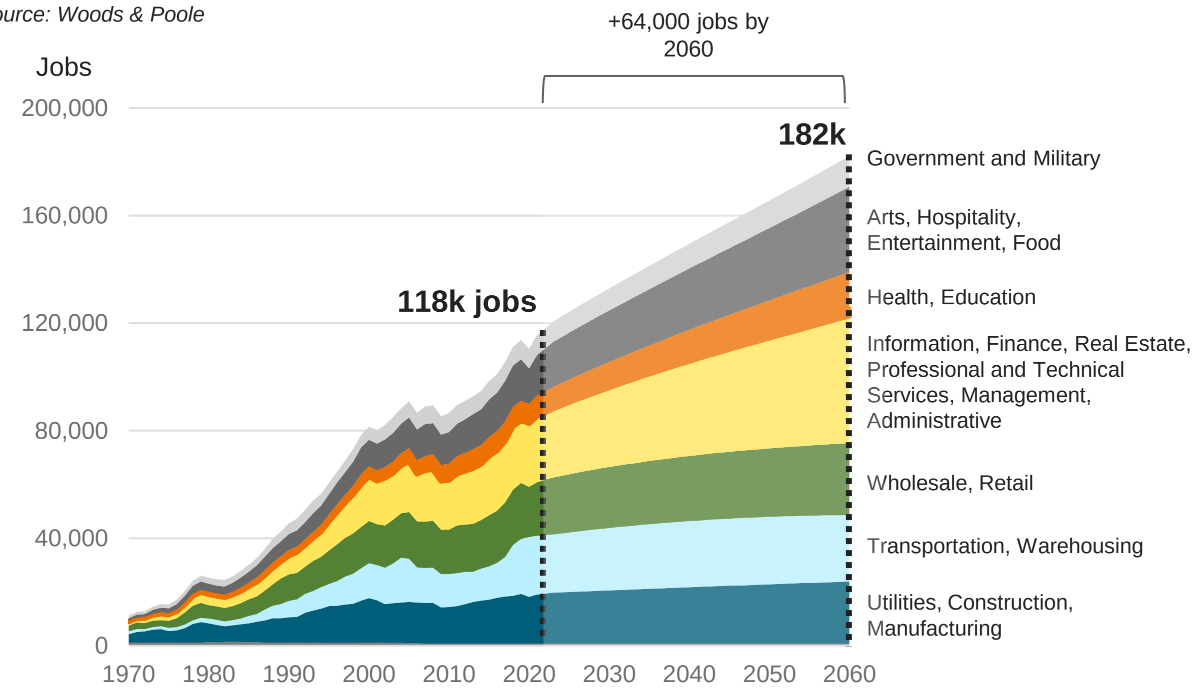
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



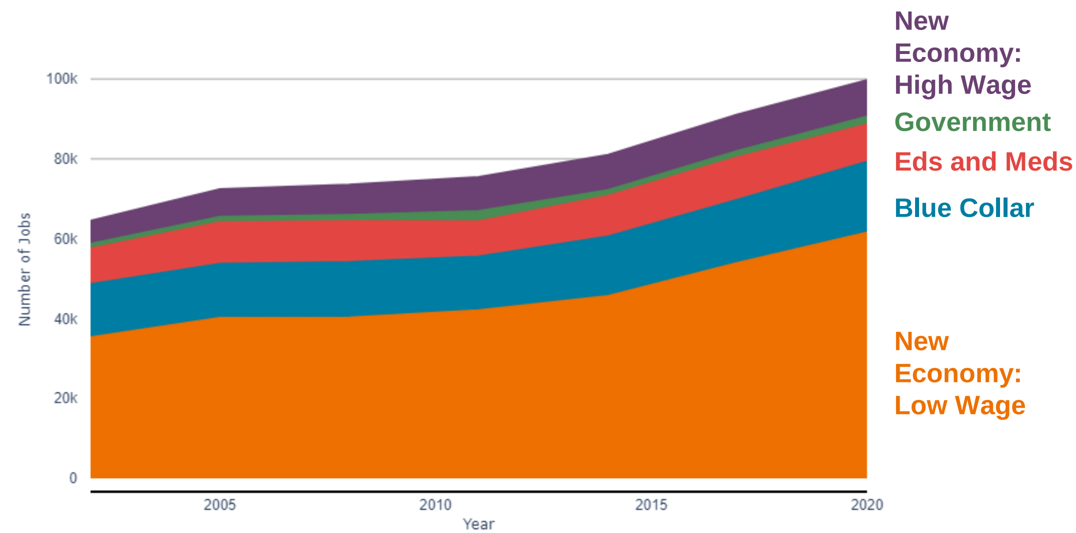
Boone County is a logistics hub

Boone is a major employment hub, with more people working in Boone than employed people who live in Boone! 27,829 people live in and work in Boone County, making Boone County residents the largest share of all holders of Boone County jobs. They are closely followed by Kenton County and Hamilton County residents commuting into Boone jobs.

Boone's main employment sectors are in the logistics economy, with warehousing, couriers, air transport workers central to the region's growth since 2013. This tightly couples with Amazon's expansion in the region and its centrality to Amazon's broader distribution network. These jobs pay low-middle income salaries, whereas broader transport jobs pay middle-income salaries. The logistics sector is complemented by lower-wage service sector jobs with the lowest incomes, and a mix of higher income professional jobs situated at local regional corporate offices such as ADM in Florence.

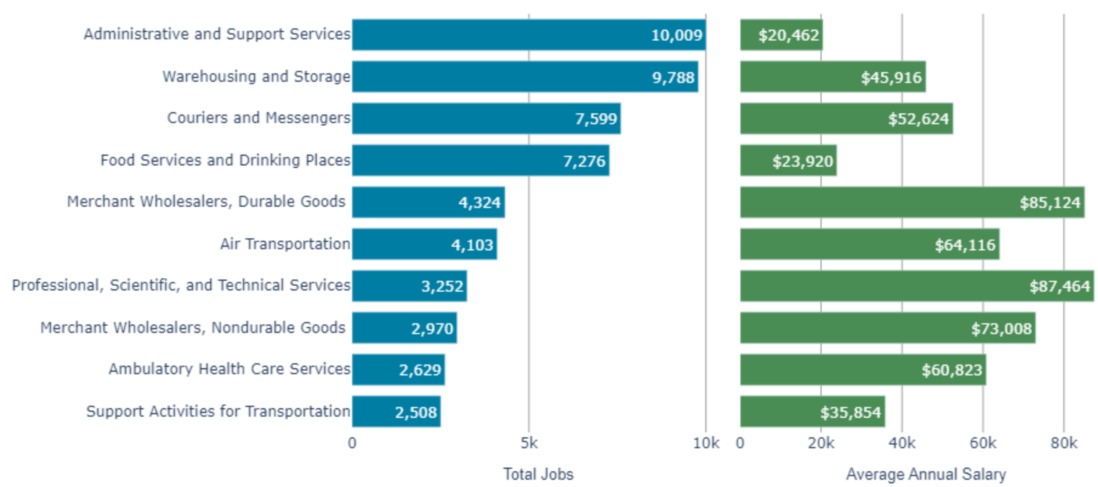
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

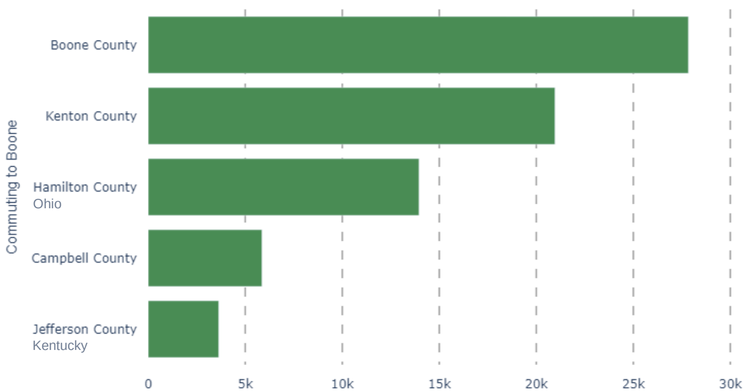


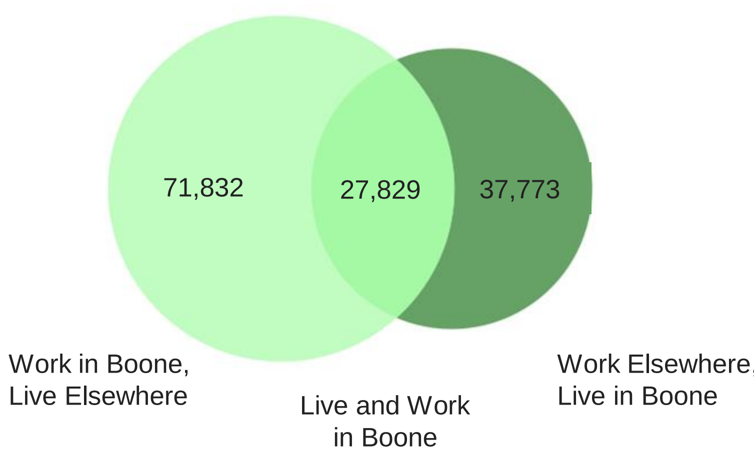
Boone is an employment hub that imports labor

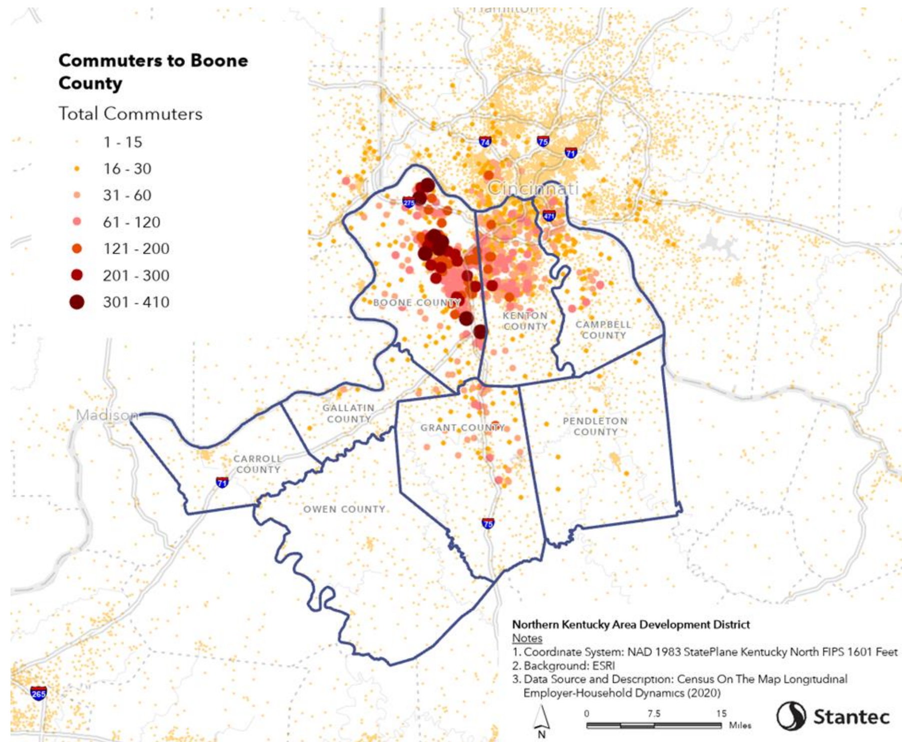
Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020







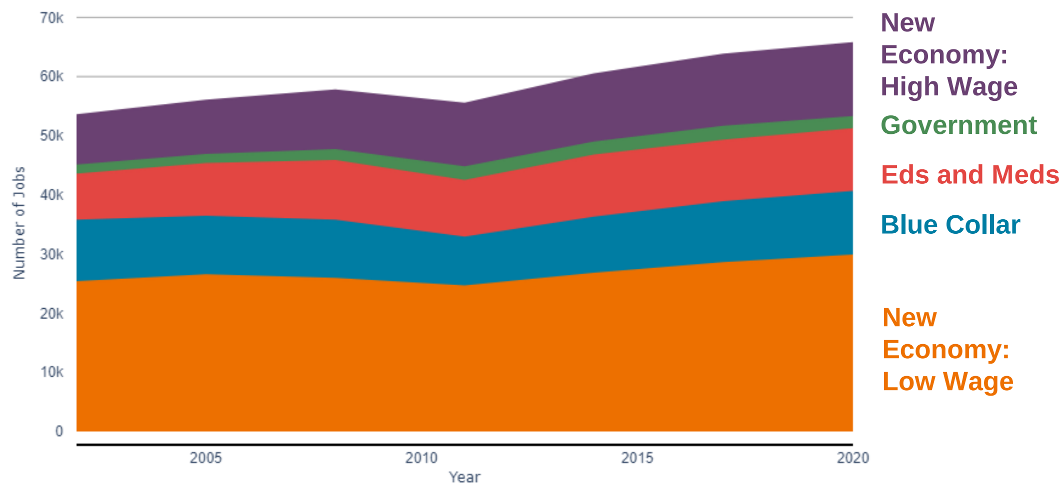
Boone Residents: Work in higher paid jobs

More Boone County residents work in New Economy High Wage positions, Education, and Healthcare than the amount of those jobs located in the County. These residents predominantly live in newer Boone single-family subdivisions and commute to Cincinnati, Covington or Newport. More than 3,000 workers also commute to Jefferson County in Indiana – a number more than any other NKADD county. In addition to the large amount of middle-income logistics jobs, this elevates Boone's median household income to north of $81,000, the highest in the region.

As a result, we can deduce that Boone County imports large sections of its low-wage logistics labor force from other parts of the broader Cincinnati and NKADD region.

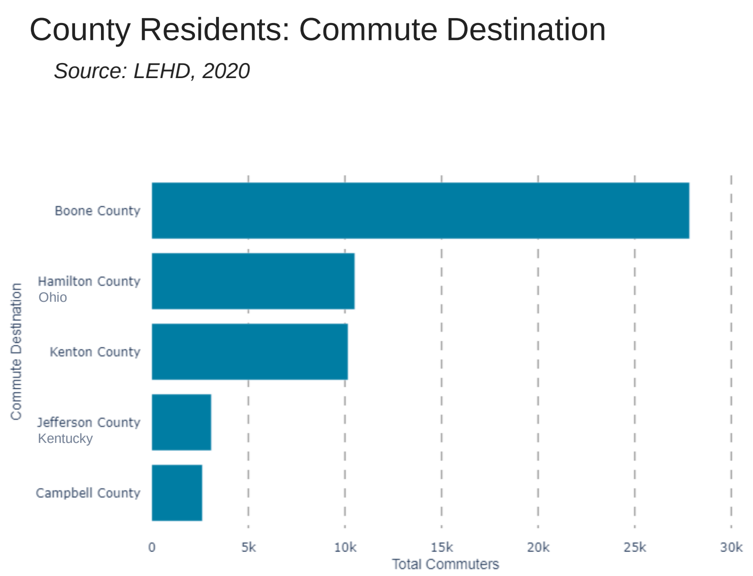
County Residents: Industry Sector Employed

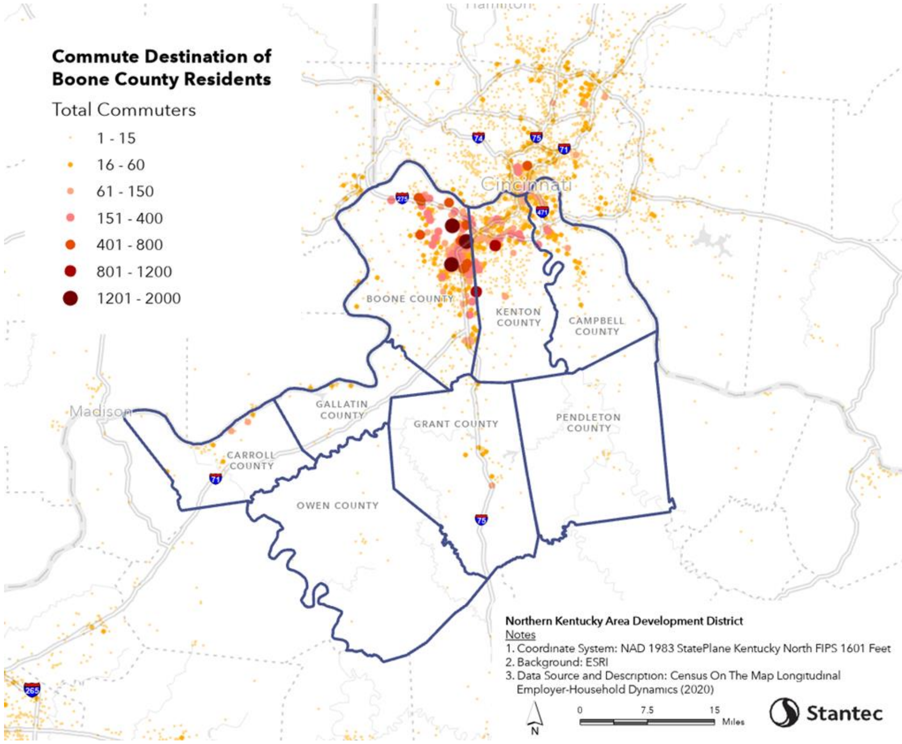
Source: LEHD, 2002-2020



A large proportion of residents work locally

Chart and map of work locations for county residents





Boone is deficient in smaller, less expensive rental units as well as 1- and 2-bed ownership units

Housing demand in Boone reflects the higher household incomes of its residents, and the robust lower to lower-middle income structure of its economy. As households continue to get smaller and new residents enter into the job market in entry roles, demand will persist for lower wage rental and ownership opportunities. Investing in housing that is less than $1,380 in monthly costs - or 30% of the average warehouse job salary - will ensure Boone's regional competitiveness as a logistics hub, putting less upward pressure on wages.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	512	490	254	39	66	343	619	195
$15,000-24,999	$521	744	622	298	64	92	491	878	229
$25,000-34,999	$729	480	695	384	55	58	384	930	262
$35,000-49,999	$1,042	645	917	531	114	90	656	1,978	637
$50,000-74,999	$1,563	517	980	691	152	122	917	3,263	1,383
$75,000-99,999	$2,083	297	699	664	258	85	554	2,462	1,374
$100,000-149,999	$3,125	75	315	368	124	82	655	4,268	3,739
$150,000-199,999	$4,167	24	90	122	59	23	263	1,881	2,798
$200,000 or more	--	32	56	45	11	11	122	964	2,038

Boone is deficient in smaller, less expensive rental units as well as 1- and 2-bed ownership units

Housing development in Boone County has been robust as the county grows into a major employment cluster. Historic housing production focused on creating mid-tier affordable housing product in suburban sub-divisions, converting former rural land into residential land uses. These units – in particular new construction – is focused for higher income households in the region, putting a strain on the lower and middle-end of the housing market. This is producing a disjuncture where many of Boone's lower and middle income logistics workers are instead living further afield in pursuit of more affordable options.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	2	163	667	24
$15,000-24,999	$521	3	5	0	0	7	88	582	18
$25,000-34,999	$729	504	140	61	0	8	83	331	31
$35,000-49,999	$1,042	1,220	1,991	119	0	28	546	483	45
$50,000-74,999	$1,563	1,043	2,903	1,091	0	64	2,326	3,086	326
$75,000-99,999	$2,083	38	1,862	1,716	79	23	1,055	7,084	1,308
$100,000-149,999	$3,125	18	242	632	633	23	610	6,305	7,286
$150,000-199,999	$4,167	0	0	15	88	11	82	914	2,687
$200,000 or more	--	0	0	0	0	6	32	231	770

Boone is deficient in smaller, less expensive rental units as well as 1- and 2-bed ownership units

The housing gap clearly indicates Boone's continued focus on single family and rental housing for higher income households. The mismatch between current housing demand and market supply means that lower income renters are competing with higher income persons for similar middle-income housing, pushing prices upwards. Opportunity exists for both higher end development to release pressure in the middle, and a significant need for lower income housing across size and ownership structure.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-512	-490	-254	-39	-64	-180	48	-171
$15,000-24,999	$521	-743	-621	-298	-64	-85	-403	-296	-211
$25,000-34,999	$729	-437	-681	-380	-55	-50	-301	-599	-231
$35,000-49,999	$1,042	-617	-797	-502	-114	-62	-110	-1,495	-592
$50,000-74,999	$1,563	-485	-708	-149	-152	-58	1,409	-177	-1,057
$75,000-99,999	$2,083	-279	645	717	-179	-62	501	4,622	-66
$100,000-149,999	$3,125	-57	-73	218	509	-59	-45	2,037	3,547
$150,000-199,999	$4,167	-24	-90	-107	29	-12	-181	-967	-111
$200,000 or more	--	-32	-56	-45	-11	-5	-90	-733	-1,268

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Construction (Since 2000) in Boone for Ownership

New construction in Boone for home-ownership is concentrated in single-family subdivisions targeting 3-4BR+ households earning between $75,000 per year and $150,000. Construction in this range includes many major subdivisions outside of Burlington, Florence, and extending south into Walton. Newer subdivisions are emerging in Walton and Owen with price points starting in the low $300,000 range, or approx. $2,035 per month.

Manufactured homes remain the main option for home ownership for low-income households, whereas new condos are targeted for smaller households earning above $50,000. Condos are concentrated in Southeastern Florence, but spare in comparison to single family detached.

Boone's housing serves more than just its local workforce, with Boone County market-rate development currently serving households that tend to earn more than the most common logistics and transport jobs hosted in the region. 20.4% of new single-family homes are affordable for households earning the county's median household income.

		Condominium				Duplex	Manufactured Home		Single Family				Town house
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	4BR+	2BR	3BR	1BR	2BR	3BR	4BR+	2BR
Less than $15,000	$313	0	0	0	0	0	2	17	0	0	86	2	0
$15,000-24,999	$521	0	34	0	0	0	7	88	0	1	60	2	0
$25,000-34,999	$729	0	1	0	0	0	2	23	0	2	89	18	0
$35,000-49,999	$1,042	2	64	1	0	0	3	17	0	2	93	23	1
$50,000-74,999	$1,563	3	703	19	19	0	0	13	2	22	154	23	13
$75,000-99,999	$2,083	4	459	103	6	3	1	0	2	92	2,356	329	0
$100,000-149,999	$3,125	1	181	17	1	1	0	0	9	221	3,004	3,819	0
$150,000-199,999	$4,167	0	0	0	0	0	0	0	7	48	498	1,866	0
$200,000 or more	--	0	0	0	0	0	0	0	2	25	151	591	0

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Ownership development examples

Condos

2234 Jackson Court, Florence KY
Suburban Condominiums

1, 2 and 3 Bedrooms

Ranges from $180,000-200,000
($1,280 month cost of ownership)

Suburban Single Family

3845 Sonata Dr, Union, KY

Single family housing in new suburban subdivisions.

3-4+ Bedrooms.

Range $280,000-$450,000
($2,230 month cost of ownership)

Condos

New Development: Preston at Plantation Pointe
1001 Maggie's Way, Florence KY
Developer: Drees Homes

2-3 Bedrooms

Prices Start at $264,450
($1,800 month cost of ownership)

Suburban Single Family

New Development, Traemore Gardens, Union, KY
Developer: Drees Homes (Large builder of regional suburban homes)

Bedrooms: 3 and up

Houses range $509,000 and above
($3,375 month cost of ownership)

New Construction (Since 2000) in Boone, Rentals

New construction in Boone for the rental market is concentrated in large ‘Garden Style’ rental complexes with amenities. Rents mostly range from $1,000-$1,500 for this development type.

Single family homes and single condominium units for rent tend to be more expensive, whereas Low-Rise apartment homes, duplexes, and small apartment buildings offer some more affordable rent options.

It is rare to find units for less than $700, especially amongst newer construction as construction costs rise.

		Apartments			Condominium				Duplex			Garden			Low-Rise			Mobile Home		Single Family				Town house
Household Income Required	Max Costs	1BR	2BR	3BR	1BR	2BR	3BR	4BR+	2BR	3BR	4BR+	1BR	2BR	3BR	1BR	2BR	3BR	2BR	3BR	1BR	2BR	3BR	4BR+	3BR
Less than $15,000	$313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$15,000-24,999	$521	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$25,000-34,999	$729	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
$35,000-49,999	$1,042	45	20	0	0	0	0	0	138	0	0	177	339	0	0	33	10	0	0	0	0	1	0	1
$50,000-74,999	$1,563	0	62	141	4	23	0	0	0	0	0	411	1,314	234	0	0	0	40	54	0	0	22	0	0
$75,000-99,999	$2,083	0	0	0	2	743	82	9	1	0	1	0	106	142	0	0	0	1	3	0	20	448	16	0
$100,000-149,999	$3,125	0	0	0	0	32	25	6	0	1	50	0	0	0	0	0	0	0	0	5	13	208	223	0
$150,000-199,999	$4,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	69	0
$200,000 or more	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Rental development Types

Garden

Towne Creek Crossing
13173 Service Road, Walton KY
LIHTC Affordable Units
Developer: Woda Cooper Companies

44 Units
1, 2, and 3 Bedrooms

Rent
1 Bed = $647
2 Bed = $776
3 Bed = $889

Garden

Windridge Townhomes
6700 Hopeful Rd, Florence KY

1, 2, and 3 Bedroom Units

Rent
1 Bed = $1,459
2 Bed = $1,614
3 Bed = $2,038

Mid-Rise

Tapesty Turfway
4787 Houston Rd, Florence KY

1, 2 and 3 Bedrooms

Rent
1 Bed = $1,400
2 Bed = $1,675
3 Bed = $2,050

Low-Rise

Sanctuary Place
1900 Sanctuary Place
Hebron, KY

1, 2, and 3 Beds

Rent
1 Bed = $945
2 Bed = $1,275
3 Bed = $1,520

Boone County is projected to add 8,100 households in the next ten years.

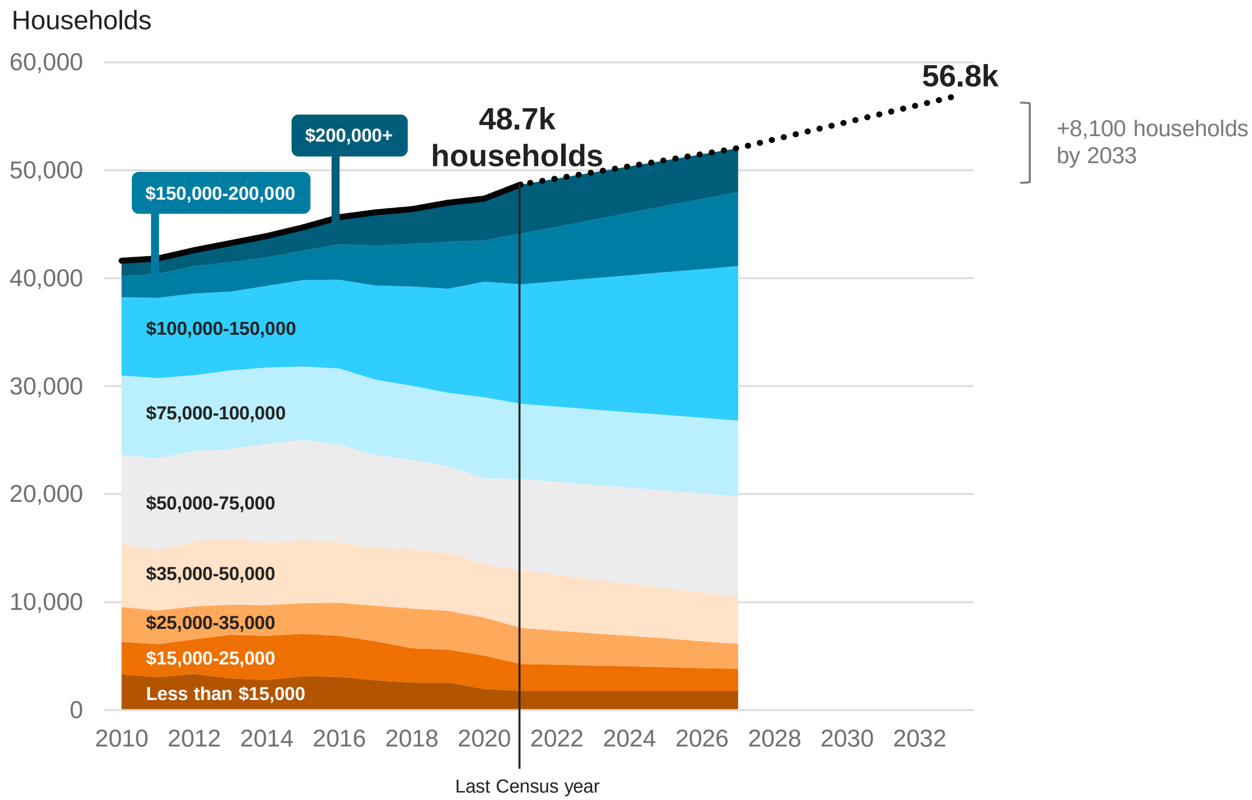
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Boone County is rapidly growing, especially in the higher-income segments.

Boone County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



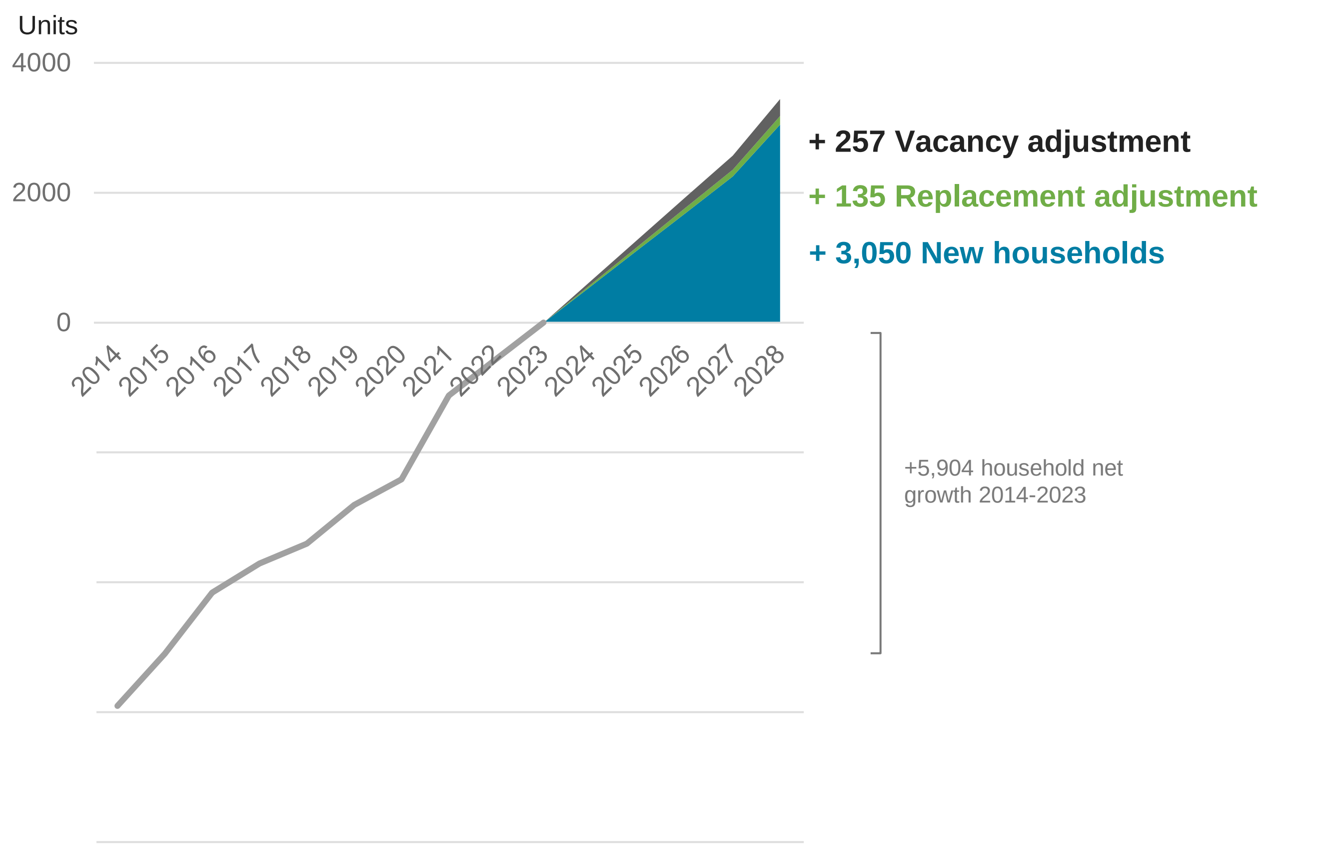
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **3,443 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

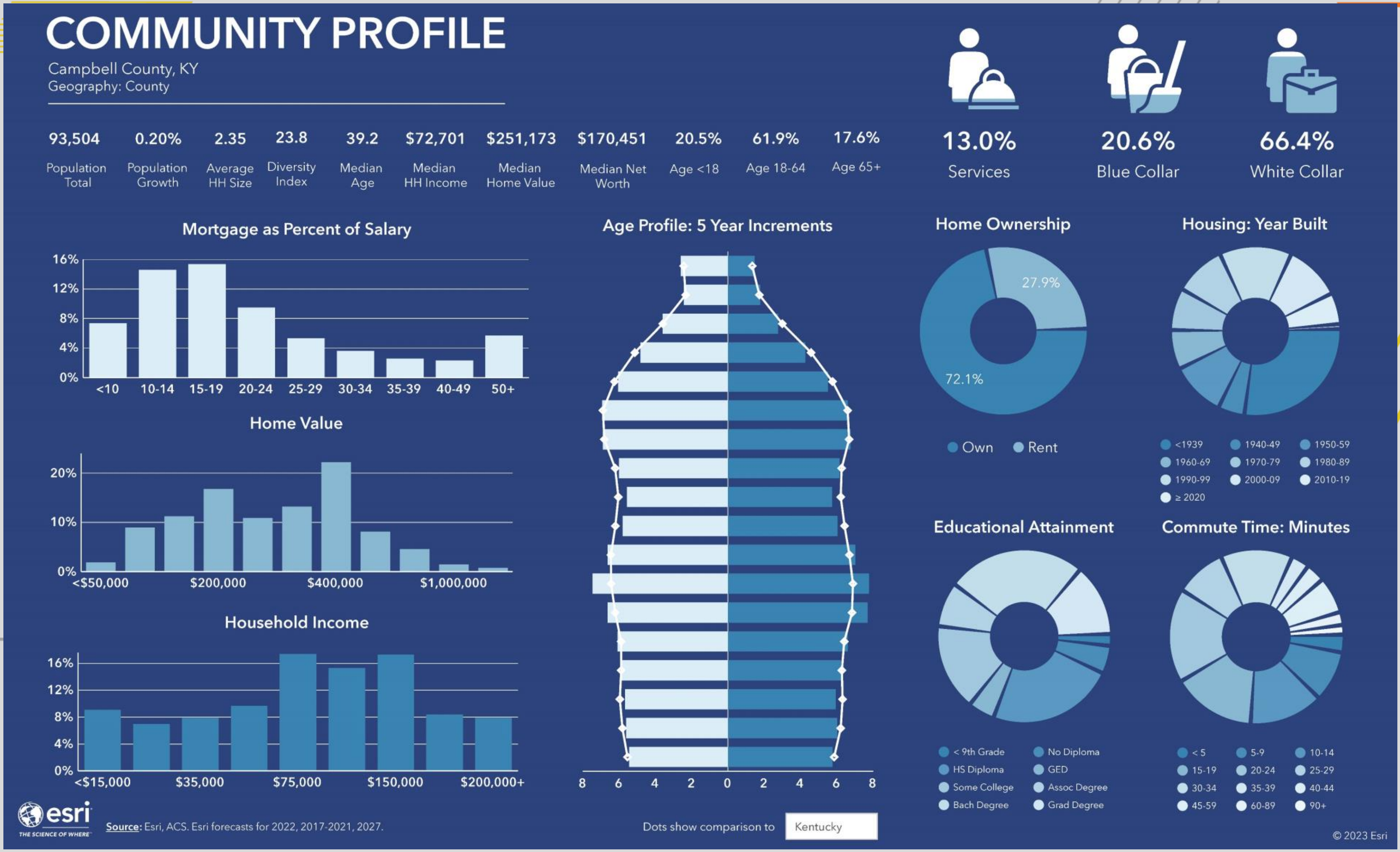
5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

Maximum monthly housing cost	*Rent*				*Own*				
	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	77	70	30	9	4	9	14	4	
$521	38	39	18	4	2	5	9	3	
$729	72	80	37	8	3	13	23	7	
$1,042	136	162	83	20	7	34	74	26	
$1,563	131	163	98	24	9	41	113	47	
$2,083	30	45	32	9	2	13	52	30	<60% AMI
$3,125	31	56	47	17	3	19	90	76	60-80% AMI
$4,167	25	51	44	17	3	23	111	145	80-120% AMI
More than $4,167	31	71	55	41	8	37	184	300	>120% AMI

Notes:

- *.Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $103,600*

Campbell County



High Level Analytical Take-Aways

- **Connectivity:**
    - Newport is a dense urban area that continues to serve as a regional hub for errands, shopping, recreational trips and employment. Newport remains highly walkable.
    - Trip ends are also common near the hospital

- **Economy:**
    - Campbell's economic prospects are tied to the broader region as more people commute from Campbell to elsewhere than commute in. The resident base works in higher-income white collar jobs compared to elsewhere in the county, and continues to capture a good share of Cincinnati's high wage, New Economy jobs. However, it also has a high New Economy low wage job share generated from higher income household consumption and a mix of lower paid healthcare jobs for Campbells higher ratio of aging adults.

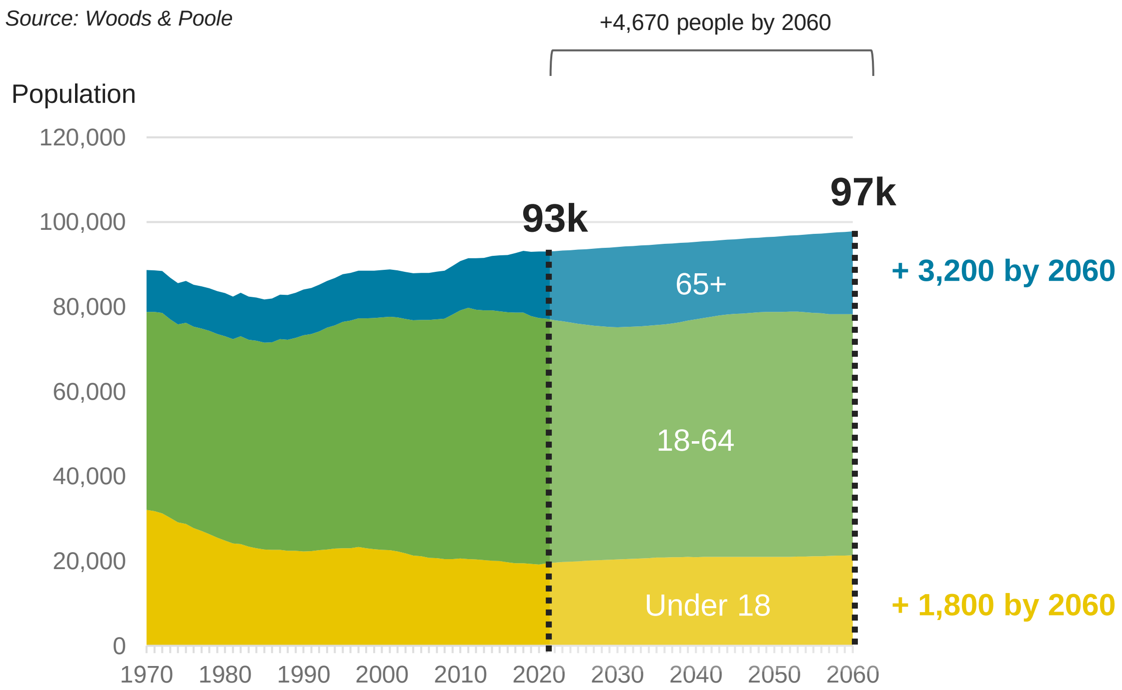
- **Housing:**
    - Campbell's housing development has been relatively slow and consistent in comparison to Boone County. Higher end housing development is occurring on two main axes: 1) Suburban tract housing development in suburban Alexandria, and 2) Infill luxury housing and old mixed-use conversions in historic neighborhoods in Fort Thomas, Newport and Dayton.
    - Market-rate housing is competing for higher shares of higher income households at the expense of more affordable building types for lower and middle-income residents. As a result, the county continues to have much higher rates of cost-burdened renters and homeowners than other parts of the region. Gentrification in historic neighborhoods also puts cost pressure on naturally occurring affordable housing in mixed-use neighborhoods.

Slight increase in population with a slightly aging population

Campbell County, KY is expected to experience steady population growth until 2060. The county is projected to become more diverse, with a growing Hispanic population and an aging population.

Population, by age group

Source: Woods & Poole



Campbell County is projected to add 18,700 jobs by 2060 with an emphasis on office jobs and wholesale

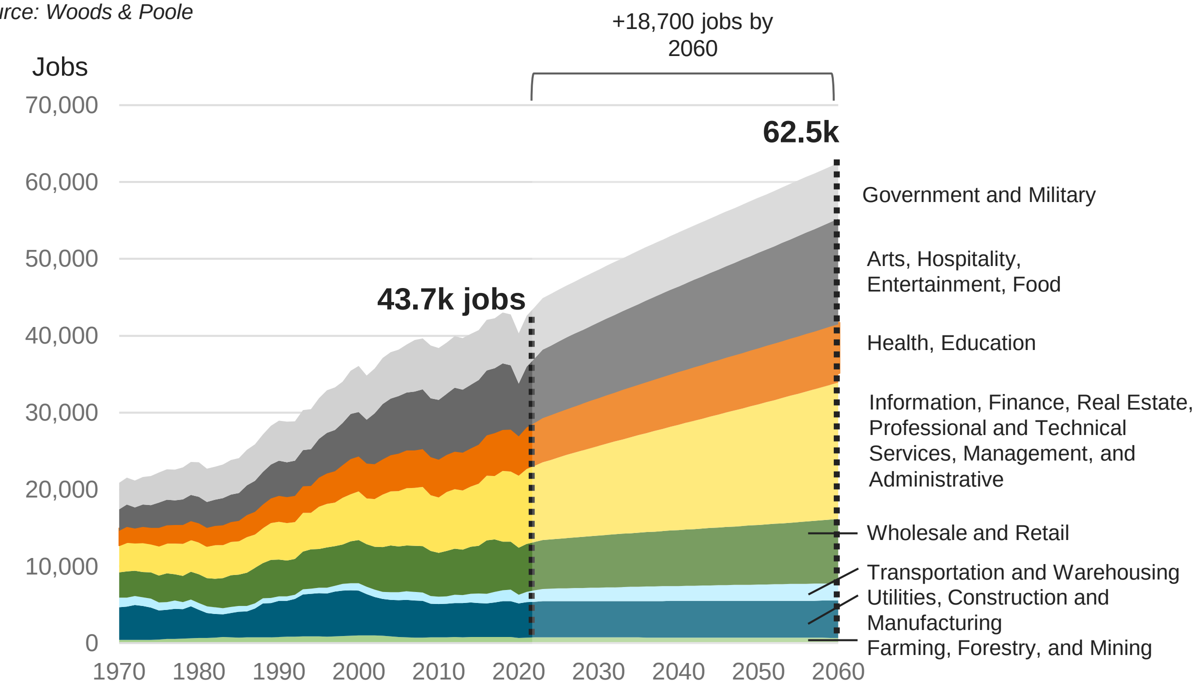
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



Healthcare and Services Drives the Economy

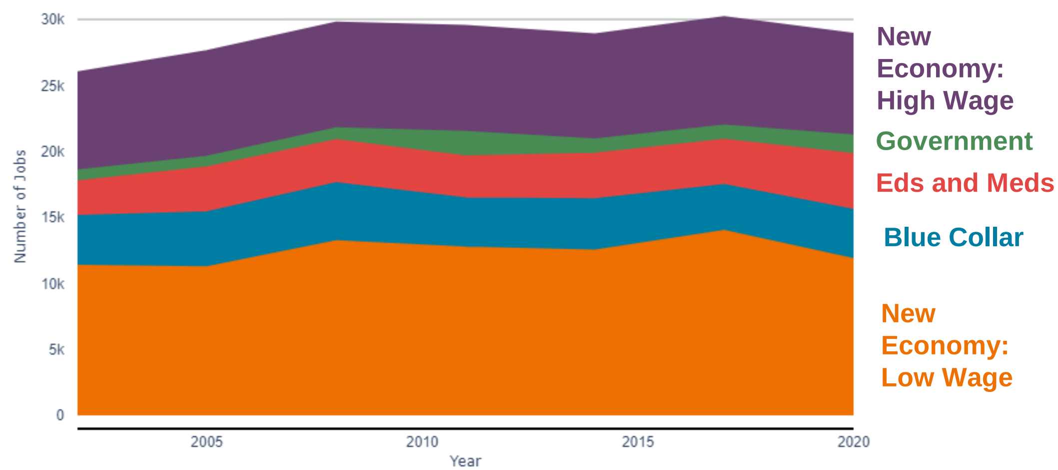
Campbell contains a moderate employment base of 28,894 jobs, a number less than the total employed persons in the County.

A key employer in the region is the St. Elizabeth Ft. Thomas hospital that generates employment in higher paying hospital, emergency services, and medical testing jobs.

Employment in professional services and healthcare generate effective demand for low-wage service sector jobs in retail and hospitality. Blue collar jobs – predominantly in construction related occupations – have been slowly declining.

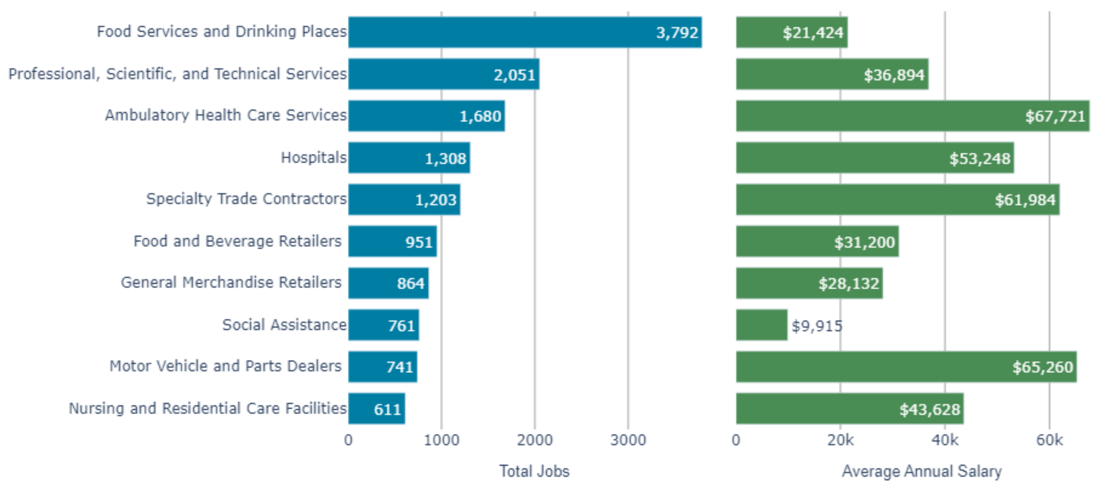
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

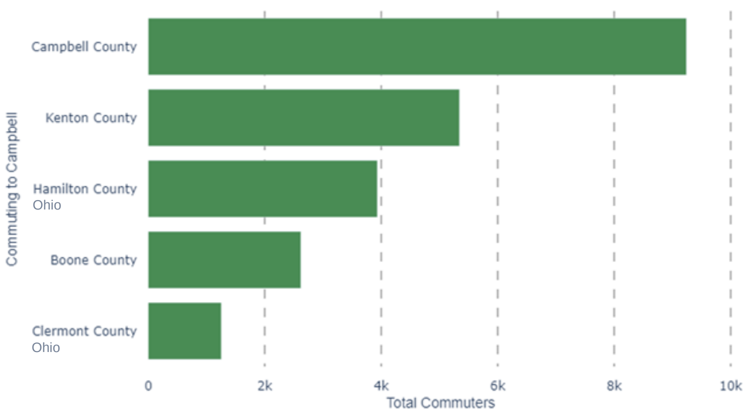


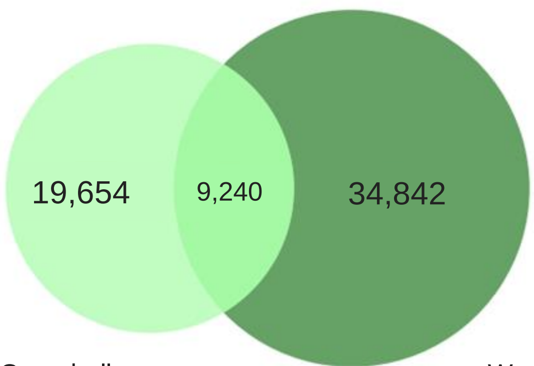
A bedroom community and employment hub

Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020

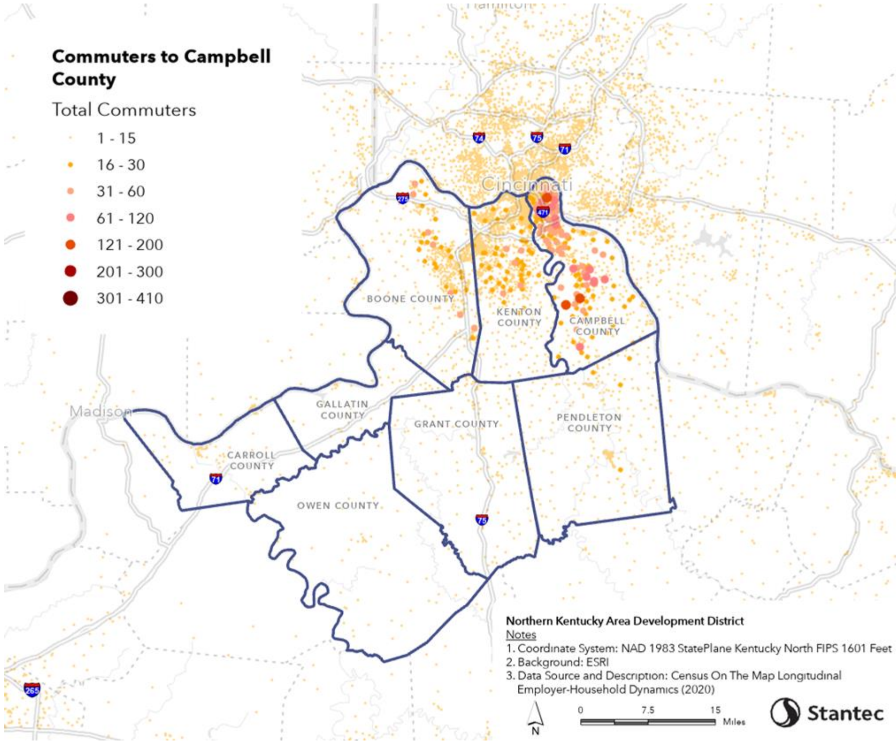




Work in Campbell, Live Elsewhere

Live and Work in Campbell

Work Elsewhere, Live in Campbell



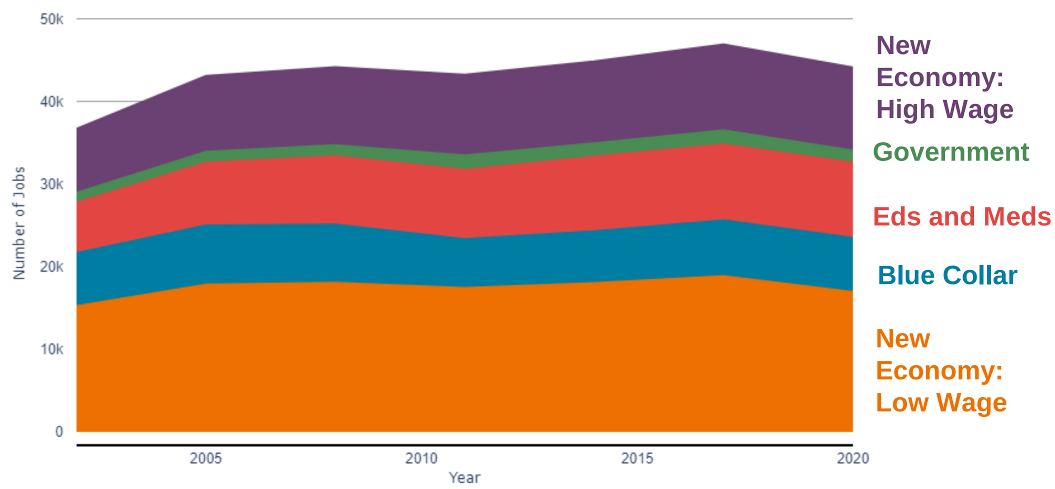
Campbell County: Cincinnati Commuters

A high percentage of Campbell County residents work elsewhere, with this share growing in New Economy High Wage positions and Eds and Meds. The top place people commute to is Cincinnati in Hamilton County, followed by people who live and work in Campbell, and followed by Boone and Kenton Counties. Median household income is $72,701, positioning it below Boone and Kenton.

Higher valued single-family subdivisions following the river South and new luxury multi-family in Newport and Dayton are leading factors in recruiting higher-wage regional workers into the county.

County Residents: Industry Sector Employed

Source: LEHD, 2002-2020

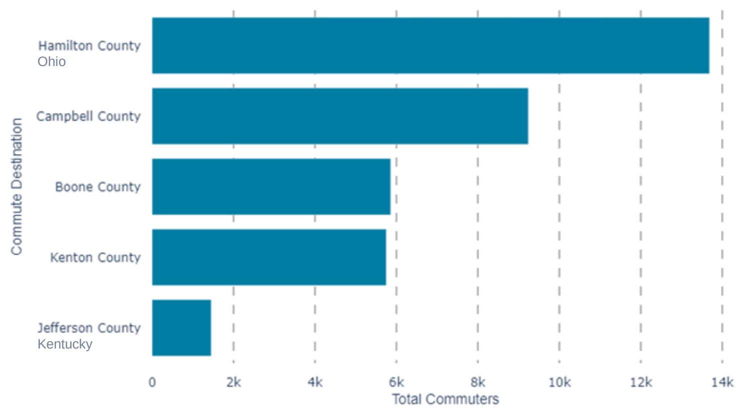


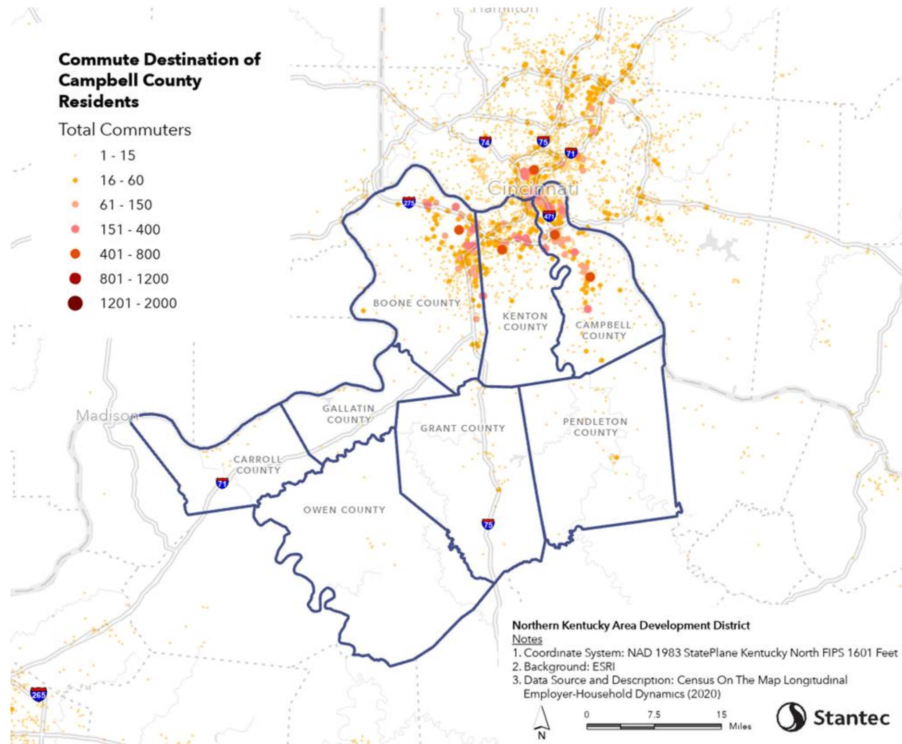
Campbell County: Commuting North and South

Chart and map of work locations for county residents

County Residents: Commute Destination

Source: LEHD, 2020





Campbell is deficient in very low-cost 1-bedrooms and has a surplus of 3+ bedroom ownership housing

Campbell's demand profile reflects its bifurcated economic structure. Demand is high for upper-middle housing for those who work more highly paid sectors, but also a strong demand for low and very low income rental and ownership housing for those who work in low wage service sector jobs.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	1,117	998	506	111	106	402	820	212
$15,000-24,999	$521	548	599	274	52	69	348	760	243
$25,000-34,999	$729	512	651	298	65	63	441	966	262
$35,000-49,999	$1,042	476	627	343	58	87	554	1,655	516
$50,000-74,999	$1,563	470	804	551	118	97	760	2,518	1,006
$75,000-99,999	$2,083	191	391	255	64	78	390	1,887	997
$100,000-149,999	$3,125	196	295	234	53	65	445	3,066	2,364
$150,000-199,999	$4,167	9	32	55	26	25	172	1,099	1,344
$200,000 or more	--	46	66	57	30	10	111	559	1,159

Campbell is deficient in very low-cost 1-bedrooms and has a surplus of 3+ bedroom ownership housing

Campbell's supply profile is largely focused in the middle to upper-middle housing range and is lacking in lower income apartments. With new developments largely emerging in the higher end for both rental and ownership markets, pricing pressure is high on older apartment housing stock, especially rental units in mixed-use historic areas.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	8	93	188	19
$15,000-24,999	$521	33	0	0	0	16	203	300	55
$25,000-34,999	$729	323	134	7	0	51	458	479	101
$35,000-49,999	$1,042	1,147	978	118	0	138	1,502	1,258	226
$50,000-74,999	$1,563	1,065	1,551	356	4	50	2,000	4,427	1,126
$75,000-99,999	$2,083	100	1,390	1,078	102	21	748	3,291	2,772
$100,000-149,999	$3,125	159	362	388	676	8	381	1,443	3,925
$150,000-199,999	$4,167	0	1	34	80	2	47	225	1,258
$200,000 or more	--	0	0	0	0	0	19	116	502

Campbell is deficient in very low-cost 1-bedrooms and has a surplus of 3+ bedroom ownership housing

Campbell's housing stock contains a surplus of units in the upper-middle income ranges in larger units, and a pretty severe deficit in affordable rental housing for lower income households. This deficit is reflected in higher proportions of rent-burdened households than other counties in the region.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-1,117	-998	-506	-111	-98	-309	-632	-193
$15,000-24,999	$521	-540	-599	-274	-52	-53	-145	-460	-188
$25,000-34,999	$729	-476	-629	-296	-65	-12	17	-487	-161
$35,000-49,999	$1,042	-420	-553	-304	-58	51	948	-397	-290
$50,000-74,999	$1,563	-380	-530	-352	-114	-47	1,240	1,909	120
$75,000-99,999	$2,083	-102	826	675	36	-57	358	1,404	1,775
$100,000-149,999	$3,125	-168	-102	123	623	-57	-64	-1,623	1,561
$150,000-199,999	$4,167	-9	-31	-46	54	-23	-125	-874	-86
$200,000 or more	--	-46	-66	-57	-30	-10	-92	-443	-657

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

Campbell: New Development for ownership market focused on 3-4BR single-family homes in mid-upper price ranges

* 'New' Development is post-2000

Market rate new housing construction is concentrated in single-family homes in the mid to upper price-range; a bracket comfortable for market-rate suburban subdivision housing developers.

Slightly more affordable condos haves been built for smaller households.

Manufactured homes are the most affordable option, but new development here is limited.

		Condominium				Manufactured Home			Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	1	0	0	4	15	0	0	1	9	0
$15,000-24,999	$521	0	2	0	0	9	5	2	0	1	9	1
$25,000-34,999	$729	0	10	0	0	2	20	0	0	0	7	3
$35,000-49,999	$1,042	9	50	0	0	1	7	0	0	9	9	3
$50,000-74,999	$1,563	4	492	10	1	1	5	0	0	55	112	30
$75,000-99,999	$2,083	6	190	15	0	1	0	0	2	127	252	180
$100,000-149,999	$3,125	3	86	55	0	0	1	0	2	176	447	1,009
$150,000-199,999	$4,167	0	2	14	0	0	0	0	1	27	96	556
$200,000 or more	--	0	10	37	1	0	0	0	0	6	50	256

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Ownership Development Typical Examples

Condos

440-449 Riverpointe Drive, Dayton Suburban Condominiums

2 and 3 Bedrooms

Ranges from $250,000-400,000
($2,200 month cost of ownership)

Suburban Single Family

1190 Edgewater Way, Alexandria KY

Single family housing in new suburban subdivisions off Alexandria Pike.

3-4+ Bedrooms.

Range $240,000-$350,000
($2,000 month cost of ownership)

Condos

1 Highland Avenue, Fort Thomas KY

2 Bedrooms

Prices Start at $865,000
($5,840 month cost of ownership)

Suburban Single Family

New Development: Arcadia Place
Wembley, Timber Creek Views, Alexandria, KY
Developer: Fischer Homes

Bedrooms: 3 and up

Houses range $500,000 and above
($3,375 month cost of ownership)

Campbell: New Development for rental market

* 'New' Development is post-2000

Market rate rental housing construction in Campbell is centered on 1-2BR units in Garden and Mid-Rise style Apartment buildings with the majority in between $1,000 and $1,500 in monthly rent.

Single family rentals and condominium's for rent round out the majority of the housing stock.

Fewer large housing conversions often typified by 'Low-Rise' style or formerly low-to-middle income rentals in the form of duplexes, triplexes, and quadplexes have been part of the recent housing mix.

		Condominium				Garden			Low-Rise		Mid-Rise			Manufactured Home		Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	1BR	2BR	1BR	2BR	3BR	2BR	3BR	1BR	2BR	3BR	4BR+
$25,000-34,999	$729	0	0	0	0	24	0	0	2	0	0	0	0	0	0	0	0	0	0
$35,000-49,999	$1,042	0	0	0	0	159	22	0	0	14	84	0	0	0	0	0	0	0	0
$50,000-74,999	$1,563	7	17	0	0	48	444	73	48	0	261	167	52	3	9	0	0	2	0
$75,000-99,999	$2,083	18	166	15	0	0	0	52	0	0	0	175	0	0	3	1	20	41	0
$100,000-149,999	$3,125	0	40	31	0	0	0	0	0	0	0	90	32	0	0	0	1	20	63
$150,000-199,999	$4,167	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3	26

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Rental Development Examples

Garden

Highland Village
515 Main Ave, Highland Heights, KY
LIHTC Affordable Units/Public Housing

118 Units
1, 2, and 3 Bedrooms

Rent
Rent assessed based on income

Mid-Rise

The Manhattan on the River
1065 Manhattan Blvd, Dayton KY
1, 2, and 3 Bedroom Units
268 Units
Luxury Units

Rent
1 Bed = $1,427
2 Bed = $1,862
3 Bed = $2,422

Mid-Rise

Academy on 4th
101 E 4th St, Newport KY
Luxury Mid-Rise

202 Units
1 and 2 Bedrooms

Rent
1 Bed = $1,650
2 Bed = $2,300

Low-Rise

Silverwoods Landing
4220 Alexandria Pike, Cold Spring KY

2 Bedrooms
72 Units

Rent
2 Bed = $1,169

Campbell County's household is population is stable, while jobs are increasing

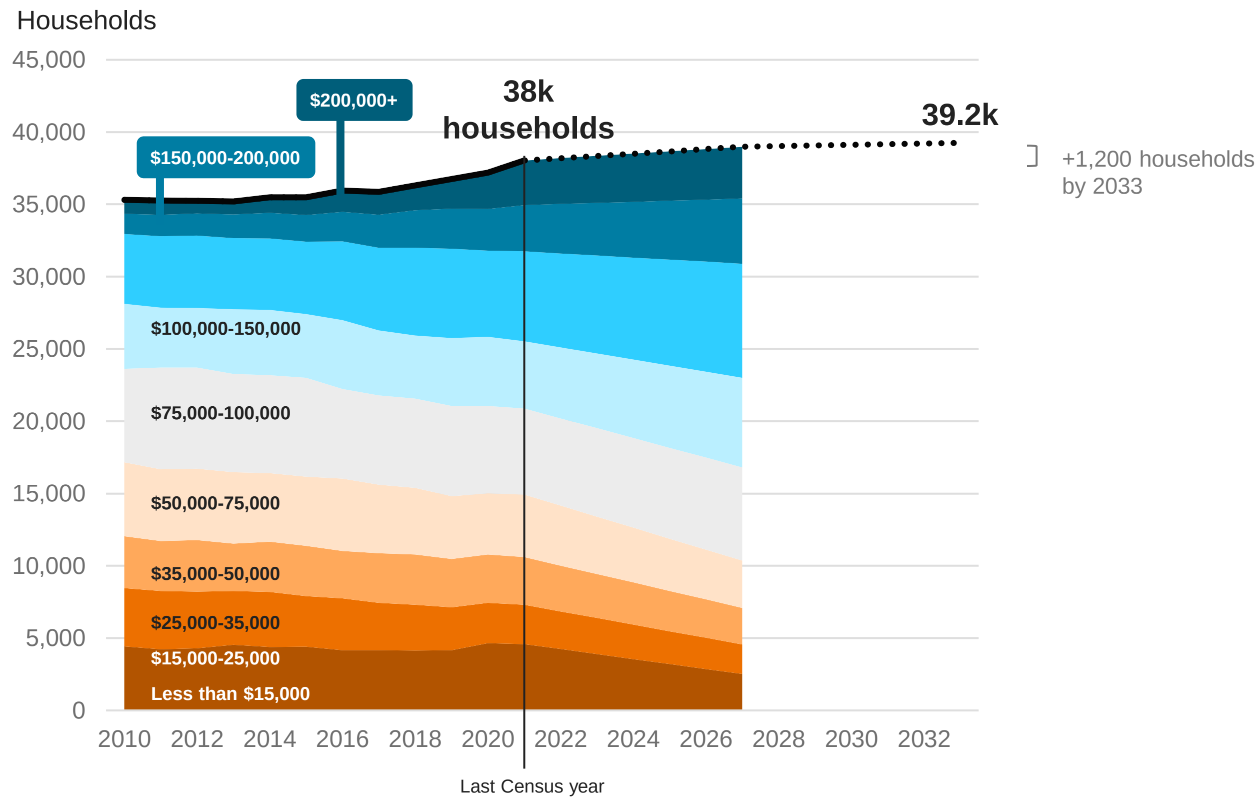
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Campbell County is expected to experience a steady population with a strong economy in the coming years, with a focus on healthcare and manufacturing industries.

Campbell County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



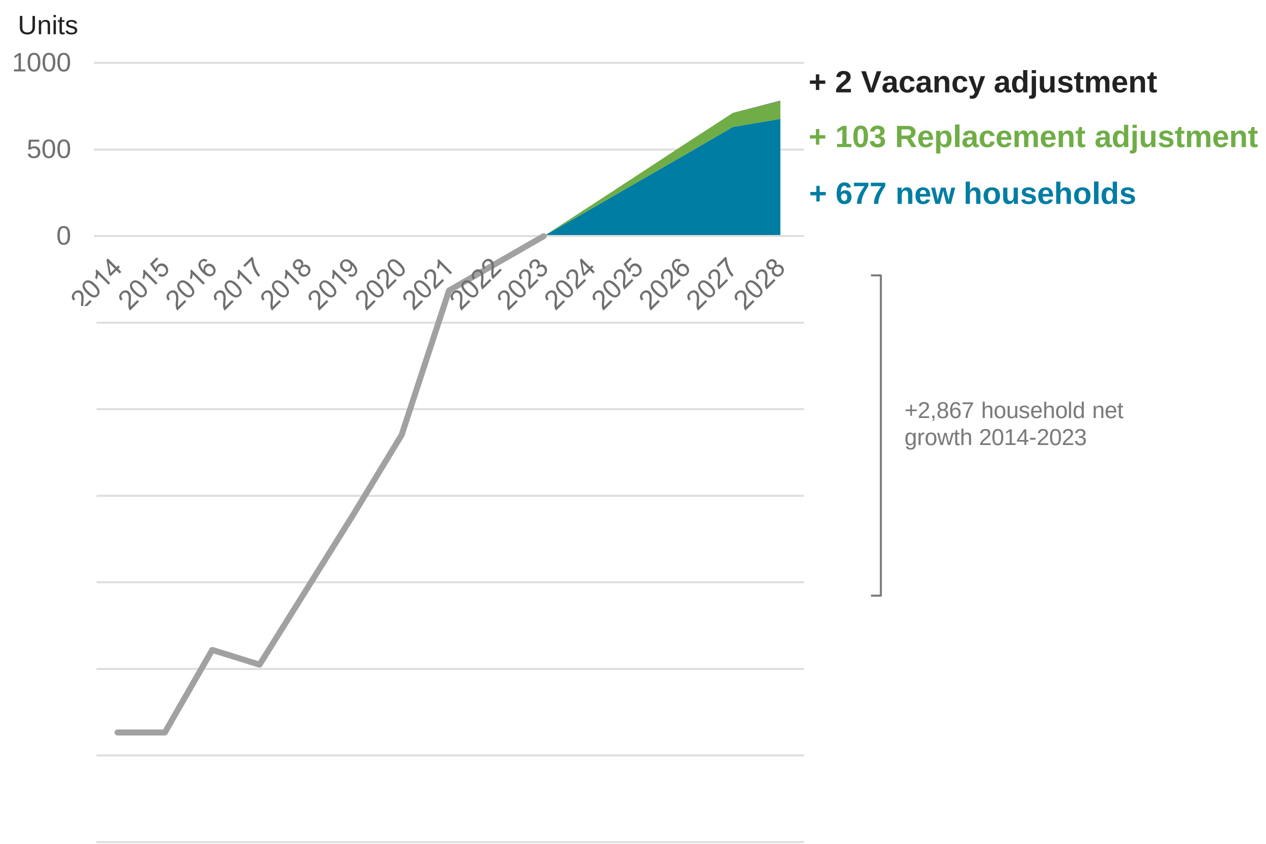
Production needs

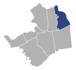
This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **782 units**

Source: ACS, ESRI, Woods & Poole





Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

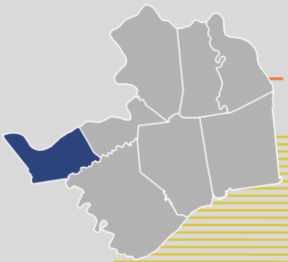
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

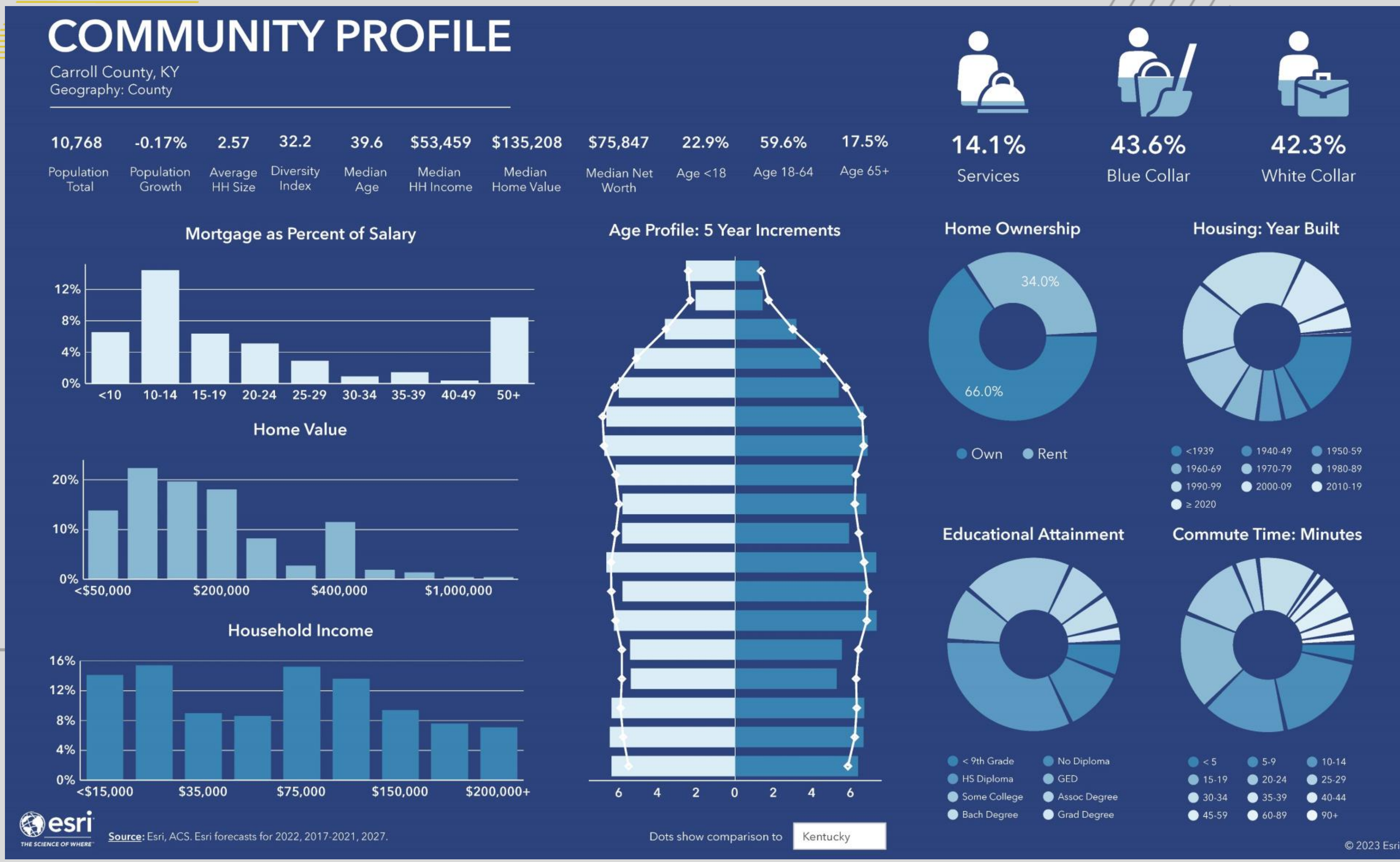
Maximum monthly housing cost	*Rent*				*Own*				
	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	7	6	3	1	0	1	1	0	
$521	5	5	3	1	0	1	1	0	
$729	6	7	3	1	0	1	2	1	<60% AMI
$1,042	10	12	6	2	0	3	6	2	
$1,563	18	23	14	3	1	6	16	7	
$2,083	12	17	12	3	1	5	20	12	
$3,125	17	30	26	10	2	11	49	41	60-80% AMI
$4,167	9	19	16	6	1	8	41	54	80-120% AMI
More than $4,167	7	17	13	10	2	9	44	72	>120% AMI

Notes:

- *.Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $103,600*



Carroll County



High Level Analytical Take-Aways

- **Connectivity:**
  - Carroll is relatively removed from the broader Cincinnati metropolitan region and its economic structure. Carrollton serves as a relative hub for trip ends for food, groceries, and daily errands for more rurally located residents in Owen and Gallatin counties and extending west into Switzerland and Jefferson Counties in Indiana. Walmart and a Kroger in Carrollton are anchor tenants that generate trips.

- **Economy:**
  - Carroll is a net importer of commuters for employment, drawing in blue-collar manufacturing workers from other surrounding rural counties. With specialization in chemical manufacturing, its employment base requires skilled labor that is often at a mismatch with the local labor pool, evinced in higher rates of unemployment, higher poverty and high vulnerability in the CDC social vulnerability index despite being a regional employment hub.

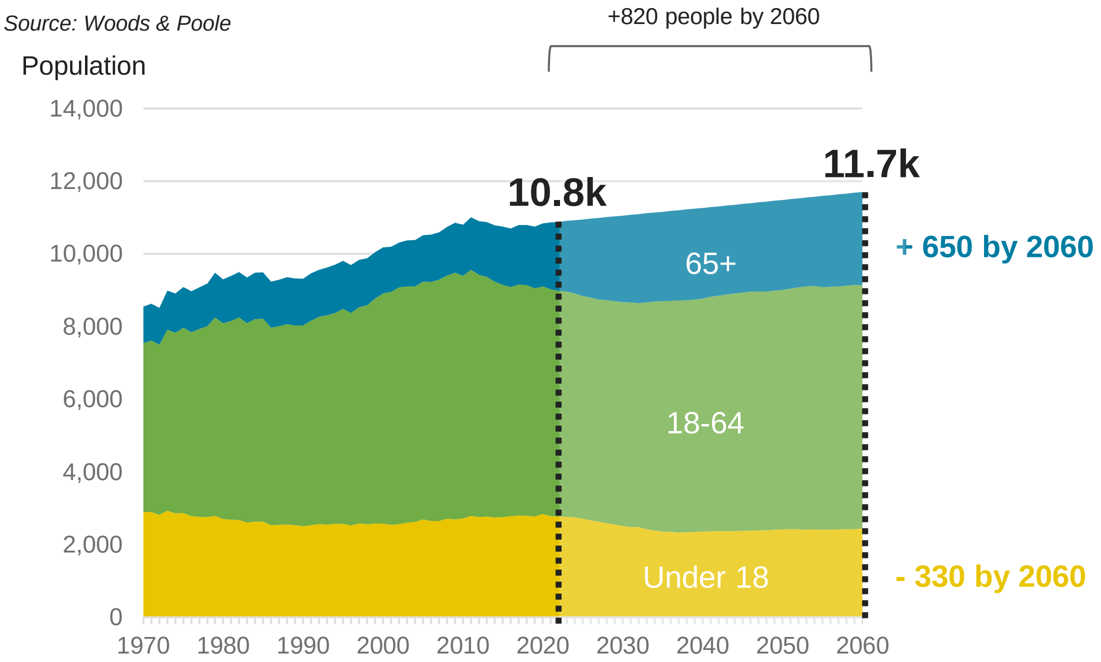
- **Housing:**
  - Carroll County's housing stock is relatively dated with little net new development in the region. Housing is relatively cheap, and in a rare circumstance, there is an abundance of cheaper manufactured housing stock relative to the incomes in the region, hence mortgages often being a small part of overall salaries compared to elsewhere. Updating the housing stock appropriate for the employment base could help retain more workers in the County.
  - There are few rental options, and those that do rent are severely rent burdened. There may be an opportunity for market-rate rental options in Carrollton in either Low-Rise or Garden variety apartment styles.
  - Long-stay housing for people coming in to do temporary work may also help address seasonal labor shortages, help attract and retain skilled workers, and provide stable housing options currently lacking in the market. Good comparable examples include Californian/Oregonian agricultural companies that provide low-cost affordable housing in the form of fully-furnished apartments for seasonal workers – an arrangement that has helped in securing skilled labor over repeat seasons. These projects have required cross-sector collaboration to secure public funding to ensure affordability. Extended-stay hotel and motel options may also fill a similar niche within the housing market. 'Man-camp' or dormitory options – single occupancy rooms with communal kitchen and bathroom facilities reminiscent of army barracks - are more appropriate for 'boom' town developments where increases in labor demand are temporary in nature (for several years), rather than seasonal. Opposition due to increased crime and increased burden on city infrastructure and public services historically drives cities to transition from man-camps appropriate for boom times to different rental solutions, including fully-furnished units or extended stay motels (see Williston, ND).

Carroll County's future is expected to be stable

Carroll County, KY is projected to experience a slight increase in population until 2060, with a decrease in the number of children.

Population, by age group

Source: Woods & Poole



Utilities, Construction, and Manufacturing are projected to continue to account for a large share of Carroll's jobs

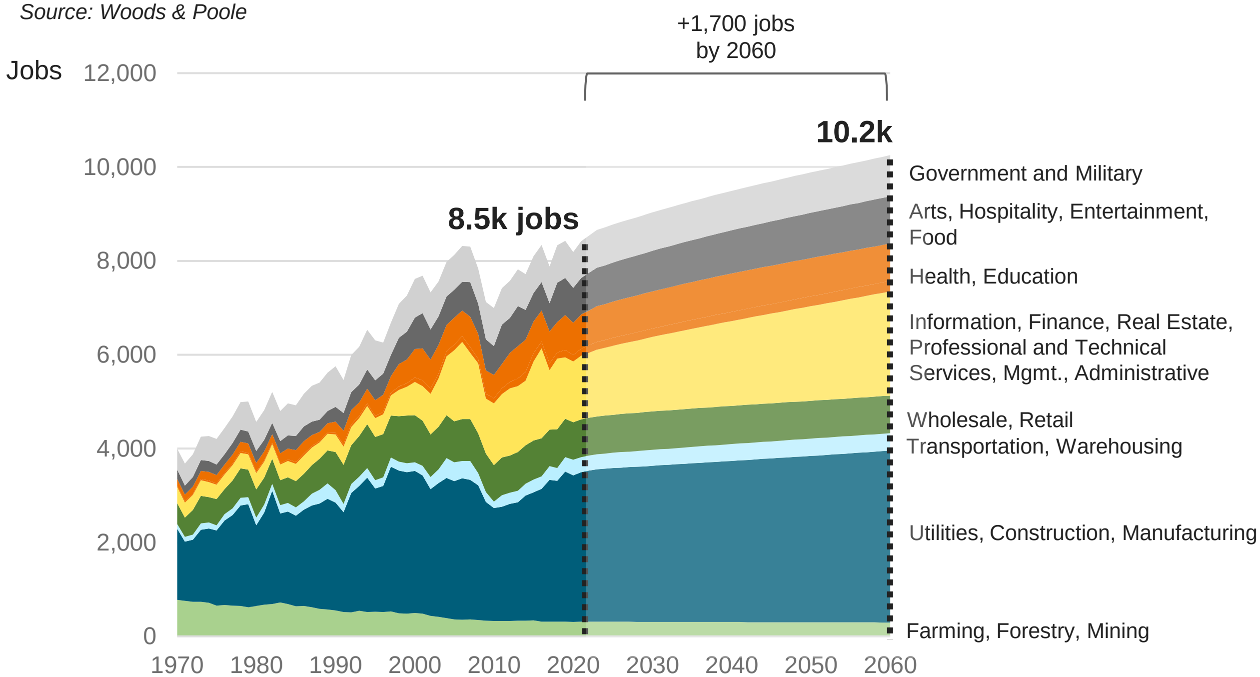
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



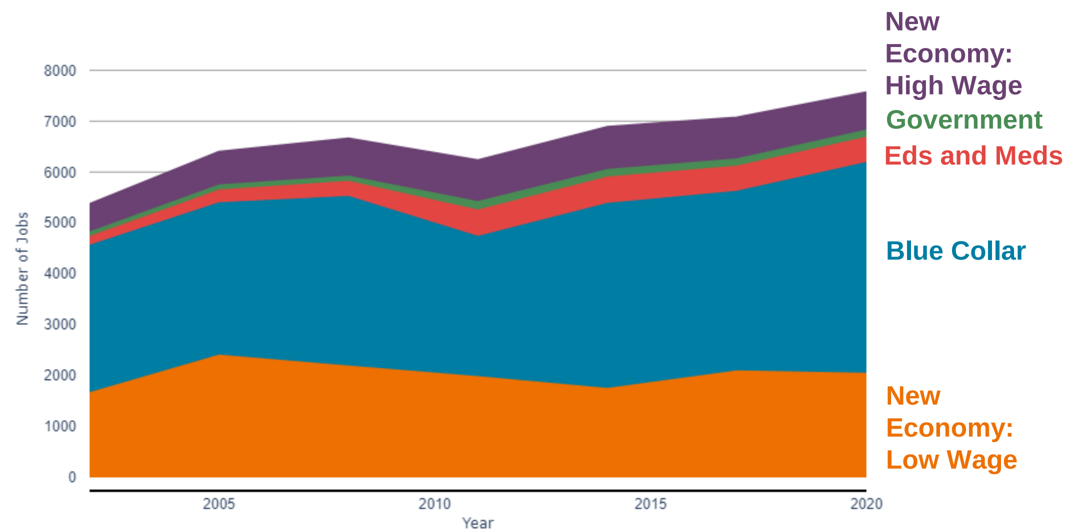
A Chemical Manufacturing Town

Carroll County contains a smaller economic base that revolves around the Chemical Manufacturing firm – PMC Organometallix – which consolidated its Cincinnati operations in Carrollton. Manufacturing wages are much stronger than New Economy service sector jobs, and provide some effective demand for service positions.

Carrollton operates as a smaller employment hub for residents in both Kentucky and eastern counties in Indiana. It is much more tightly integrated into these counties than the Cincinnati metro-region, evinced by the few commuters either in or out of the county from other NKADD areas or Ohio counties.

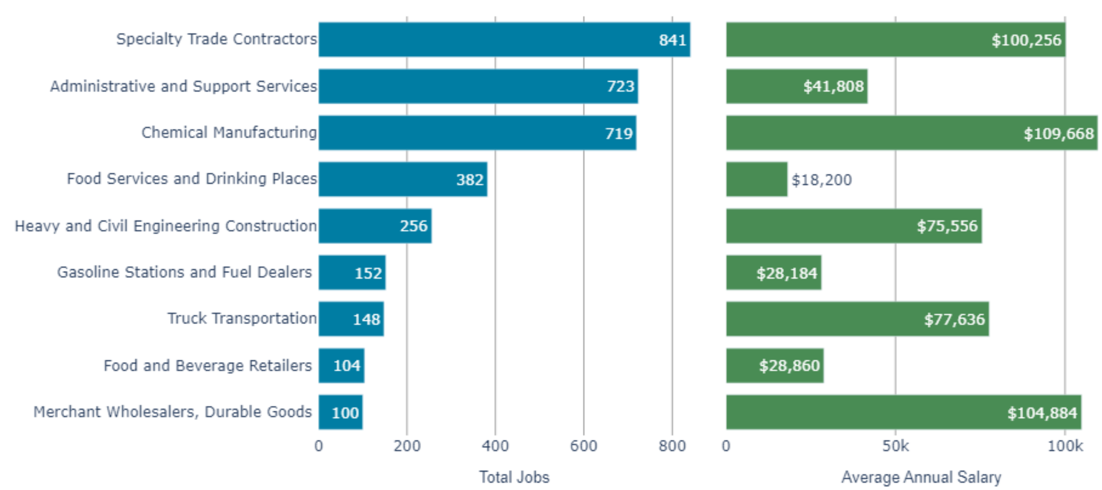
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

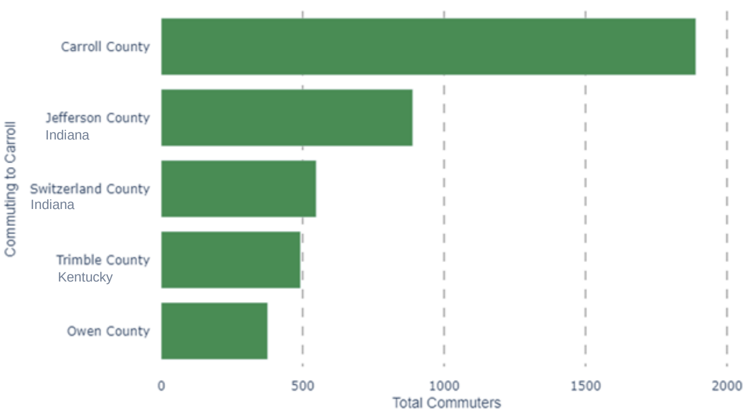


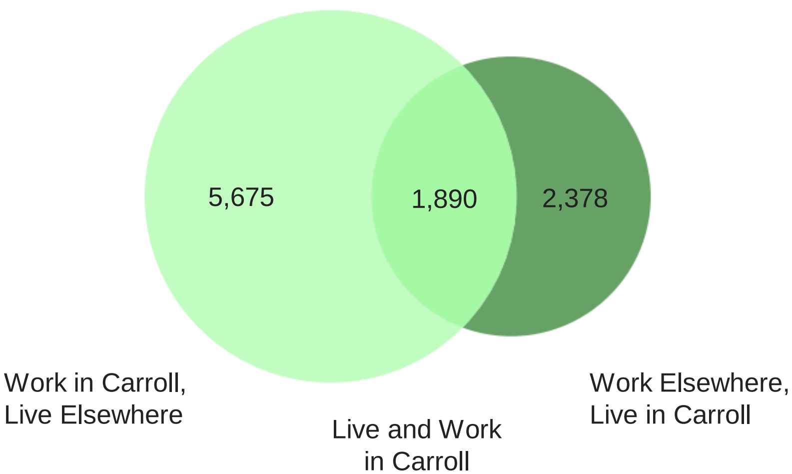
Carroll County Imports Manufacturing Labor

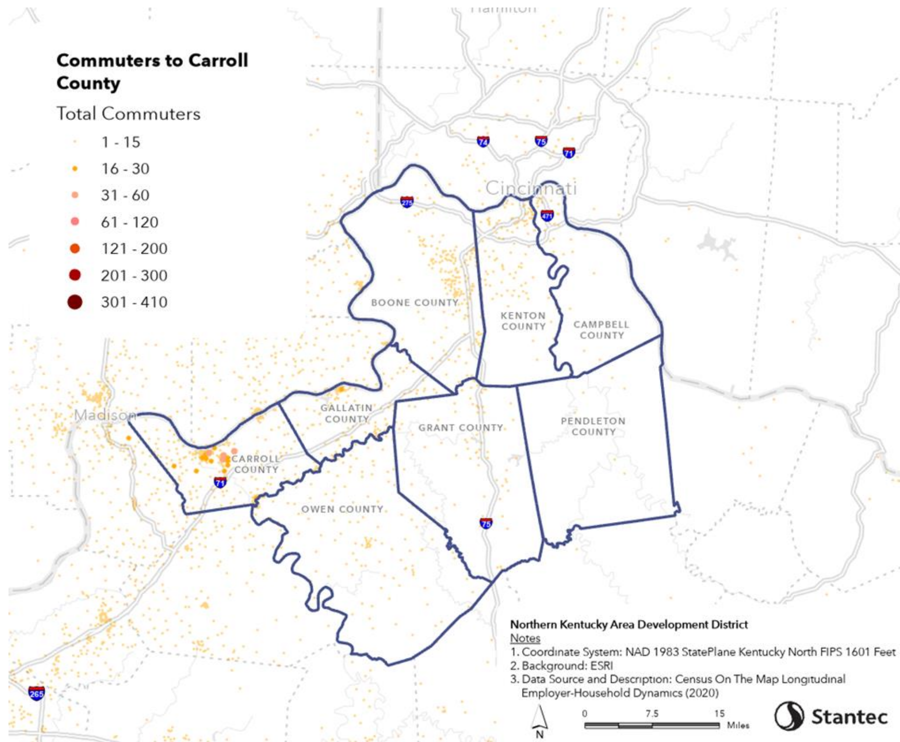
Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020







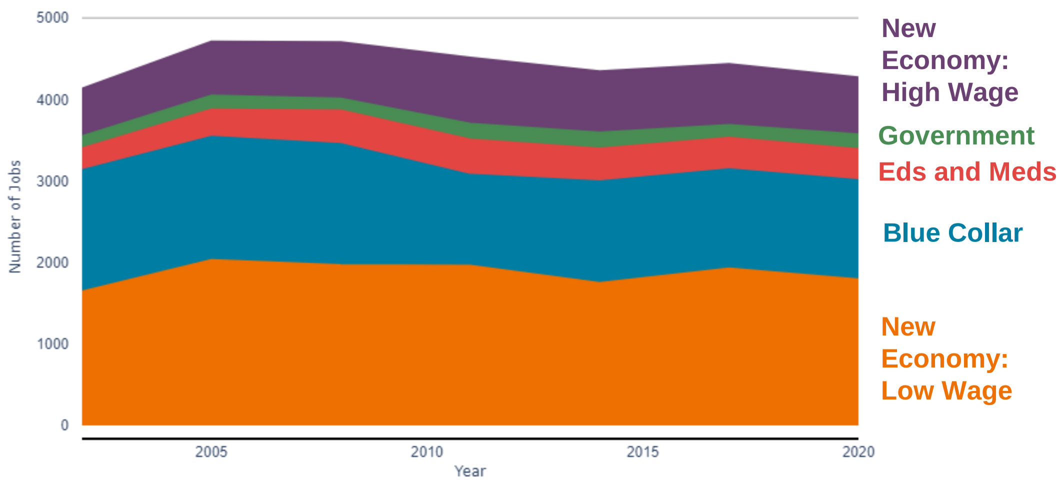
Carroll County: Work Locally, But Less Blue Collar

Carroll County is a net importer of workers for its industrial base. Even as the chemical manufacturing industry grows, Carroll's share of people working in the Blue Collar sector has declined. This would indicate that housing developers have not targeted Carroll for new development, with surrounding counties instead filling the growing labor demand.

Compared to jobs in Carroll, a higher share of Carroll residents work in New Economy: Low Wage and New Economy: High Wage jobs located in Boone, Jefferson County/Louisville (KY), and Gallatin counties.

County Residents: Industry Sector Employed

Source: LEHD, 2002-2020

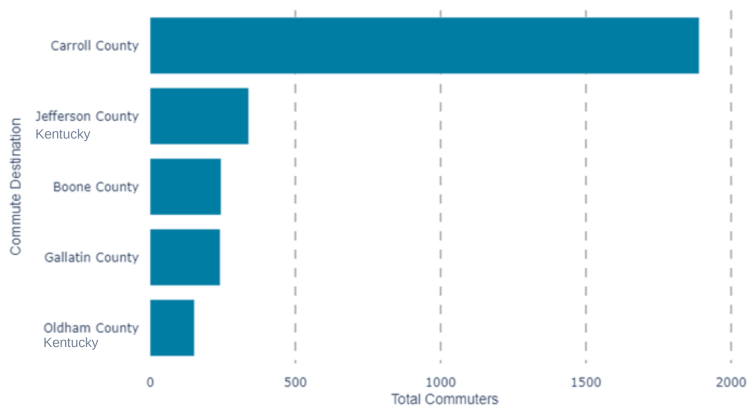


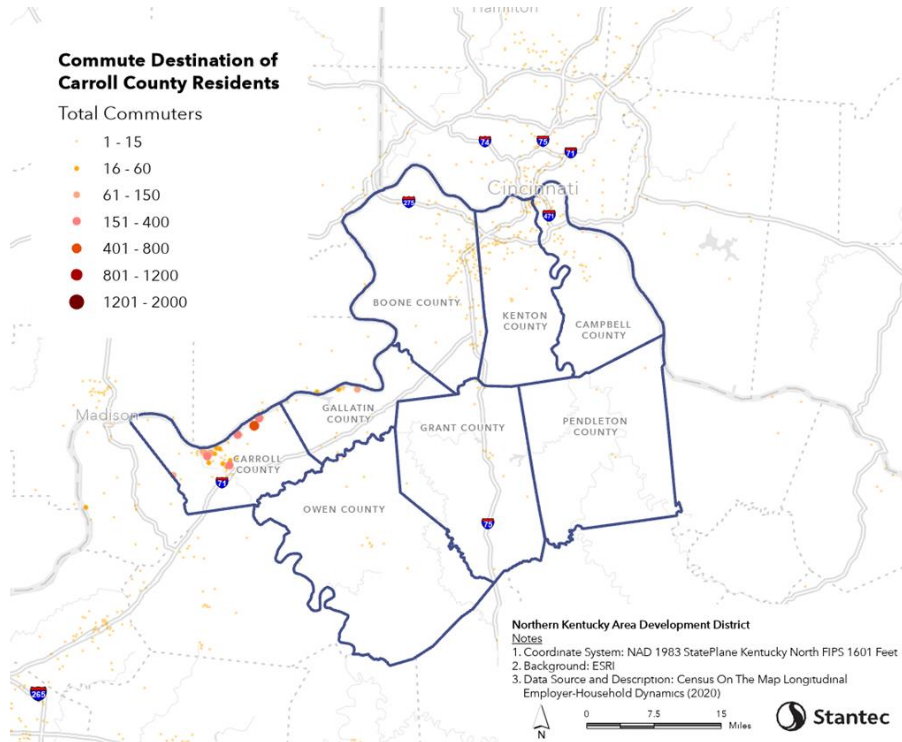
Carroll County: Most work local

Chart and map of work locations for county residents

County Residents: Commute Destination

Source: LEHD, 2020





Carroll is relatively balanced but has a deficiency of smaller ownership units and low-income rental units.

Carroll could use more supportive affordable rental housing as well as investment in new housing that meets the needs of the middle-income residents.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	123	167	91	17	16	56	107	47
$15,000-24,999	$521	104	88	42	18	15	65	174	74
$25,000-34,999	$729	46	115	66	8	12	63	160	50
$35,000-49,999	$1,042	26	55	45	9	14	71	186	56
$50,000-74,999	$1,563	22	71	75	21	18	105	262	115
$75,000-99,999	$2,083	20	33	52	18	5	39	183	70
$100,000-149,999	$3,125	14	16	20	13	3	41	229	163
$150,000-199,999	$4,167	3	0	10	10	0	9	55	75
$200,000 or more	--	5	10	9	6	0	8	33	85

Carroll is relatively balanced but has a deficiency of smaller ownership units and low-income rental units.

Housing supply is situated in very low cost ownership options, as much of the housing stock is both old and a bit run-down. Manufactured housing remains a dominant use type, although some new development targets middle to middle-income homeowners.

Due to a lack of rental housing as a whole, pressure on rents is high. Most rental units are manufactured homes or single family homes leased out to individuals.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	25	294	325	48
$15,000-24,999	$521	55	0	0	0	16	219	434	72
$25,000-34,999	$729	83	20	0	0	4	90	336	89
$35,000-49,999	$1,042	2	43	23	4	4	60	312	95
$50,000-74,999	$1,563	3	65	62	0	2	36	212	115
$75,000-99,999	$2,083	15	218	313	15	1	4	68	68
$100,000-149,999	$3,125	3	52	49	87	3	8	24	32
$150,000-199,999	$4,167	0	0	0	4	0	0	8	6

Carroll is relatively balanced but has a deficiency of smaller ownership units and low-income rental units.

Carroll could use more subsidized affordable rental housing as well as investment in new housing that meets the needs of the middle-income residents.

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-123	-167	-91	-17	9	238	218	1
$15,000-24,999	$521	-103	-88	-42	-18	1	154	260	-2
$25,000-34,999	$729	-43	-114	-66	-8	-8	27	176	39
$35,000-49,999	$1,042	-25	-50	-42	-8	-10	-11	126	39
$50,000-74,999	$1,563	-19	-6	-13	-21	-16	-69	-50	0
$75,000-99,999	$2,083	-5	185	261	-3	-4	-35	-115	-2
$100,000-149,999	$3,125	-11	36	29	74	0	-33	-205	-131
$150,000-199,999	$4,167	-3	0	-10	-6	0	-9	-47	-69
$200,000 or more	--	0	0	0	0	0	0	0	0

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: New housing is concentrated in single-family homes in the lower-middle incomes

* 'New' Development is post-2000

New single-family homes are relatively distributed across Carroll County, with a few new subdivisions of manufactured homes/manufactured style single family homes outside of Carrollton, and upper-market single family homes off KY-36. Despite pent up demand for newer housing types, new housing development lack the modern amenities and styles of development in Boone, Grant, Kenton, and Campbell counties.

Despite the concentration of jobs within the County – especially in well paying blue-collar manufacturing, new development is yet to catch up.

		Manufactured Home				Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	1	10	36	0	4	13	25	8
$15,000-24,999	$521	0	1	7	0	2	18	72	13
$25,000-34,999	$729	0	1	3	2	0	4	60	11
$35,000-49,999	$1,042	0	0	0	0	3	11	72	21
$50,000-74,999	$1,563	0	0	0	1	1	11	61	35
$75,000-99,999	$2,083	0	0	0	0	0	1	28	25
$100,000-149,999	$3,125	0	0	0	0	1	1	5	11
$150,000-199,999	$4,167	0	0	0	0	0	0	3	3

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

New Rental: Not much!

* 'New' Development is post-2000

New rental properties consist of single-family rentals of manufactured and detached homes. Despite an increase in employment in the County, new rentals aimed for blue-collar workers are lacking. There is a need for new rental housing across both full-time market rate rentals and rental development types more appropriate for seasonal/temporary workforces such as extended stay hotels or fully-furnished, affordable rentals.

		Manufactured Home				Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
$35,000-49,999	$1,042	2	3	3	0	0	1	0	0
$50,000-74,999	$1,563	0	2	11	0	0	1	0	0
$75,000-99,999	$2,083	0	1	11	0	2	9	41	3
$100,000-149,999	$3,125	0	0	0	1	0	5	13	20
$150,000-199,999	$4,167	0	0	0	0	0	0	0	1

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Development Types (Typical Examples)

Manufactured Housing

10 Sam Street, Carrollton, KY 41008
Manufactured Homes, Larger Lots

1-3 Bedrooms

Ranges from $100,000-150,000
($844 month cost of ownership)

Single Family

5 Springmeadow Drive, Carrollton KY

4 Bedrooms

Range from $300,000-$400,000
($2,360 month cost of ownership)

Carroll County's population is expected to remain relatively constant for the coming years

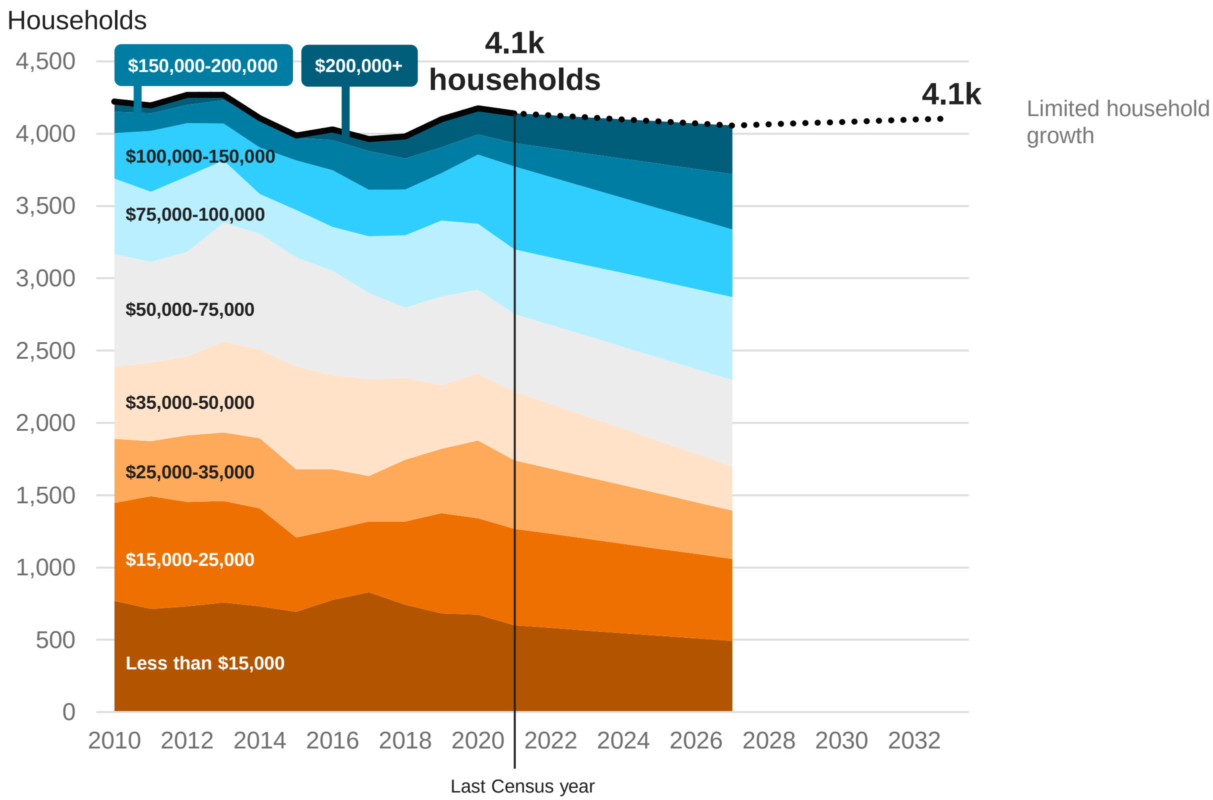
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Carroll County has a stable population that has slightly fluctuated for the last 10 years.

Carroll County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

Housing production need forecast

Source: ACS, ESRI, Woods & Poole

Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

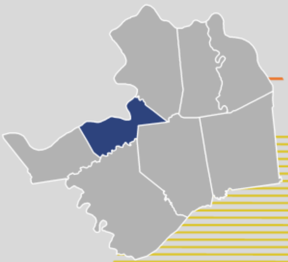
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

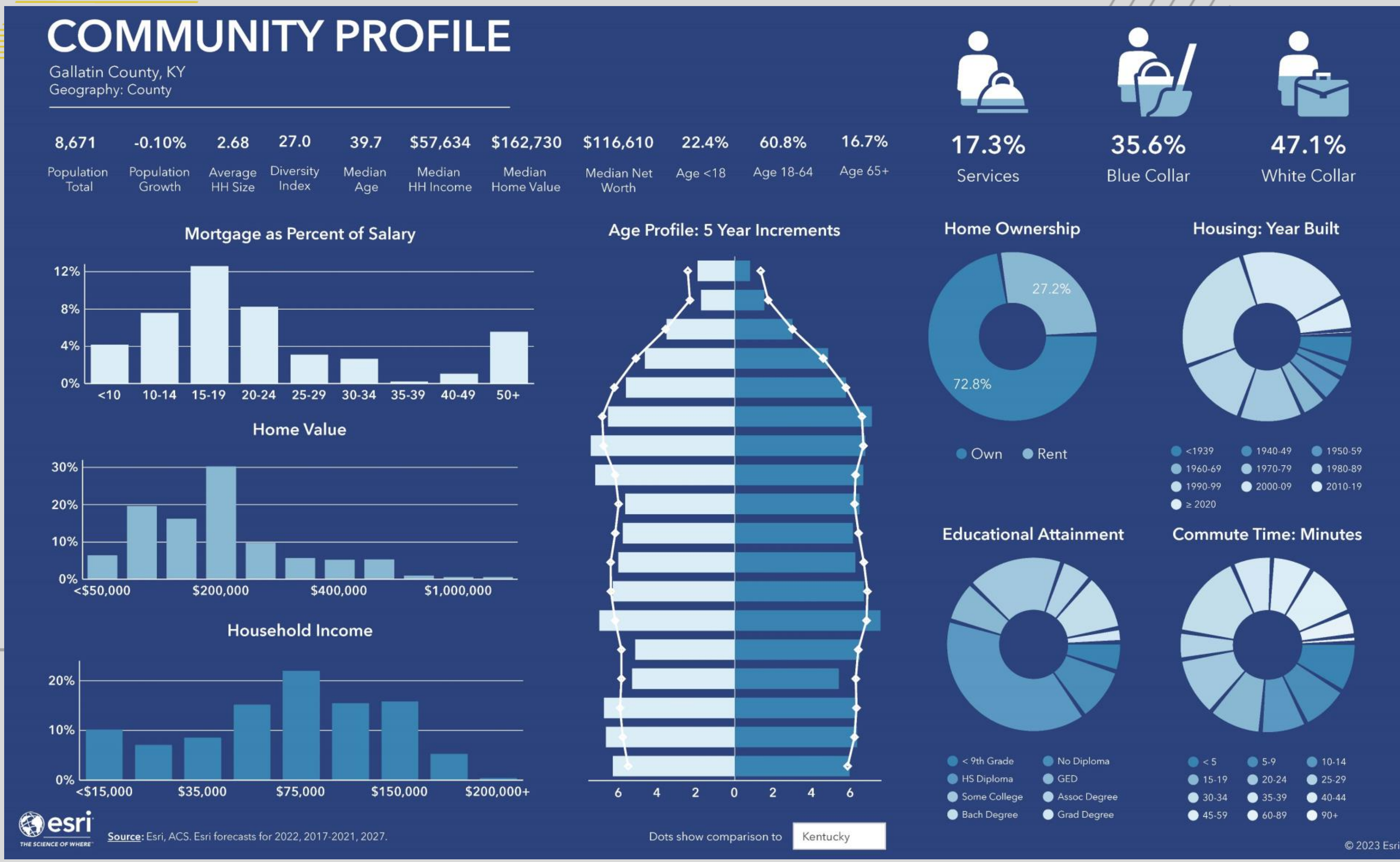
Maximum monthly housing cost	*Rent* 1BR	*Rent* 2BR	*Rent* 3BR	*Rent* 4BR+	*Own* 1BR	*Own* 2BR	*Own* 3BR	*Own* 4BR+	
$313	0	0	0	0	0	0	0	0	<60% AMI
$521	0	1	0	0	0	0	0	0	
$729	0	0	0	0	0	0	0	0	
$1,042	0	1	0	0	0	0	0	0	
$1,563	1	1	0	0	0	0	0	0	60-80% AMI
$2,083	0	0	0	0	0	0	1	0	80-120% AMI
$3,125	0	1	0	0	0	0	1	1	>120% AMI
$4,167	0	0	0	0	0	0	1	1	
More than $4,167	0	0	0	0	0	0	0	1	

Notes:

- *The county's Area Median Income (AMI) = $58,800*



Gallatin County



High Level Analytical Take-Aways

- **Connectivity:**
    - Gallatin is not a major destination for recreational or daily trips. Beyond small groceries and dollar stores, Gallatin lacks major grocery shopping centers, with residents instead likely to commute to Carrollton.

- **Economy:**
    - The declining use of the Kentucky Speedway has detrimentally impacted the employment base. Gallatin residents often commute elsewhere for work, and the region's housing stock attracts those interested in more rural living options and hobby farms, despite not being employed in primary production sectors. Poverty indicators are higher in the northern part of the county – an in between region outside of both Carrollton's employment base and Boone.

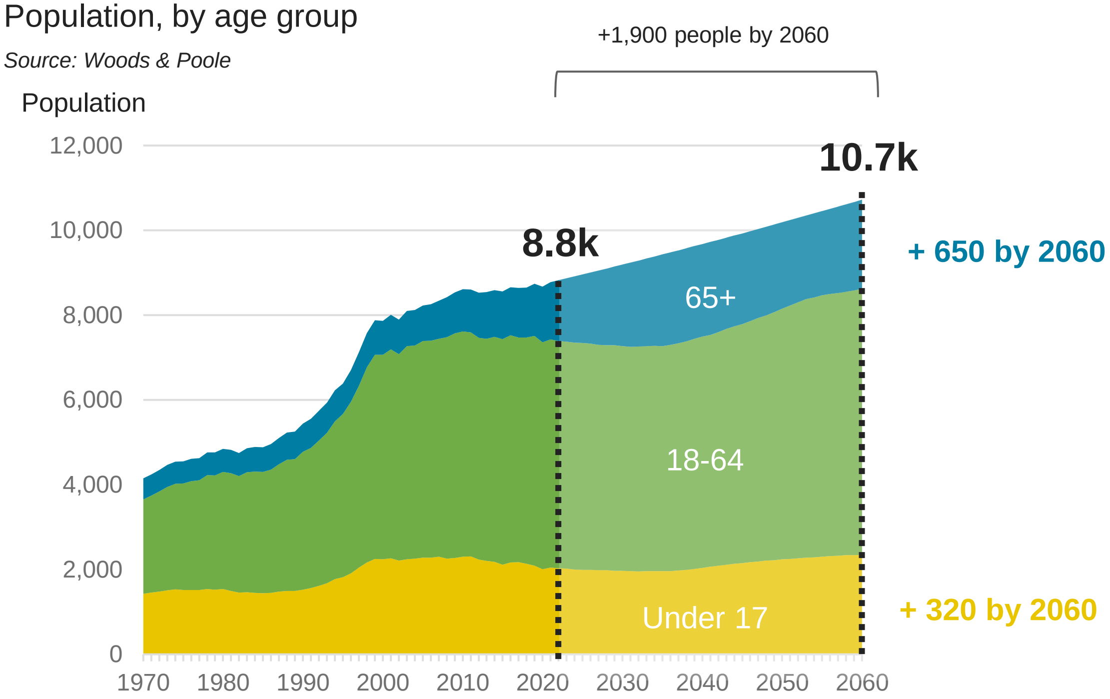
- **Housing:**
    - Gallatin's housing stock is geographically disbursed, with no large suburban tract housing developments. Housing is relatively affordable compared to incomes, however lower-income households struggle to find affordable rental options. Opportunity exists for new housing to serve either Carroll or Boone County's growing employment base across income spectrums, however Gallatin's 'in the middle' location means either Carroll or northern Grant may prove better locations for additional suburban subdivisions or rental housing development.

Gallatin is a smaller county but is growing

Gallatin County, KY is projected to experience a steady increase in population until 2060. The county is expected to become more diverse, with a higher percentage of Hispanic and Asian residents.

Population, by age group

Source: Woods & Poole



Gallatin's job growth is projected to be more significant than that of similarly-sized counties

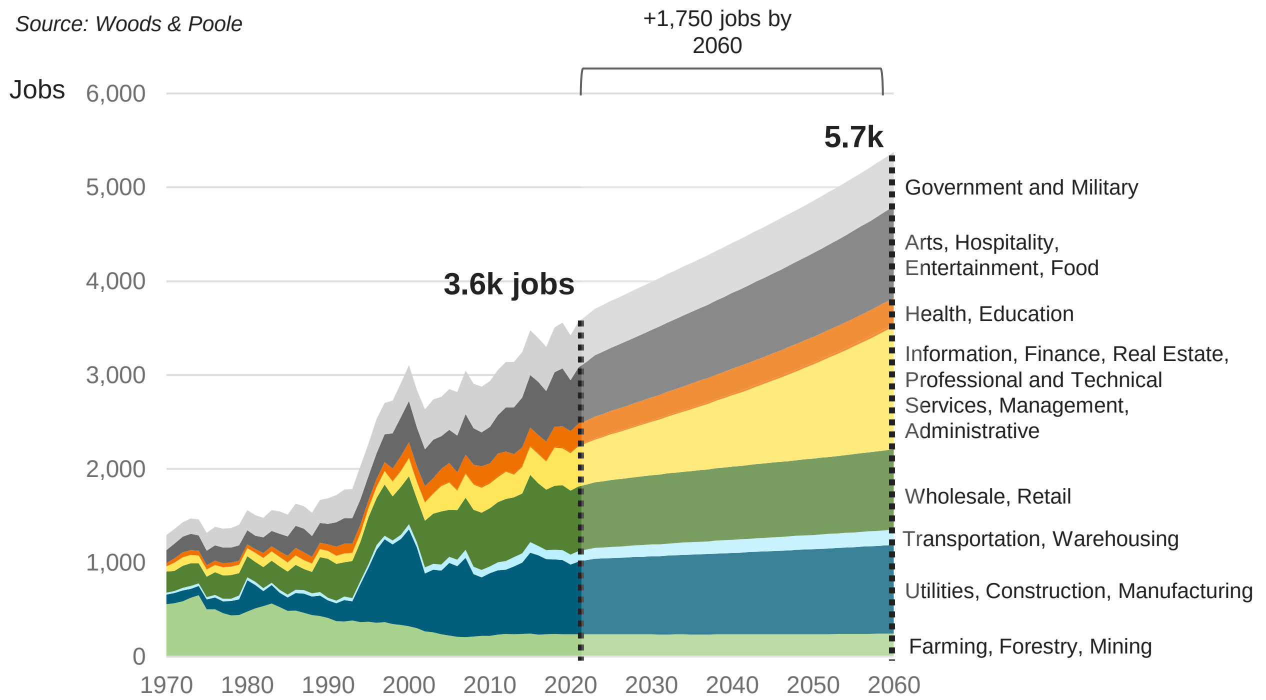
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



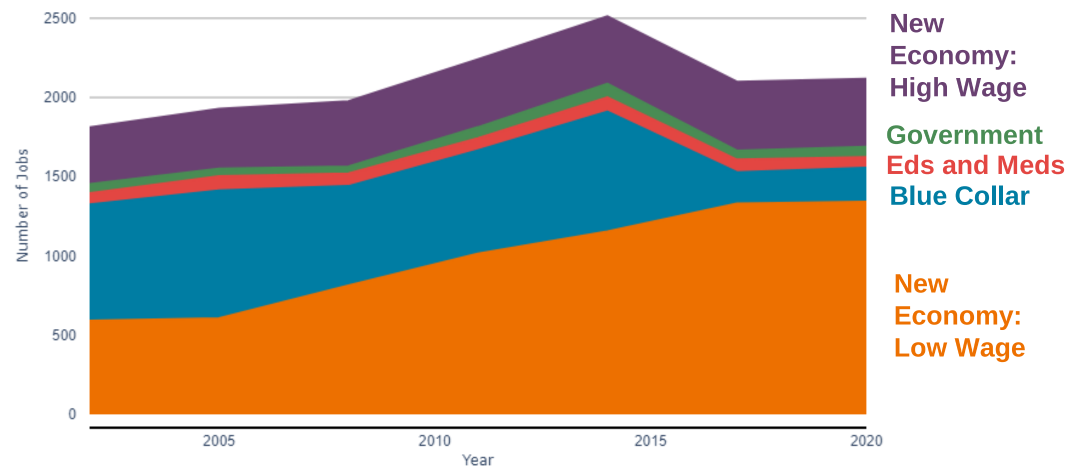
Gallatin County: Recent Job Loss

Gallatin is not a large employment center, with service-sector retail, grocery, and hospitality the main employment base in New Economy: Low Wage jobs. Professional jobs include local accountants and lawyers. Agriculture remains a small but active sector, but not a large employment base.

During the early to mid 2000s, the Kentucky Speedway – built in 2001 – operated as an employment hub. However, its use has slowly declined as both IndyCar and NASCAR have withdrawn major circuit races.

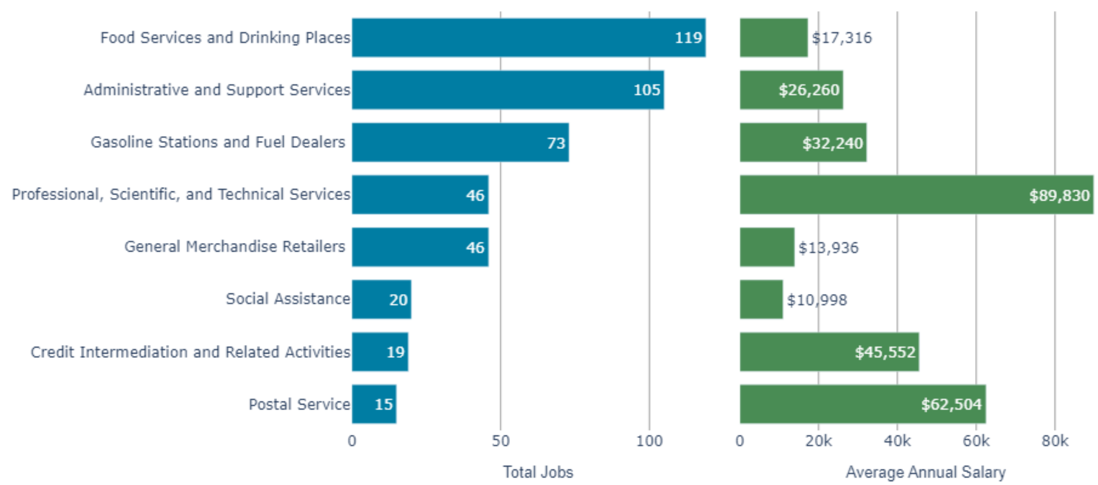
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

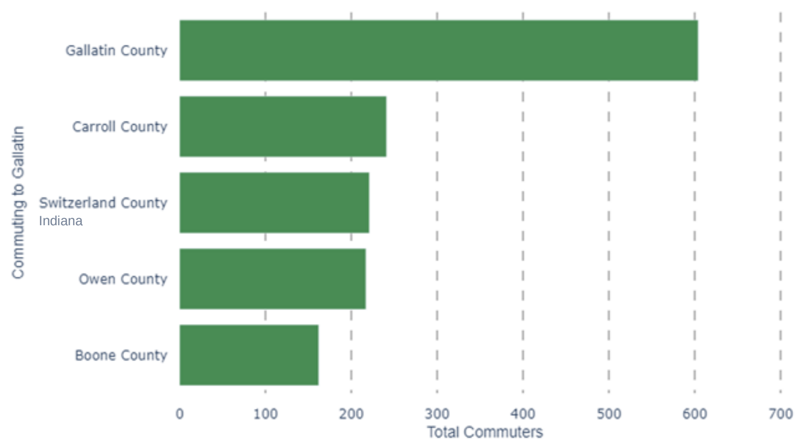


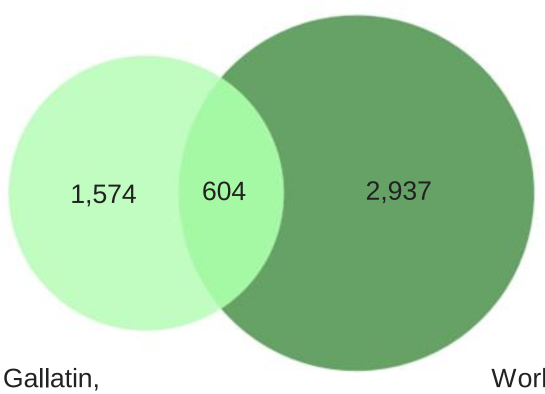
Gallatin's economic base lacks a large economic driver, and majority work elsewhere.

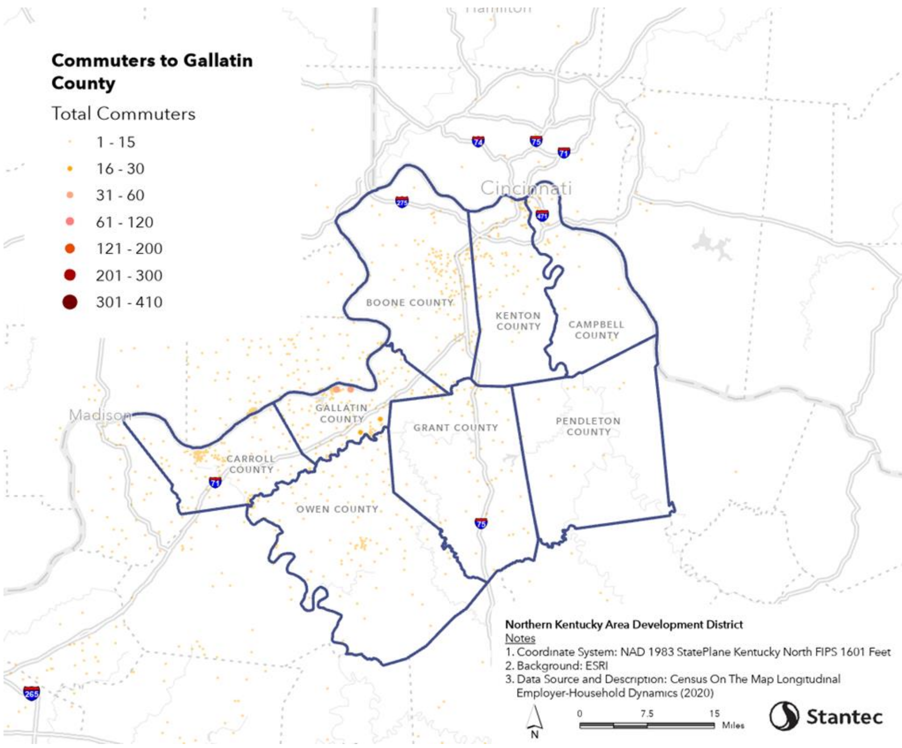
Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020







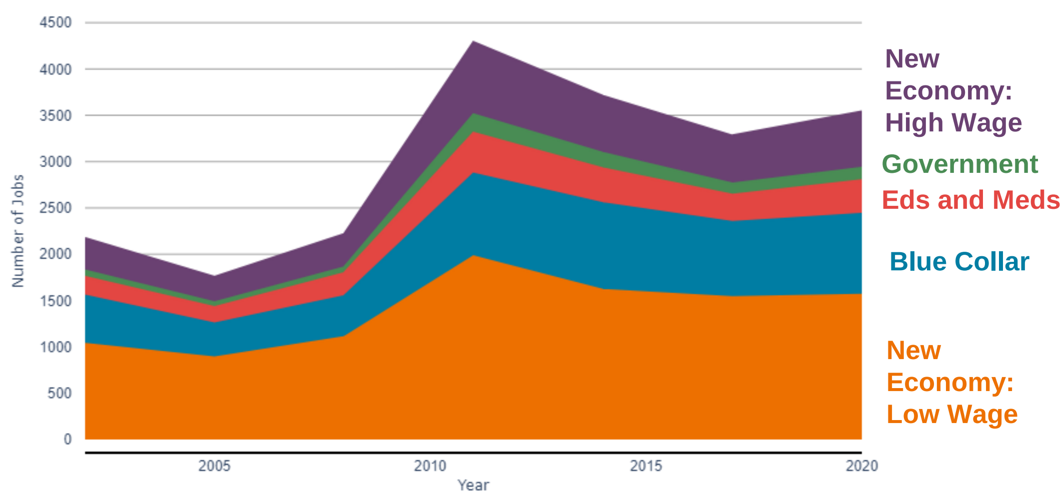
Gallatin County: Commuting North and South

Gallatin County is a net exporter of labor, with fewer jobs than employed persons. The rise of the Kentucky Speedway and NASCAR/IndyCar popularity drove sharp growth in employment, only to see those peaks decline as the Speedway's integration into the major circuits decreases. The most major employment declines have been in management and office/administrative occupations.

As a result, people living in the region are increasingly commuting out to blue collar jobs south in Carroll county and into low wage and high wage New Economy jobs in Boone and Kenton.

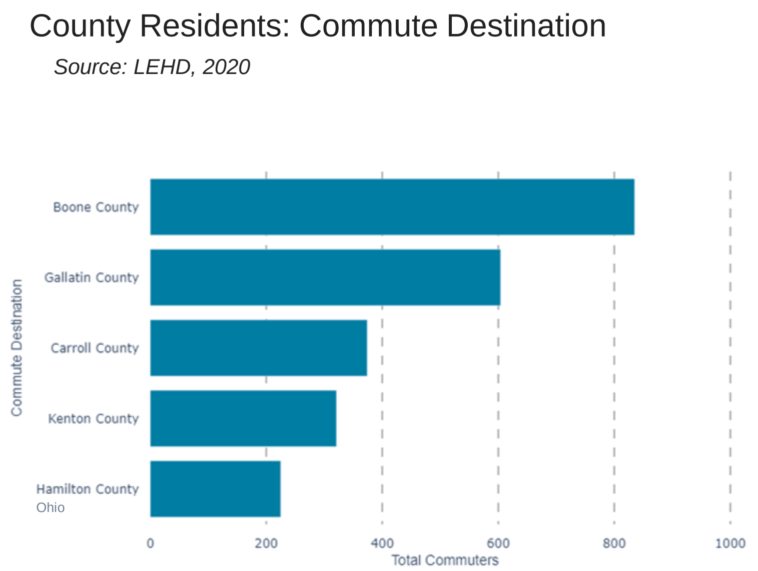
County Residents: Industry Sector Employed

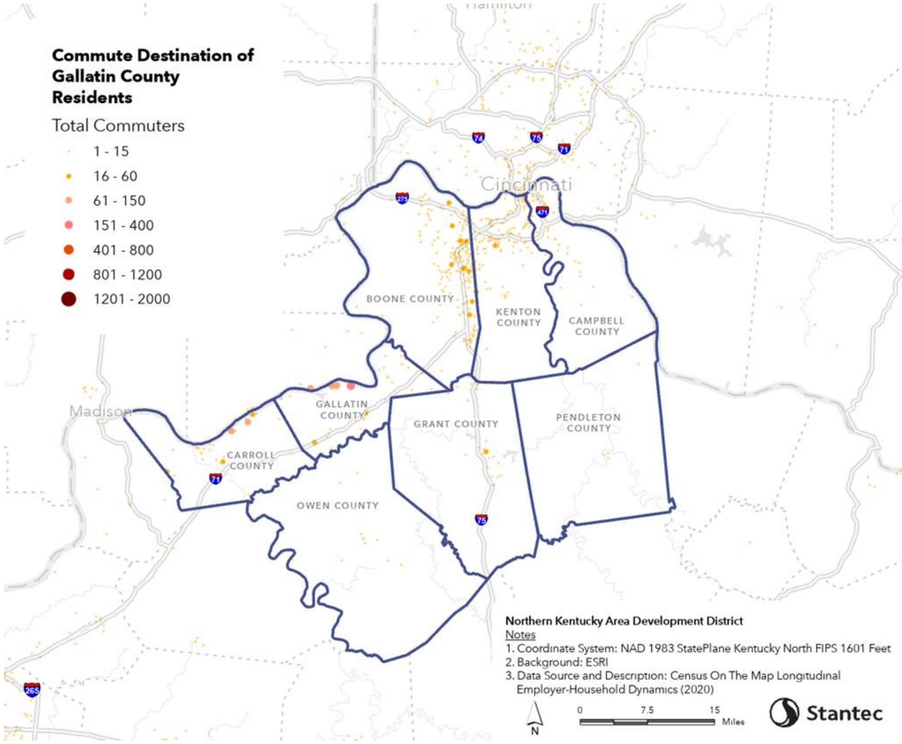
Source: LEHD, 2002-2020



Gallatin County: Commuting North and South

Chart and map of work locations for county residents





Gallatin needs 1- and 2-BR ownership housing for households earning $60k to $170k.

Gallatin's home values are low compared to the growing incomes in the region. New housing should target social support (subsidized low-income housing) as well as small middle-income earning households.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	72	97	62	7	7	45	94	24
$15,000-24,999	$521	44	45	17	4	14	52	117	32
$25,000-34,999	$729	46	56	22	5	8	36	113	41
$35,000-49,999	$1,042	15	37	34	4	12	69	227	67
$50,000-74,999	$1,563	20	57	61	11	11	71	274	99
$75,000-99,999	$2,083	10	30	17	8	6	38	169	95
$100,000-149,999	$3,125	6	7	10	6	3	28	203	159
$150,000-199,999	$4,167	1	3	2	4	1	2	45	46
$200,000 or more	--	2	1	3	1	1	2	25	90

Gallatin needs 1- and 2-BR ownership housing for households earning $60k to $170k.

Gallatin's home values are low compared to the growing incomes in the region. New housing should target social support (subsidized low-income housing) as well as small middle-income earning households.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	0	6	21	5
$15,000-24,999	$521	10	0	0	0	1	9	25	2
$25,000-34,999	$729	166	119	1	0	0	10	39	5
$35,000-49,999	$1,042	0	25	44	0	4	53	189	9
$50,000-74,999	$1,563	6	144	269	6	33	257	1,216	198
$75,000-99,999	$2,083	6	49	181	26	4	42	187	86
$100,000-149,999	$3,125	8	4	6	21	1	12	59	18
$150,000-199,999	$4,167	0	0	0	0	1	2	12	6
$200,000 or more	--	0	0	0	0	1	2	3	5

Gallatin needs 1- and 2-BR ownership housing for households earning $60k to $170k.

Gallatin's home values are low compared to the growing incomes in the region. New housing should target social support as well as small middle-income earning households.

Opportunity exists to expand housing options for middle-income earners who work either in Boone or Carroll Counties. The main constraint is the relative distance in either direction to major employment hubs, with Carroll County a more logical place for increased development, and Grant county and southern Boone working vigorously to fill housing needs for lower-income households based in Boone's labor force.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-72	-97	-62	-7	-7	-39	-73	-19
$15,000-24,999	$521	-40	-45	-17	-4	-13	-43	-92	-30
$25,000-34,999	$729	-40	-48	-21	-5	-8	-26	-74	-36
$35,000-49,999	$1,042	-15	-12	-4	-4	-8	-16	-38	-58
$50,000-74,999	$1,563	-14	87	208	-5	22	186	942	99
$75,000-99,999	$2,083	-4	19	164	18	-2	4	18	-9
$100,000-149,999	$3,125	2	-3	-4	15	-2	-16	-144	-141
$150,000-199,999	$4,167	-1	-3	-2	-4	0	0	-33	-40
$200,000 or more	--	-2	-1	-3	-1	0	0	-22	-85

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: New housing is concentrated in single-family homes in the lower-middle incomes and new Manufactured Homes

* 'New' Development is post-2000

New Construction in Gallatin largely builds adjacent to County Roads and Highways, with few planned subdivisions. New houses are still relatively expensive, especially in relation to incomes.

Many homes are also built on hobby farms and large parcels, with commuters traveling into Boone and Kenton for higher-income jobs.

No new workforce housing or more affordable subdivisions are present, despite the opportunity to absorb growth out of southern Boone County and the blue-collar cluster in Carrollton.

		Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	2	0	0	0	2	1
$15,000-24,999	$521	1	3	0	0	0	6	1
$25,000-34,999	$729	1	4	2	0	1	7	1
$35,000-49,999	$1,042	1	8	0	0	3	26	4
$50,000-74,999	$1,563	10	93	16	9	15	235	44
$75,000-99,999	$2,083	0	2	1	1	9	79	35
$100,000-149,999	$3,125	0	0	0	0	1	14	7
$150,000-199,999	$4,167	0	0	1	0	0	5	3
$200,000 or more	--	0	0	0	0	0	1	2

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

New Rental: New housing is concentrated in single-family homes in the lower-middle incomes and new manufactured homes

* ‘New’ Development is post-2000

No new multi-family construction has been built, with only single-family homes and manufactured homes making up the current rental market. Few properties are available for rent in the county, causing renters to look to Boone or Kenton for rental opportunities. Manufactured homes are built on large single-family lots in similar positions off highways, hence the higher price range.

Potential may exist for market-rate affordable units for both Carrollton and Boone County labor markets. Glencoe and Warsaw are a 25 minutes commute from labor markets in Burlington and the airport, Florence, Carrollton, Richwood, and Walton.

		Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
$35,000-49,999	$1,042	6	9	0	0	0	0	0
$50,000-74,999	$1,563	4	32	0	0	4	15	0
$75,000-99,999	$2,083	2	8	3	0	5	19	3
$100,000-149,999	$3,125	0	0	1	1	1	2	8

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Development Types (Typical Examples)

Manufactured Housing

3915 KY-16, Glencoe, KY

3 Bedroom Manufactured Home

Price:
$140,000
($950 month cost of ownership)

Single Family

1360 Old Sparta Rd, Sparta KY

3 Bedrooms

Prices:
$187,000
($1,260 month cost of ownership)

Gallatin is adding households and the upper middle-income segment

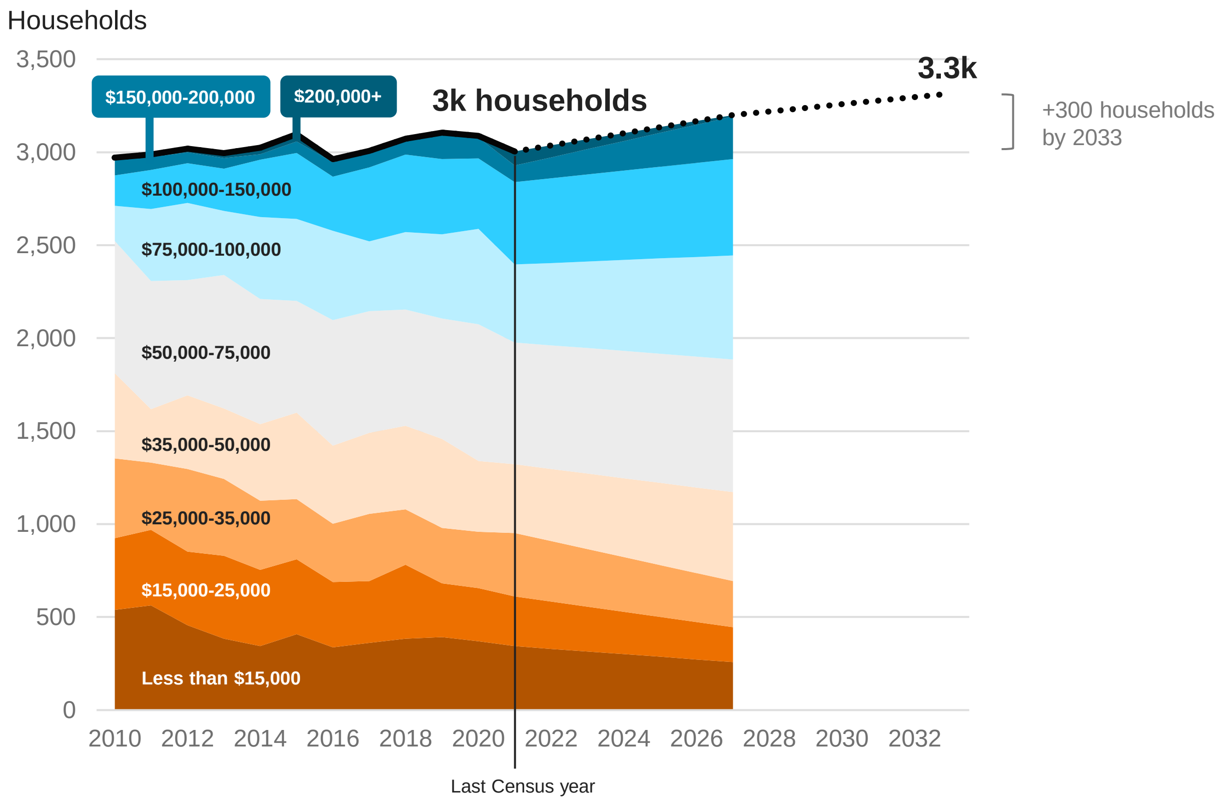
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Gallatin County is expected to see slight growth, especially in the the upper middle-income segment.

Gallatin County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

Housing production need forecast

Source: ACS, ESRI, Woods & Poole

Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

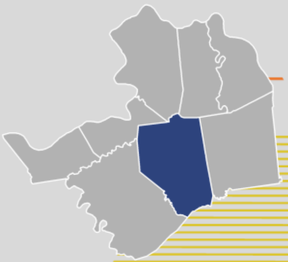
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

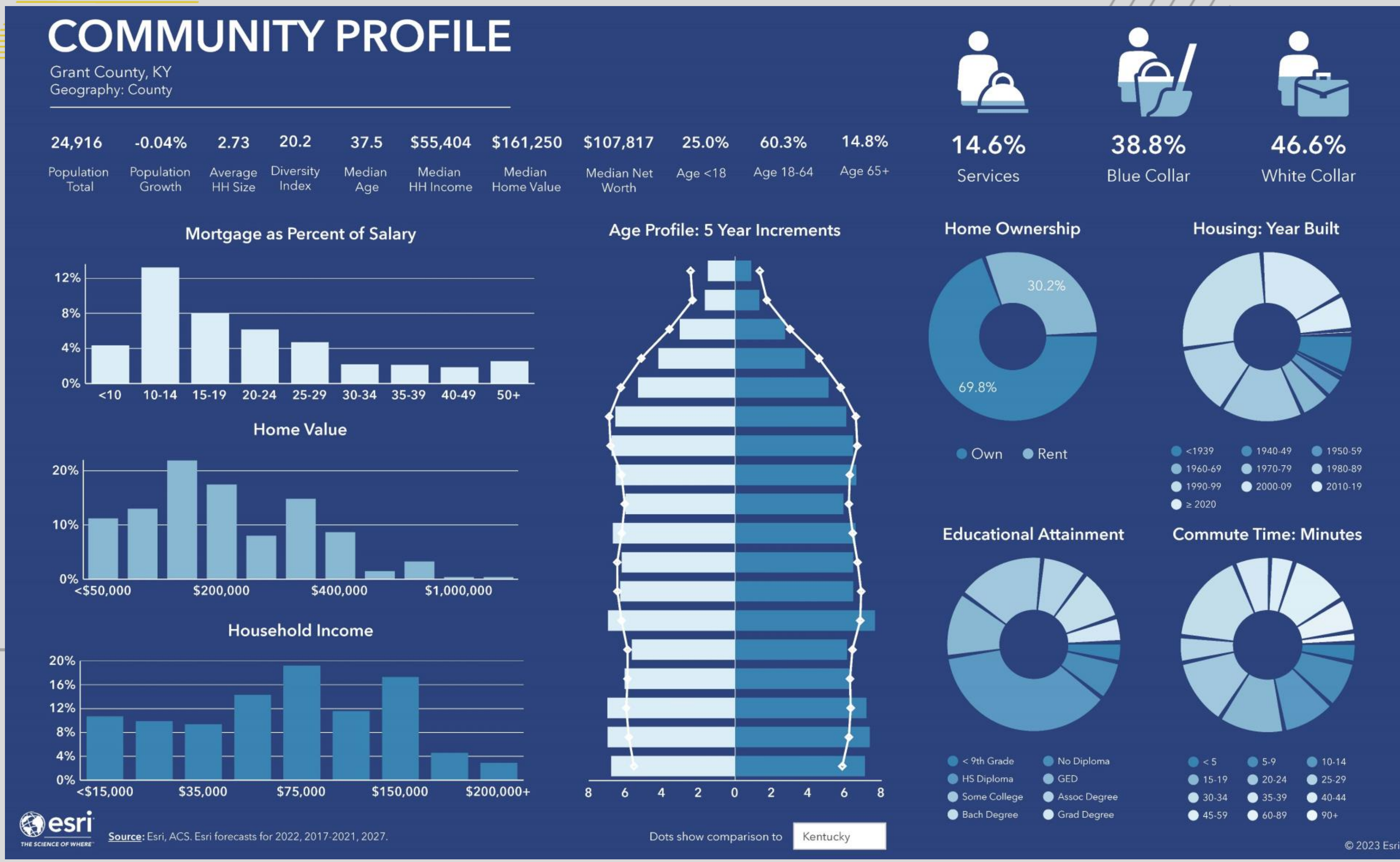
	Rent				*Own*				
Maximum monthly housing cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	1	1	1	0	0	0	0	0	<60% AMI
$521	1	1	1	0	0	0	0	0	
$729	2	2	1	0	0	0	1	0	
$1,042	3	3	2	0	0	1	1	1	
$1,563	5	6	4	1	0	1	4	2	
$2,083	3	5	4	1	0	2	6	3	
$3,125	4	7	6	2	0	3	12	10	60-80% AMI
$4,167	2	3	3	1	0	1	7	9	80-120% AMI
More than $4,167	1	2	1	1	0	1	4	6	>120% AMI

Notes:

- *.Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $103,600*



Grant County



High Level Analytical Take-Aways

- **Connectivity:**
  - Dry Ridge has a regional Walmart that generates daily trip activity, with larger shopping trips instead directed North to Boone or Kenton
  - New subdivisions in Grant are built as commuter suburbs for northern counties. Most of these people work in warehouses in Boone County.

- **Economy:**
  - Grant does not contain a major industrial base, instead acting as an exurb of Boone. Its residents are employed in low to middle-income jobs elsewhere, with Boone the largest catchment.
  - Many of Grant's residents work in Boone, in particular in the warehousing and logistics sector. Many in the general laborer positions pursue more affordable housing than current Boone offerings in northern Grant County suburban subdivisions.

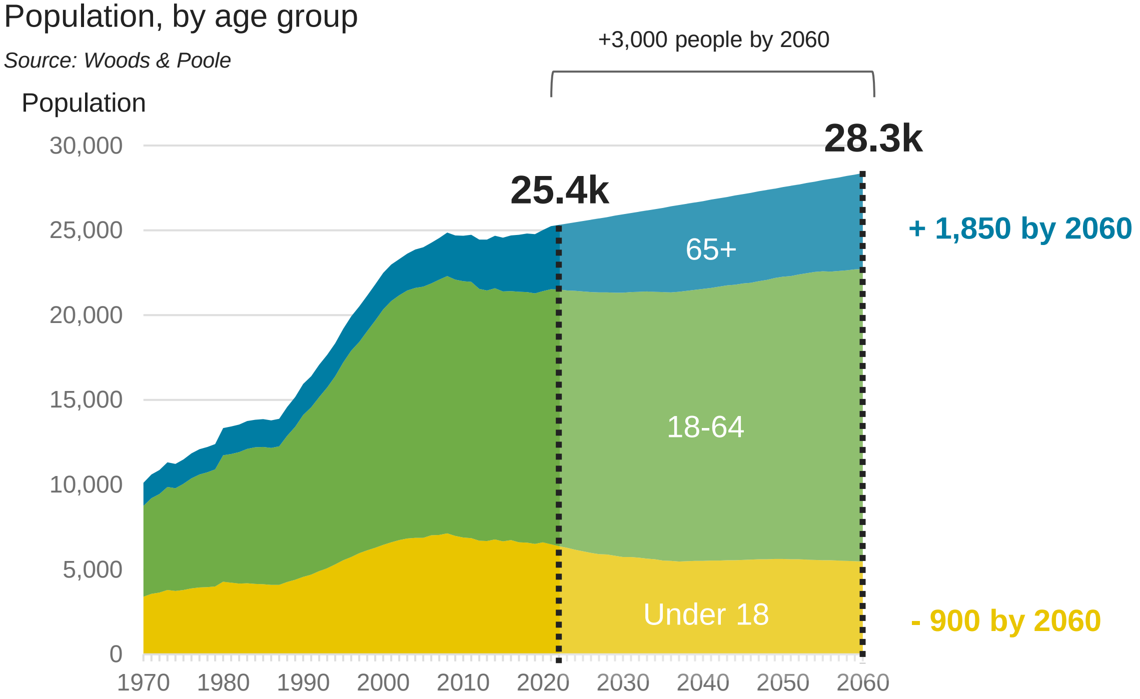
- **Housing:**
  - Compared to Gallatin, Owen, Pendleton and Carrol, Grant has sought to capture a larger share of new residential development. Dense suburban subdivisions are prevalent in the northern part of the county and extend down to Williamstown, with affordability increasing as one moves further south.
  - Housing developments follow the typical mode of single-family detached housing in lower to middle ranges. However, as Grant continues to supply housing to Boone's lower to lower-mid occupations, there is increasing demand from smaller households for entry level housing. The lack of this supply puts pressure on the existing stock, driving up prices of naturally occurring affordable housing and existing single family housing. Grant County housing strategies could target more mixed-style developments for entry housing, including condominiums, duplexes, triplexes, and low-rise apartments.

Grant County is losing children and adding seniors

Grant County, KY is expected to experience steady population growth until 2060. The county is adding seniors and losing children.

Population, by age group

Source: Woods & Poole



Grant County is projected to add over 1,000 jobs by 2060

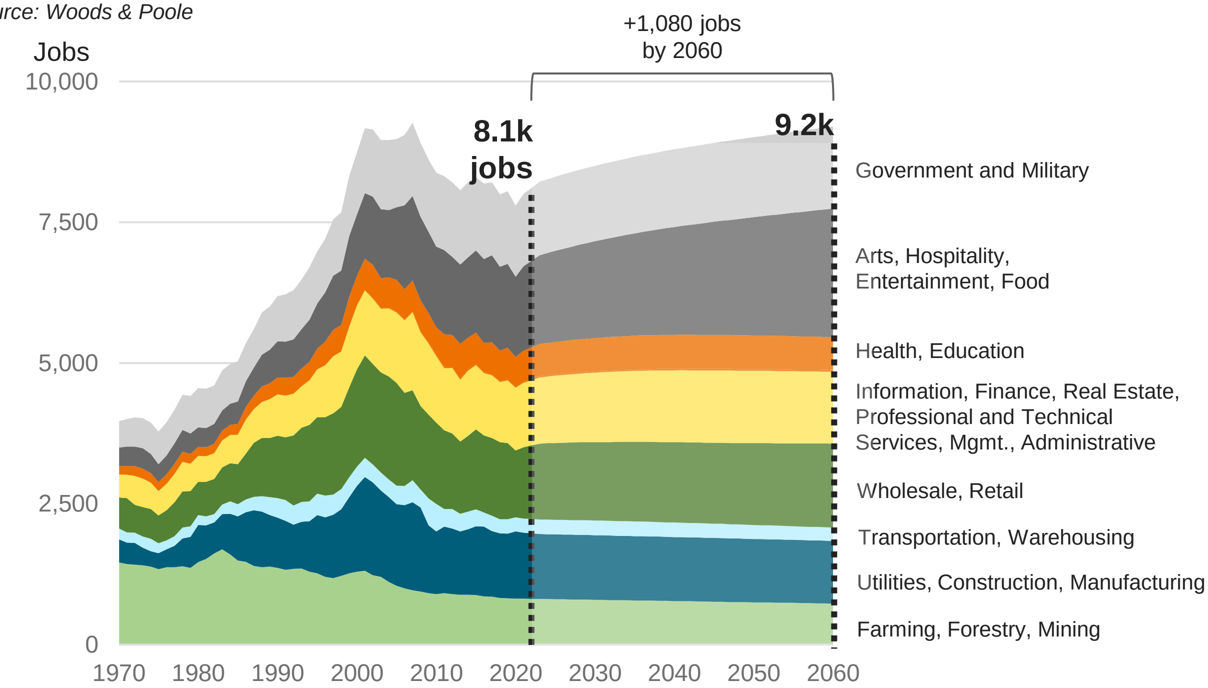
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole

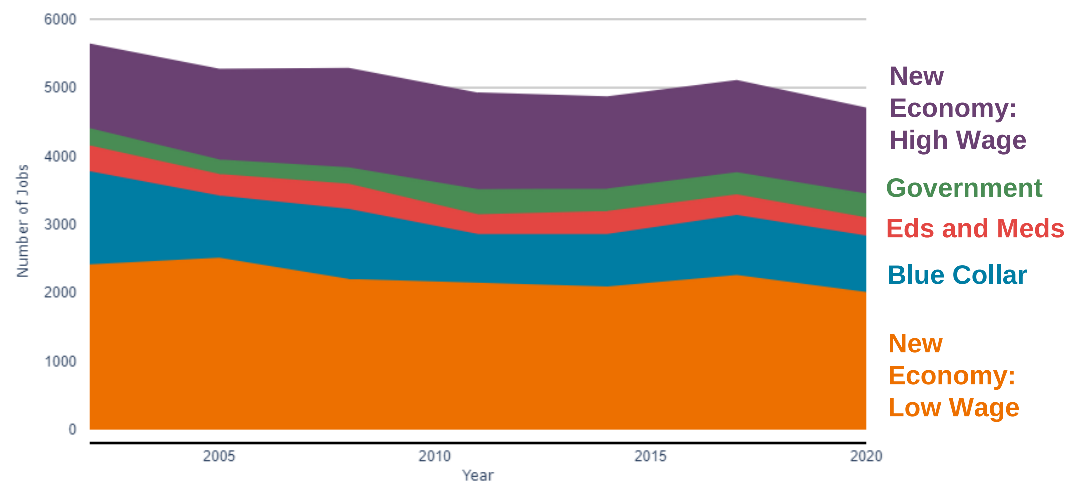


An Emerging Commuter Suburb

Grant County is not a large employment center, with jobs in the county decreasing steadily since the 2000s. The proportion of jobs contains a heavier mix of low and high wage services oriented towards local consumption. 40% of those who work in Owen County live there, with commuters from surrounding Counties rounding out the difference, in particular in more skilled, higher wage New Economy positions.

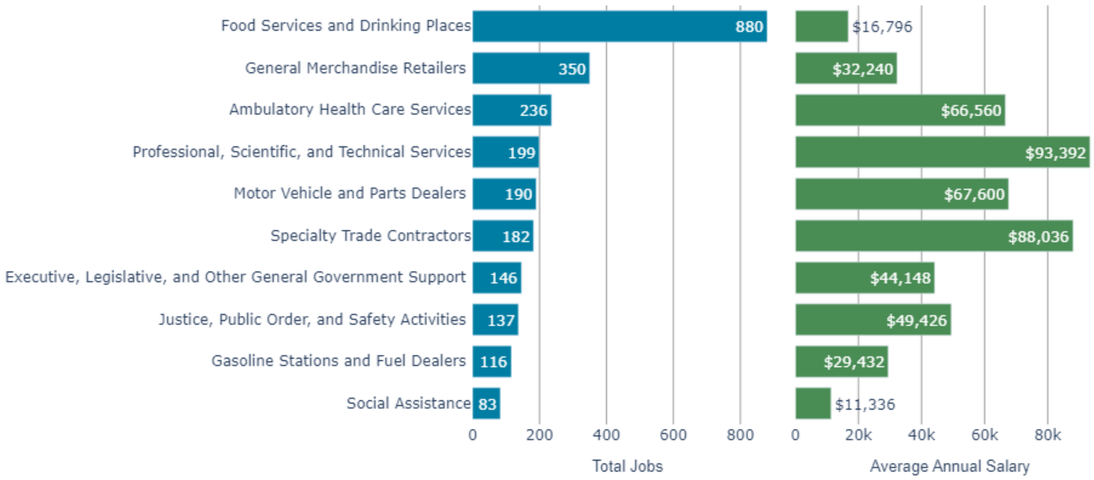
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

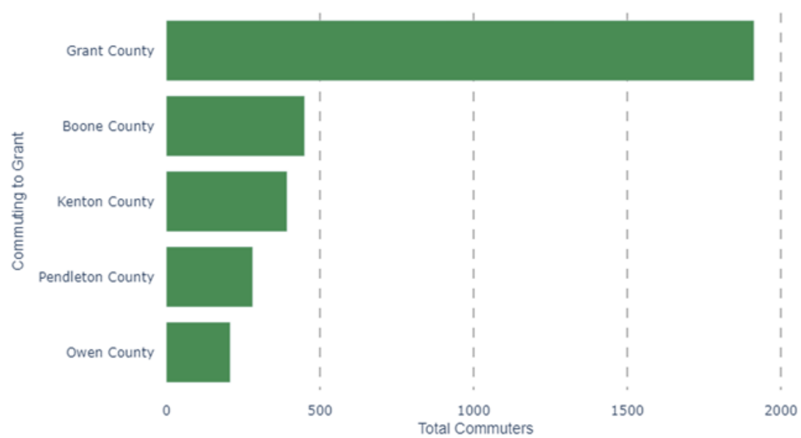


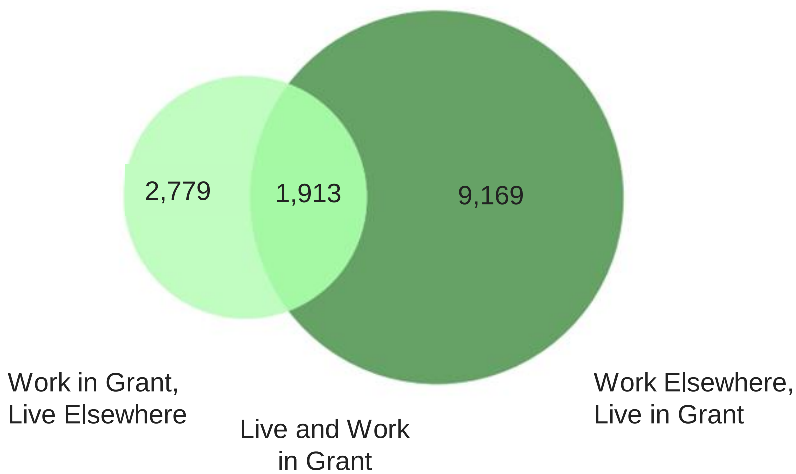
Grant's labor market is centrally located, drawing on a mix of commuters from across the region.

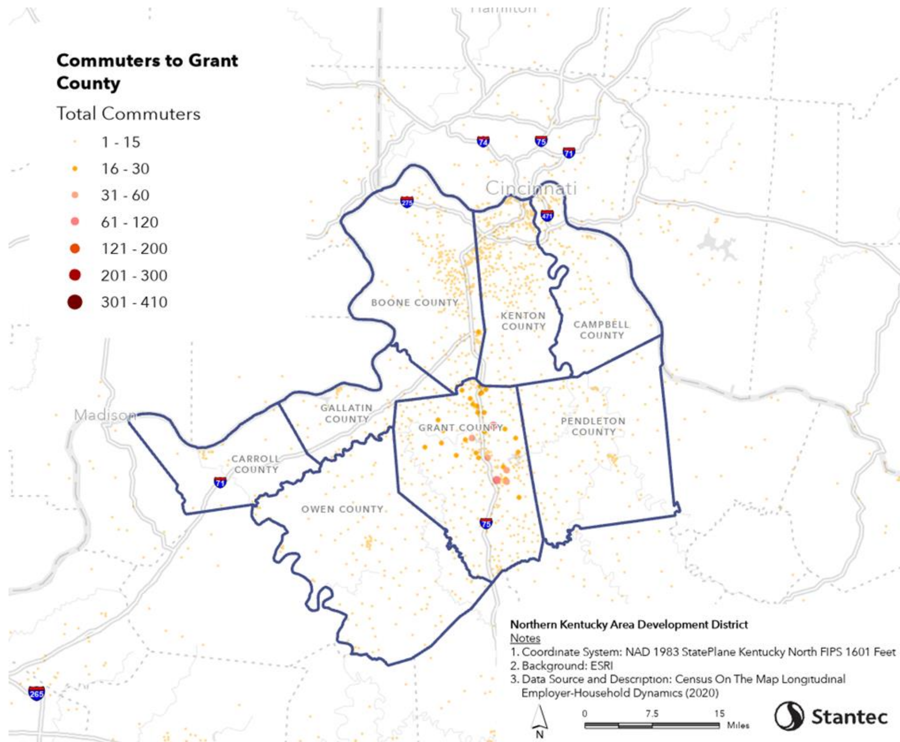
Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020







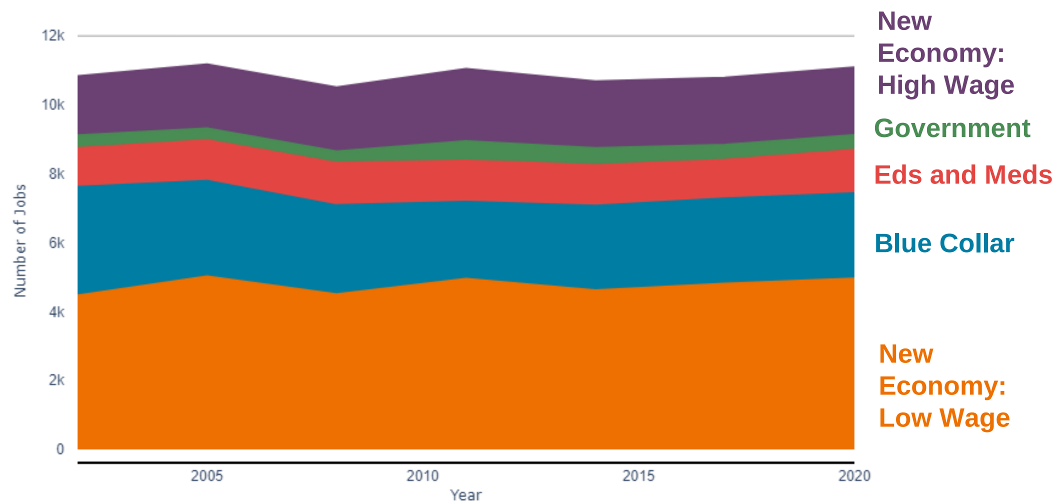
Grant County: A Commuting Suburb

The majority of Grant County residents work in a variety of industries elsewhere. The share working in low wage and high wage service sector jobs remains stable with many commuting to Boone, whereas a stable base of blue collar workers commute to Carroll.

The population of Grant County is remaining stable even as local employment declines. This is an indicator of broader regional growth, especially in Boone and Carroll counties, that draw households living within Grant.

County Residents: Industry Sector Employed

Source: LEHD, 2002-2020

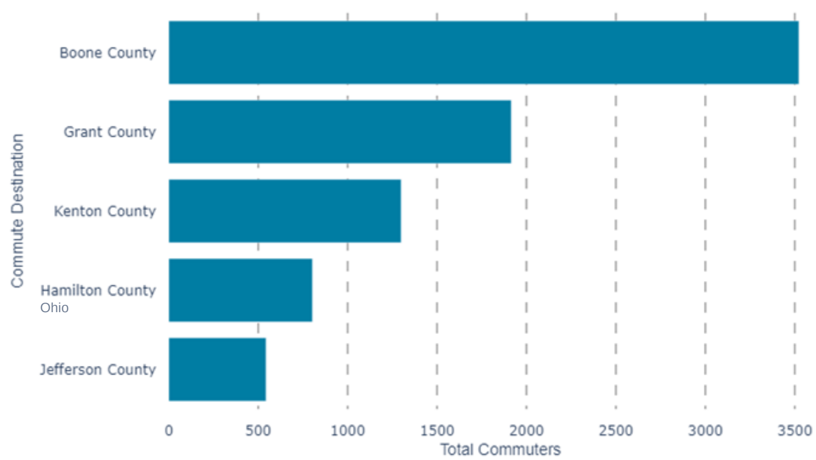


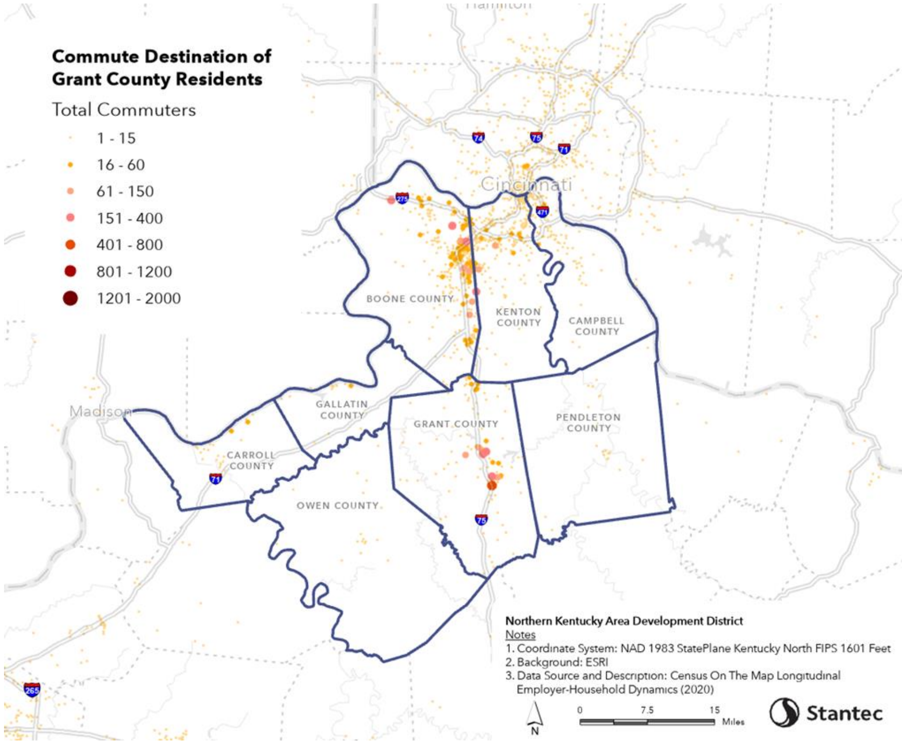
Grant County: A Commuting Suburb

Chart and map of work locations for county residents

County Residents: Commute Destination

Source: LEHD, 2020





Grant's demand profile is strongest in larger ownership units and smaller rentals

As Grant increasingly serves as an affordable residential destination for Boone's logistics sector, a growing number of lower income and smaller households searching for affordable housing are moving into the region.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	155	216	152	27	22	113	272	92
$15,000-24,999	$521	132	154	90	21	20	127	263	98
$25,000-34,999	$729	127	177	126	15	24	149	335	119
$35,000-49,999	$1,042	101	196	128	34	24	178	573	188
$50,000-74,999	$1,563	113	295	234	76	27	184	642	260
$75,000-99,999	$2,083	22	60	49	15	18	77	379	254
$100,000-149,999	$3,125	13	26	27	10	14	70	590	528
$150,000-199,999	$4,167	2	6	17	17	3	14	130	198
$200,000 or more	--	1	15	22	8	2	14	52	174

Grant has a deficiency of 1- and 2-bedroom homes and lower-income rentals.

Grant has an abundance of 3- and 4-bedroom houses that will be less attractive with the diminishing number of households within children.

Its rental stock consists of 1980s-2000s era low-rise and garden suburban apartments that provide decent naturally occurring affordable housing, however pressure in the rental markets are driving rents higher relative to the quality of the housing stock.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	5	186	850	33
$15,000-24,999	$521	21	22	0	0	2	63	518	66
$25,000-34,999	$729	270	442	12	0	4	63	772	130
$35,000-49,999	$1,042	4	158	204	1	2	47	1,168	290
$50,000-74,999	$1,563	23	373	715	15	1	41	766	508
$75,000-99,999	$2,083	8	110	244	98	2	23	344	379
$100,000-149,999	$3,125	0	9	19	106	1	20	163	307
$150,000-199,999	$4,167	0	0	0	3	0	1	20	65
$200,000 or more	--	0	0	0	0	0	0	12	24

Grant has a deficiency of 1- and 2-bedroom homes and lower-income rentals.

Grant has an abundance of 3- and 4-bedroom houses that will be less attractive with the diminishing number of households within children.

There is a significant need for more entry-level housing for low to middle income families in both the rental and ownership market, whereas new development remains focused on mid to large size but relatively affordable single family homes. Demand may exist for missing middle style duplexes, triplexes, townhomes, and condominium style developments. The focus on tract housing also means some of the higher end market is lacking housing that they may 'upgrade' to, which also puts pressure on the housing market for people competing for available units.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-155	-216	-152	-27	-17	73	578	-59
$15,000-24,999	$521	-128	-153	-90	-21	-18	-64	255	-32
$25,000-34,999	$729	-109	-123	-122	-15	-20	-86	437	11
$35,000-49,999	$1,042	-99	-177	-78	-33	-22	-131	595	102
$50,000-74,999	$1,563	-90	72	459	-61	-26	-143	124	248
$75,000-99,999	$2,083	-14	49	195	83	-16	-54	-35	125
$100,000-149,999	$3,125	-13	-17	-8	96	-13	-50	-427	-221
$150,000-199,999	$4,167	-2	-6	-17	-14	-3	-13	-110	-133
$200,000 or more	--	-1	-15	-22	-8	-2	-14	-40	-150

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: New housing is concentrated in single-family homes in the lower-middle incomes and new Manufactured Homes

* 'New' Development is post-2000

Grant single family residential construction is relatively robust, with northern parts of the County developing new suburban tract housing. This includes hamlets near Crittenden, Dry Ridge, and Williamstown. Southern and western parts of the county include new developments adjacent to rural county roads and highways.

Newer single-family suburban housing is relatively affordable for the region, providing workforce housing for the Boone County employment base.

		Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	10	138	1	1	2	3	4
$15,000-24,999	$521	1	53	2	0	1	11	0
$25,000-34,999	$729	1	52	5	1	1	26	6
$35,000-49,999	$1,042	1	58	3	1	4	162	33
$50,000-74,999	$1,563	0	25	1	0	9	213	126
$75,000-99,999	$2,083	0	10	0	1	6	96	179
$100,000-149,999	$3,125	0	4	0	1	5	47	153
$150,000-199,999	$4,167	0	0	0	0	1	10	35
$200,000 or more	--	0	0	0	0	0	3	14

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

New Rental: A diversity of types, but not much!

* 'New' Development is post-2000

Northern Grant County is capturing some of Boone's employment growth, with a handful of more affordable multi-family projects developed in recent years. These projects are based in Crittenden, a 20 minute drive south of Florence.

		Duplex				Quadruplex	Low-Rise		Manufactured Home				Single Family		
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	2BR	2BR	3BR	1BR	2BR	3BR	4BR+	2BR	3BR	4BR+
$25,000-34,999	$729	2	0	0	0	0	6	0	0	0	0	0	0	0	0
$35,000-49,999	$1,042	4	2	2	0	8	12	12	0	0	1	0	0	0	0
$50,000-74,999	$1,563	0	0	3	0	0	0	3	1	3	44	0	3	18	1
$75,000-99,999	$2,083	0	4	6	1	0	0	0	0	1	16	3	5	17	7
$100,000-149,999	$3,125	0	1	1	17	0	0	0	0	0	0	0	1	2	22
$150,000-199,999	$4,167	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Development Types

Single Family

380 Barley Circle, Crittenden, KY

Subdivision with 50+ homes.

Prices:
Range from $200,000-240,000
($1,500 month cost of ownership)

Single Family

287 Fairway Drive, Dry Ridge, KY
Part of subdivision with 60+ homes.

Prices:
Range from $185,000-250,000
($1,350 month cost of ownership)

Low-Rise

200 Mar Kim, Crittenden

2 Bedrooms
8 Units

Rent
2 Bed = $1,169

Grant's growth is slowing down but still continuing, and the population's income is increasing

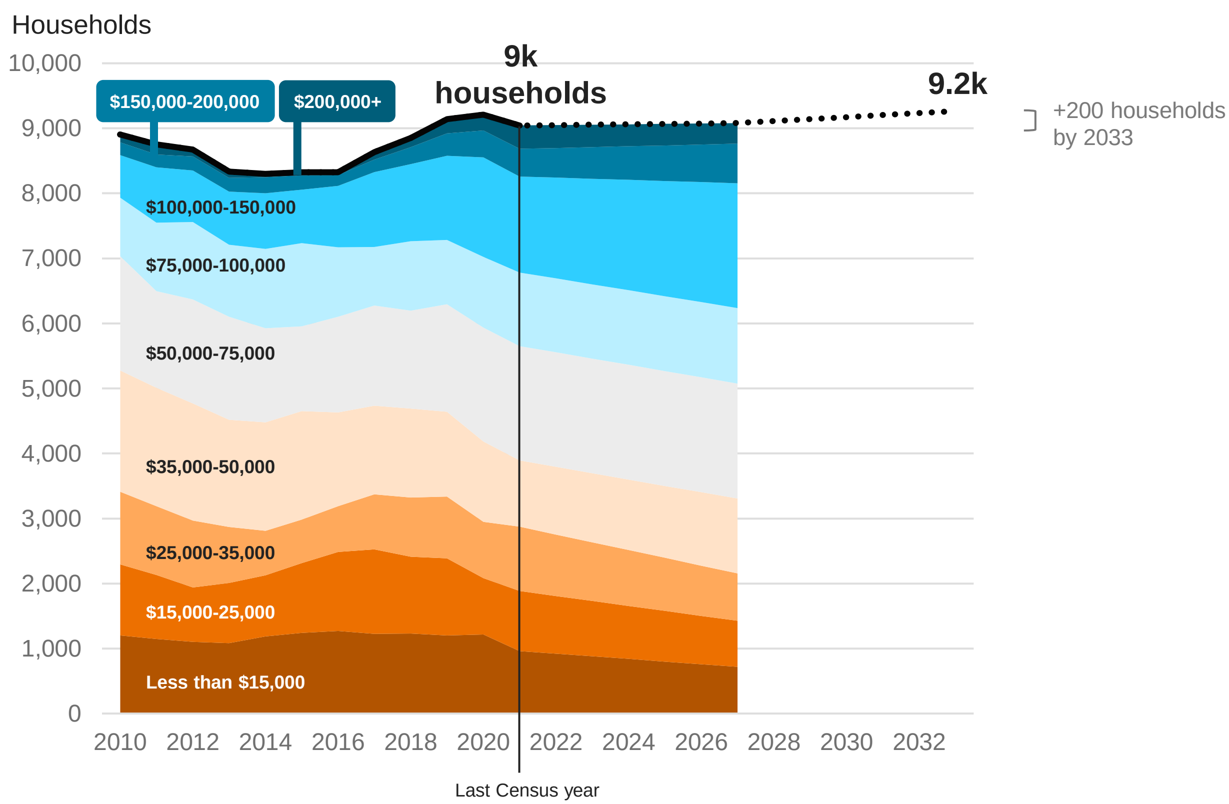
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Grant County is relatively stable and is expected to see slight growth.

Grant County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



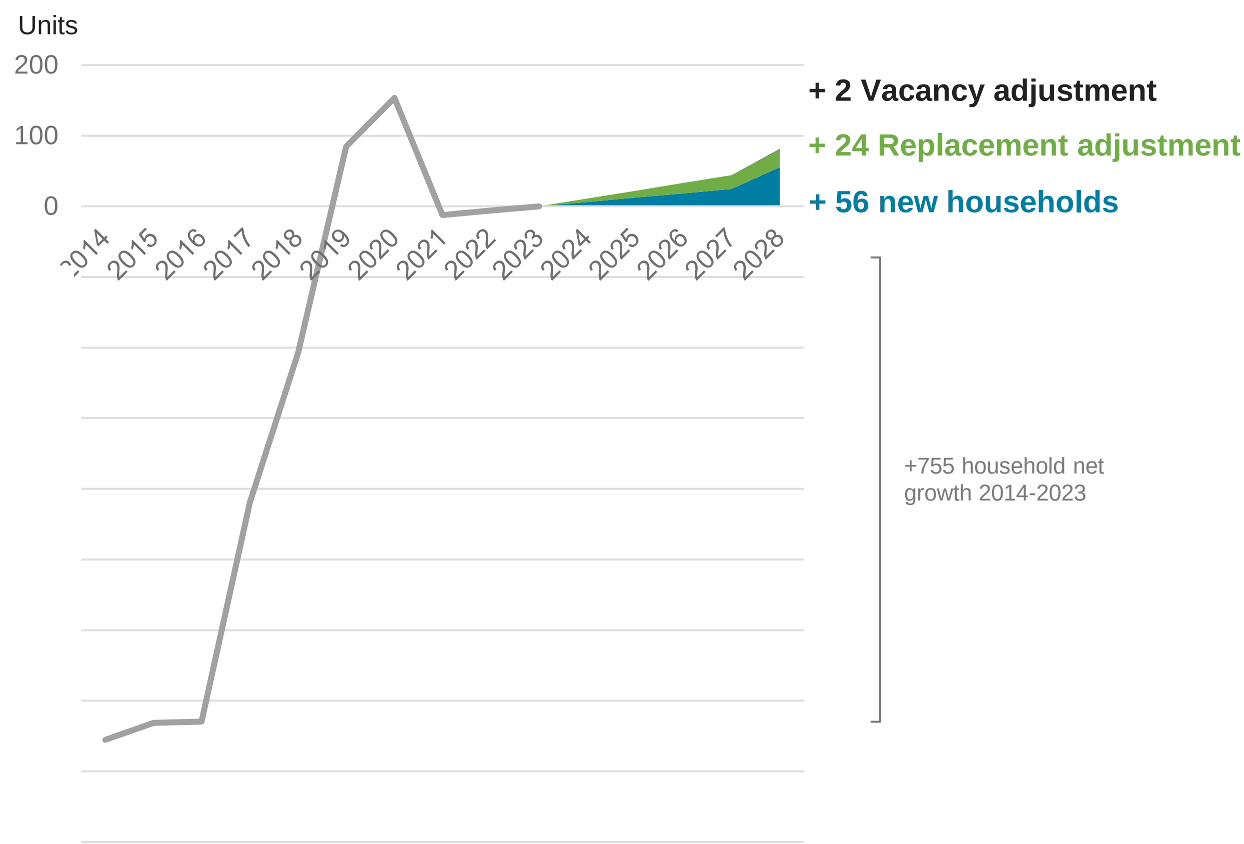
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **81 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

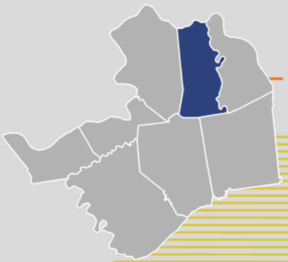
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

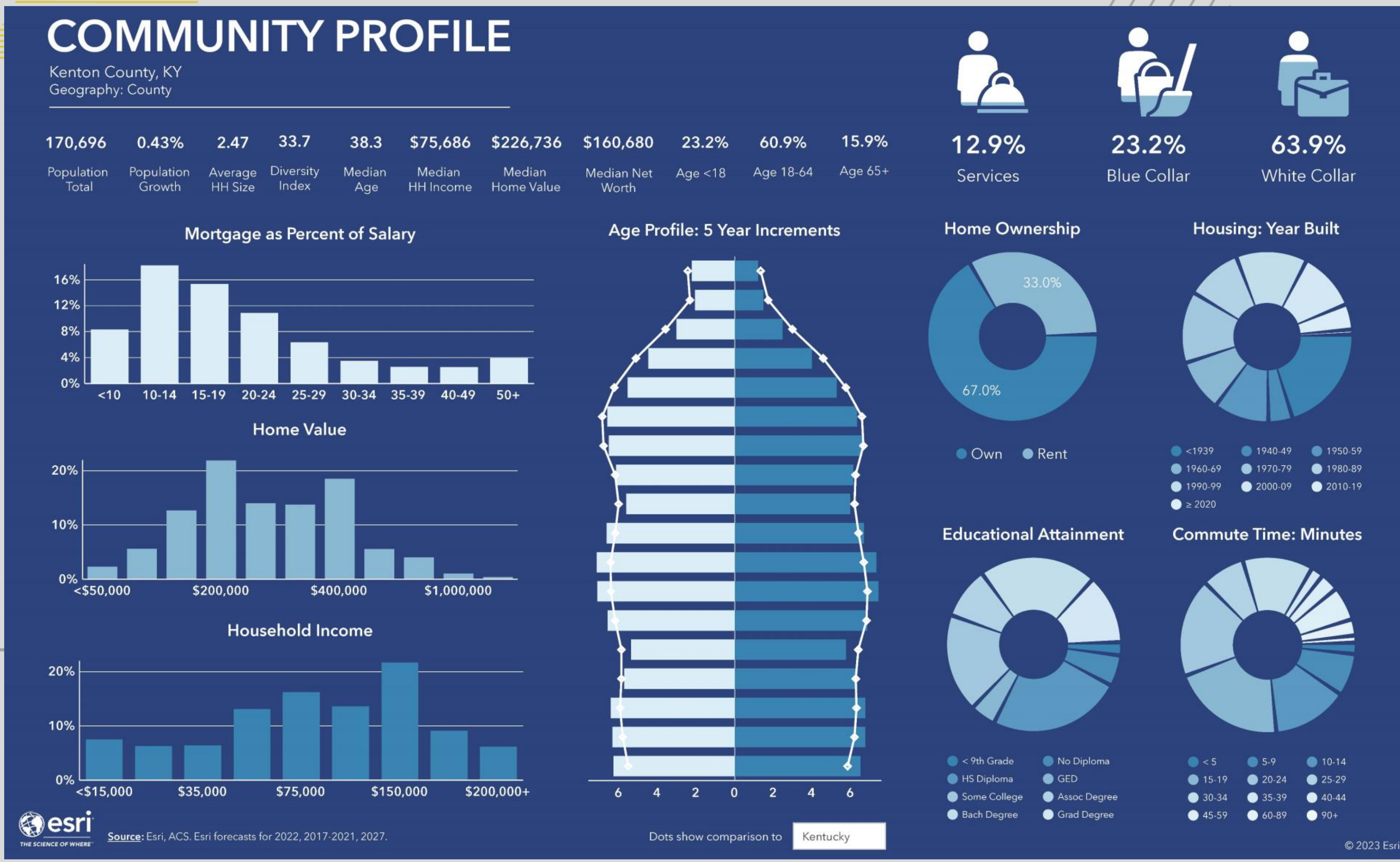
Maximum monthly housing cost	*Rent* 1BR	*Rent* 2BR	*Rent* 3BR	*Rent* 4BR+	*Own* 1BR	*Own* 2BR	*Own* 3BR	*Own* 4BR+	
$313	1	1	0	0	0	0	0	0	<60% AMI
$521	1	1	0	0	0	0	0	0	
$729	1	1	1	0	0	0	0	0	
$1,042	2	2	1	0	0	0	1	0	
$1,563	3	4	2	1	0	1	3	1	60-80% AMI
$2,083	1	2	2	0	0	1	2	1	80-120% AMI
$3,125	2	4	3	1	0	1	6	5	>120% AMI
$4,167	1	1	1	0	0	1	3	4	
More than $4,167	0	1	1	0	0	0	2	3	

Notes:

- *.Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $64,100*



Kenton County



High Level Analytical Take-Aways

- **Connectivity:**
  - Kenton remains central to the region as a shopping, errand, entertainment and recreational hub, with Covington, Erlanger, and Independence each operating as central hubs
  - Covington maintains historic charm with mixed use neighborhoods providing density and walkability, with close proximity to downtown Cincinnati
  - With its central location, Kenton residents both commute to Campbell and Boone for work, and also is a hub where people living elsewhere commute to

- **Economy:**
  - As an employment hub, Kenton contains a wide mix of economic industries, ranging from Fidelity corporate offices outside Latonia, to St Elizabeth Hospital in Edgewood, to warehousing near Elsemere, with higher income jobs producing effective demand for broad service-based industries
  - Kenton’s wage structure contains some polarization, with high numbers of lower wage service sector workers earning significantly less than professionals, leading to some pockets of poverty and rent burdened households in downtown Covington and in the Elsmere/Erlanger area.

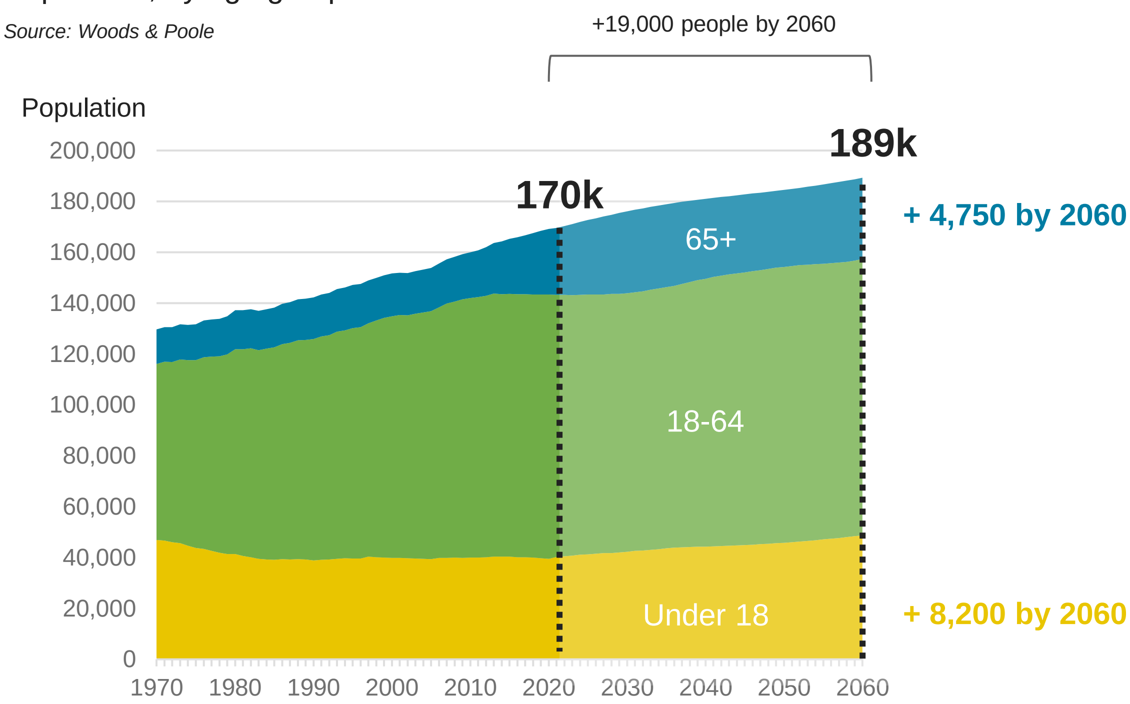
- **Housing:**
  - Housing in Kenton has some similarity with Campbell. Historic Covington is transitioning from depopulation to gentrification, with rehabbing of historic mixed-use duplexes and triplexes and new construction of market and luxury condo and apartment complexes. This is putting upward pressure on prices in older housing stock in the city, driving displacement to more affordable rental units further out in the county
  - New developments tend to be 3-4 bedroom suburban subdivisions targeted for middle to upper-middle class incomes – a housing type that is relatively overdeveloped in Kenton and the region.

Kenton is growing and adding children

Kenton County, KY is expected to experience steady population growth until 2060, with an estimated increase of 20% and a shift towards an older demographic.

Population, by age group

Source: Woods & Poole



Kenton County has the largest share of jobs in healthcare and education of any NKADD county

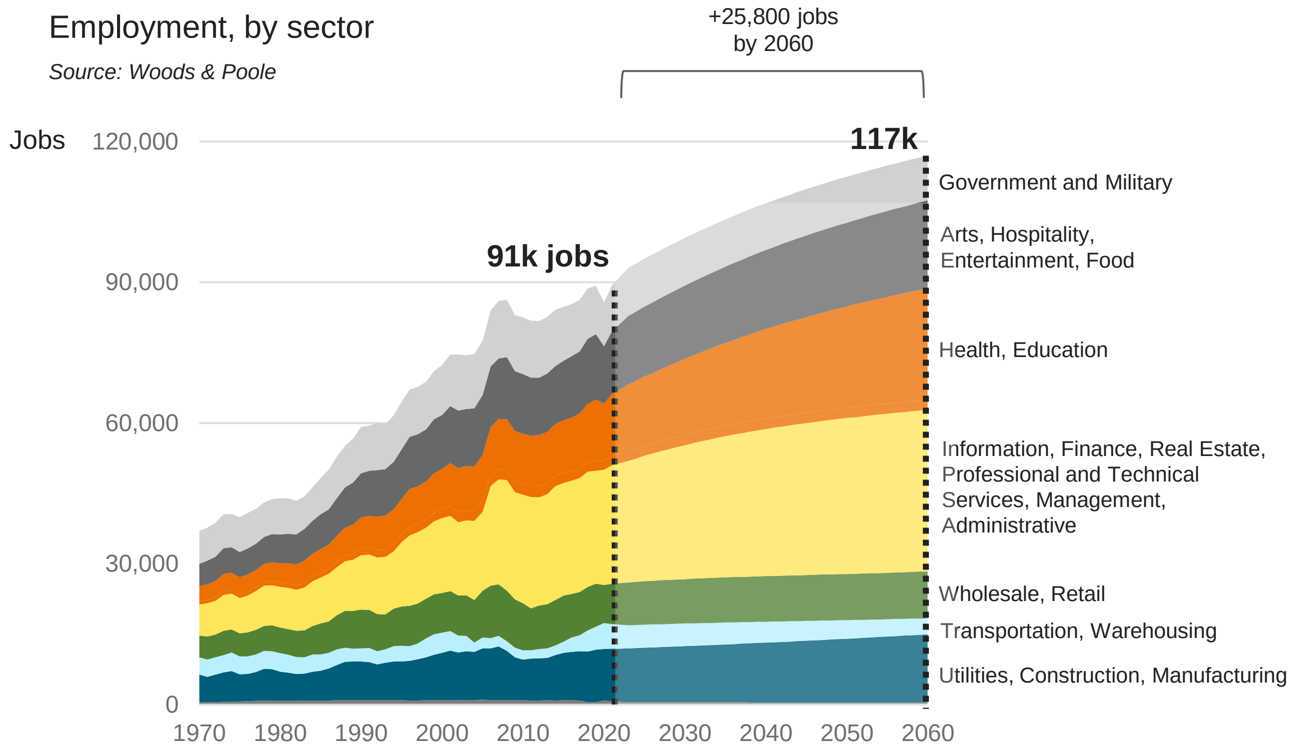
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



A Balanced Employment

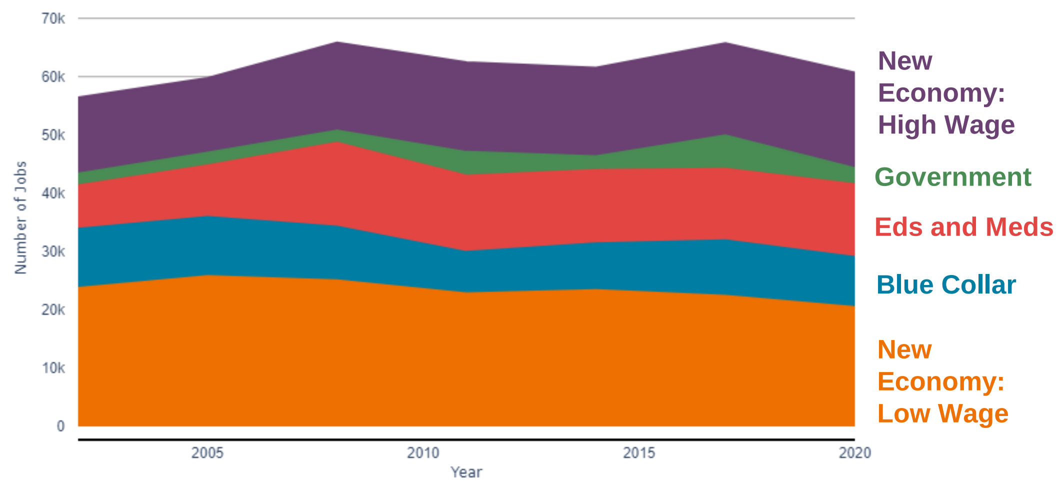
Kenton County is both a large regional employment center attracting workers from both Boone and Cincinnati, and a residential base for workers elsewhere. Kenton contains the highest proportion of New Economy High Wage jobs and good mid-wage public sector, education, and healthcare jobs. Growth accelerated in the early 2000s before plateauing through the mid 2010s.

Despite declines in manufacturing, Kenton maintains a regional share of food manufacturing.

Boone and Hamilton residents commute into the region, in particular for the higher skilled jobs.

County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

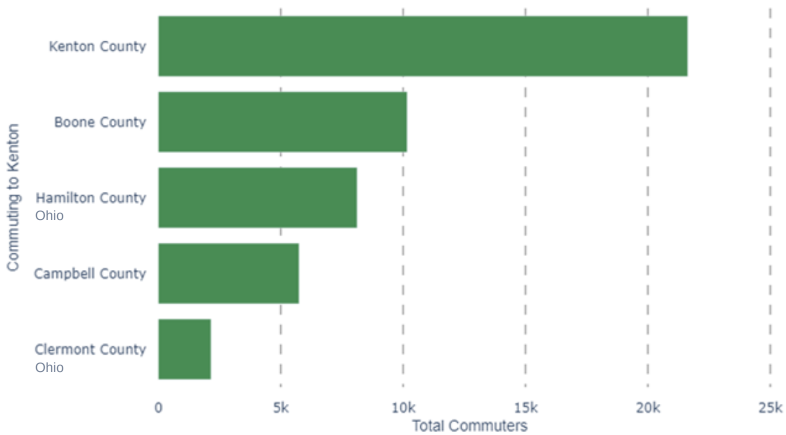
Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

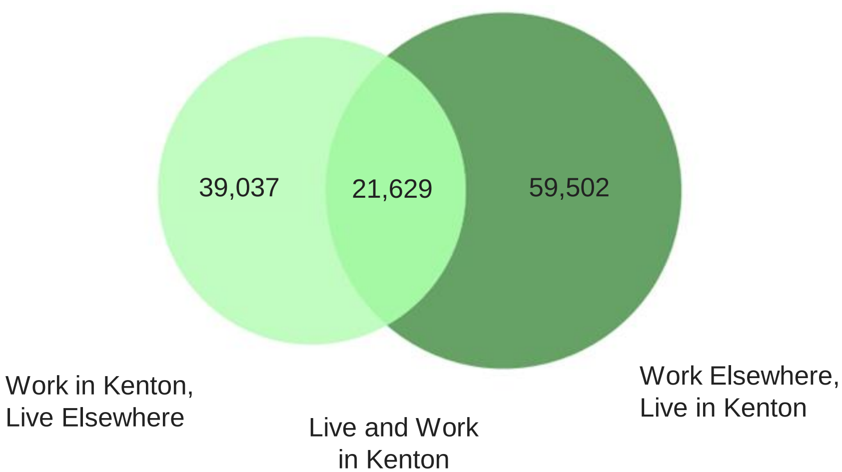
A bedroom suburb and employment hub

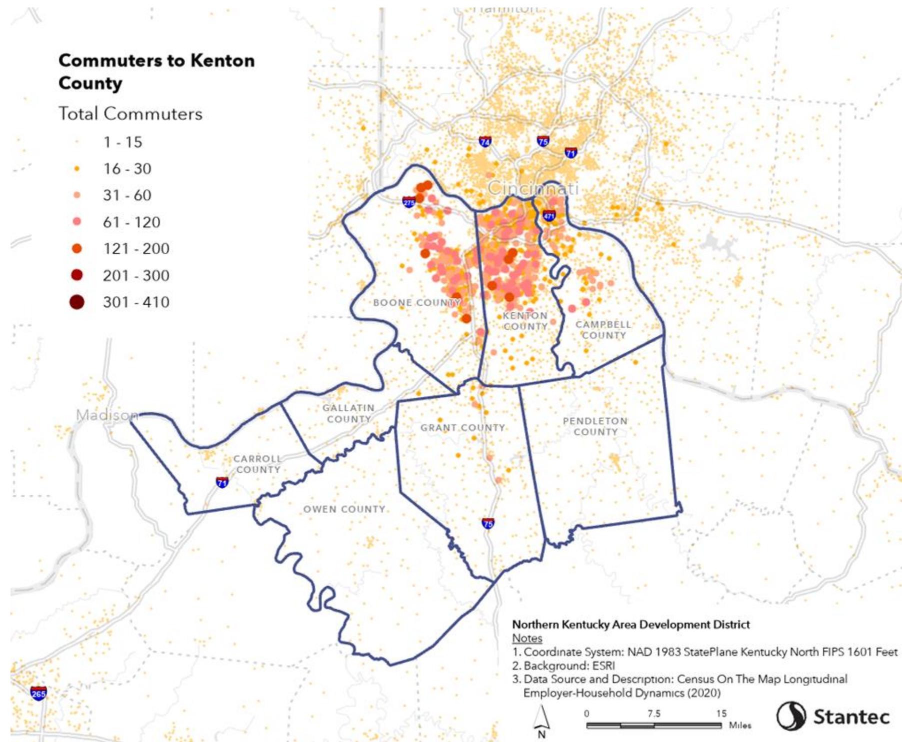
Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020







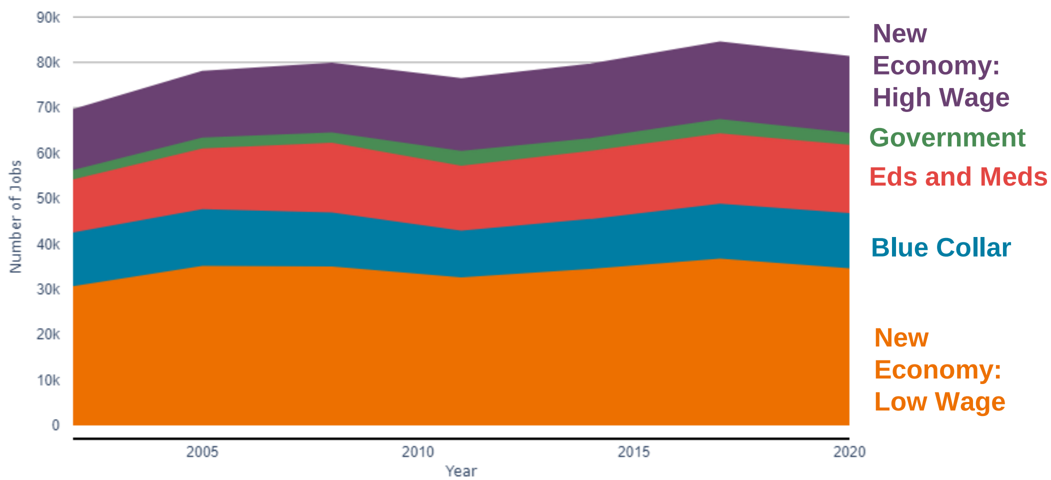
Kenton County: More Lower Wage Residents

Kenton continues to grow as a residential destination, with workers commuting to work elsewhere. Neighborhoods in Covington and single-family subdivisions attract professionals commuting into Cincinnati, increasing the county's median household income to $75,686.

Kenton lacks Boone's large logistics cluster workforce and low-middle income logistics salaries. Instead, lower-paying service sector work is more common. However, Boone's demand for labor in the logistics sector draws on Kenton's population, with a large amount of commuters finding employment in Boone.

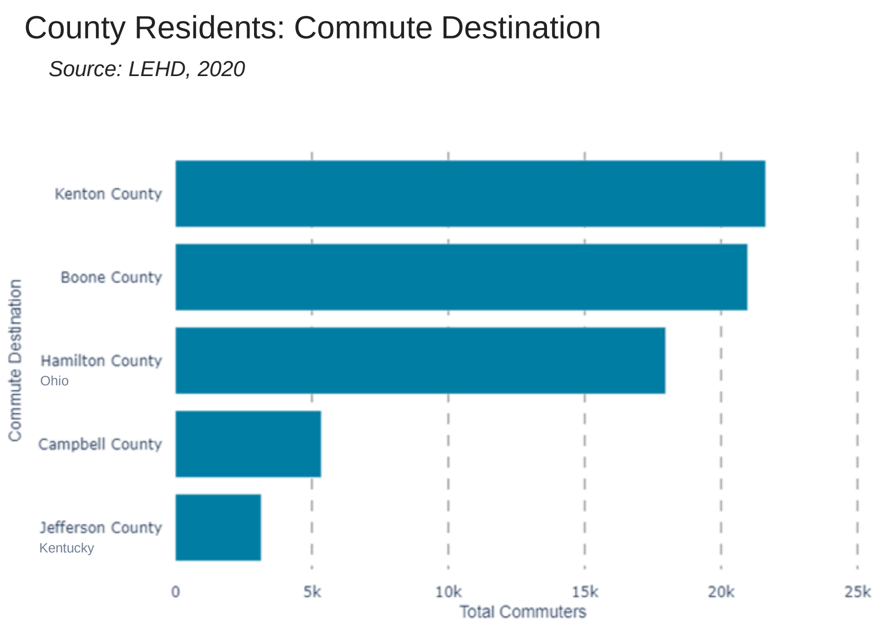
County Residents: Industry Sector Employed

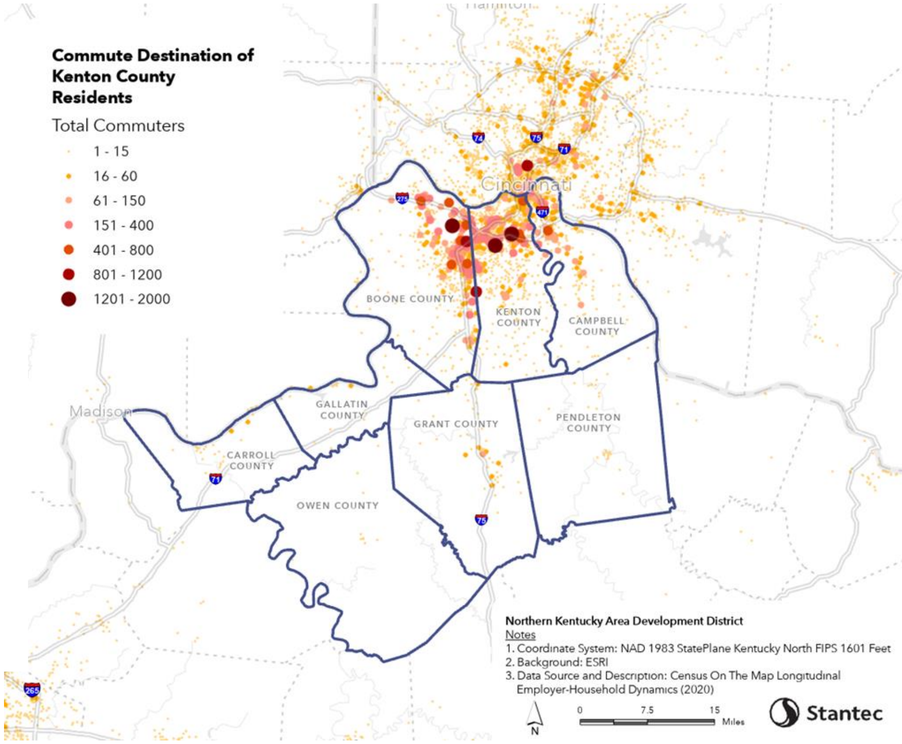
Source: LEHD, 2002-2020



Residents commute to jobs in and around Kenton

Chart and map of work locations for county residents





Kenton is missing 1-bed and 2-bed homes across most income levels and 3-bed rentals for lower-income households.

Kenton's demand shows a need for lower rent 1 and 2 bedroom rental units and entry level housing, with also a strong demand for middle and upper-middle range single family housing.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	1,689	1,567	709	120	137	554	1,042	289
$15,000-24,999	$521	1,103	1,163	811	229	86	532	1,016	249
$25,000-34,999	$729	969	1,203	700	122	109	662	1,394	416
$35,000-49,999	$1,042	1,365	1,623	988	218	127	911	2,372	781
$50,000-74,999	$1,563	1,144	1,784	1,245	269	153	1,227	4,246	1,657
$75,000-99,999	$2,083	309	633	526	135	125	752	4,025	2,144
$100,000-149,999	$3,125	222	533	543	177	77	876	5,053	3,965
$150,000-199,999	$4,167	89	101	102	38	23	219	1,534	1,914
$200,000 or more	--	52	71	24	17	27	180	1,070	2,329

Kenton is missing 1-bed and 2-bed homes across most income levels and 3-bed rentals for lower-income households.

Kenton's housing supply is very homogeneous in the 3-bedroom, $900 - $2,000 monthly cost range, while the population characteristics reflects a wider range of housing preferences.

Kenton development has been focused on single-family suburban tract housing extending towards Independence, with new subdivisions building large single-family units.

Kenton maintains some naturally occurring affordable housing in the form of suburban garden and low-rise apartment units built in the 1980s and duplexes, triplexes, and apartment homes in Covington. However new development is largely focused on higher end rental and housing markets.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	9	0	0	0	8	149	246	22
$15,000-24,999	$521	568	9	2	0	49	368	273	27
$25,000-34,999	$729	2,068	998	20	0	121	582	620	78
$35,000-49,999	$1,042	2,702	3,143	712	13	190	1,842	2,931	393
$50,000-74,999	$1,563	645	2,963	966	29	133	2,840	8,212	2,216
$75,000-99,999	$2,083	458	1,359	2,507	315	47	1,264	6,785	3,544
$100,000-149,999	$3,125	168	521	684	1,319	15	589	3,219	7,003
$150,000-199,999	$4,167	0	55	32	116	10	156	655	1,834
$200,000 or more	--	0	0	0	0	3	69	296	905

Kenton is missing 1-bed and 2-bed homes across most income levels and 3-bed rentals for lower-income households.

Kenton's housing supply does not reflect the demand for more lower income rental housing. A lack of supply in this price bracket puts upward price pressure on naturally occurring affordable housing, increasing rents.

There is also a demand for higher end housing being unmet that could also take the lid of pricing pressure in the middle range. While vacancy rates are low, the mismatch indicates that higher end rental housing and suburban subdivisions are relatively overbuilt compared to the demand for those unit types, pointing towards the utility of more mixed use development such as duplexes, triplexes, townhomes, apartments and condominiums for rent and own.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-1,687	-1,567	-709	-120	-129	-405	-796	-267
$15,000-24,999	$521	-1,000	-1,159	-810	-229	-37	-164	-743	-222
$25,000-34,999	$729	-601	-961	-689	-122	12	-80	-774	-338
$35,000-49,999	$1,042	-1,156	-1,315	-670	-216	63	931	559	-388
$50,000-74,999	$1,563	-1,000	-1,033	-470	-242	-20	1,613	3,966	559
$75,000-99,999	$2,083	-185	638	1,913	180	-78	512	2,760	1,400
$100,000-149,999	$3,125	-193	-201	141	1,142	-62	-287	-1,834	3,038
$150,000-199,999	$4,167	-89	-77	-70	78	-13	-63	-879	-80
$200,000 or more	--	-52	-71	-24	-17	-24	-111	-774	-1,424

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: New housing is concentrated in single-family homes in the lower-middle incomes and new Manufactured Homes

* 'New' Development is post-2000

Kenton's single family housing built since 2000 is concentrated in new subdivisions surrounding Independence. These homes tend to range from 3-4+ bedrooms, and $280,000-450,000 in price. These units are affordable to those earning above the median income (generally around $100,000 a year), but often absorbed by those earning less but incurring more costs.

More affordable new units for households with less than median income are located closer to Elsmere. The square footage of the lots are smaller, and 2-3 bedrooms are more common.

About 27% of newer builds are affordable to households earning below the county median wage.

Small clusters of condominiums exist scattered throughout the county, and provide a more affordable entry option than most new single-family detached. 48% are priced as affordable for median income households.

		Condominium				Manufactured Home		Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	2BR	3BR	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	11	49	0	4	5	3
$15,000-24,999	$521	0	0	0	0	43	33	2	6	2	2
$25,000-34,999	$729	0	2	0	0	5	6	8	17	27	6
$35,000-49,999	$1,042	0	53	1	0	2	63	4	31	66	18
$50,000-74,999	$1,563	4	335	14	0	0	8	2	115	670	62
$75,000-99,999	$2,083	0	210	16	0	0	0	5	57	1,775	560
$100,000-149,999	$3,125	1	149	22	0	0	0	6	59	1,128	2,367
$150,000-199,999	$4,167	3	44	18	1	0	0	2	18	186	614
$200,000 or more	--	2	24	32	1	0	0	0	7	68	262

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Development Types (Typical Examples)

Condos

3929 Crestside Court, Erlanger KY
Suburban Condominiums

1, 2 and 3 Bedrooms

Ranges from $180,000-200,000
($1,280 month cost of ownership)

Suburban Single Family

6375 Fieldsteade Dr, Independence

Single family housing in new suburban subdivisions.

3-4+ Bedrooms.

Prices
Range $280,000-$450,000
($2,000 month cost of ownership)

Manufactured Home

1758 Apache Trail
Augusta Homes

1-2 Bedrooms

Suburban Single Family

1041 Wermeling Ln, Elsmere, KY

Houses range $190,000-250,000
($1,500 month cost of ownership)

New Rental

* 'New' Development is post-2000

		Condominium				Duplex				Triplex			Garden			Low-Rise			Mid-Rise			Hi-Rise		Manufactured Home			Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	2BR	3BR	4BR+	1BR	2BR	3BR	1BR	2BR	3BR	1BR	2BR	3BR	1BR	2BR	1BR	2BR	3BR	1BR	2BR	3BR	4BR+
$15,000-24,999	$521	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$25,000-34,999	$729	0	0	0	0	2	4	0	0	3	0	0	0	4	0	34	22	0	0	0	0	0	0	0	0	0	0	0	0	0
$35,000-49,999	$1,042	12	0	0	0	0	4	8	0	0	6	0	56	0	0	35	43	38	0	0	0	0	0	0	0	1	0	0	1	0
$50,000-74,999	$1,563	1	8	1	0	0	3	11	4	0	1	1	0	343	0	62	50	19	72	148	0	0	0	0	51	30	7	35	60	2
$75,000-99,999	$2,083	2	97	12	0	0	3	10	47	0	0	4	0	0	15	0	14	4	19	0	32	15	0	1	10	3	5	28	347	31
$100,000-149,999	$3,125	2	48	11	1	0	1	1	25	0	0	17	0	0	0	0	12	0	0	67	0	140	0	0	0	0	3	28	125	174
$150,000-199,999	$4,167	0	19	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	2	2	35

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Kenton's rental market ranges from new market-rate development of multi-family and remodeled historic duplexes in downtown Covington to garden-style suburban complexes oriented towards households working in Kenton and Boone's low-wage service sector market. A substantial portion of rentals consist of single-family homes rented out to families.

The most affordable units are suburban style low-rise units built in Erlanger in close proximity to Boone's growing logistics cluster.

Rental Development Types

Hi-Rise

50 Madison Place Apartments
Market Rate Luxury - Urban

Studio, 1, and 2 Bedrooms

Rent
$2000 studio
$2,800 1 Bed
$3,300> 2 Bed

Garden

Three Springs Apartments
2404 Anderson Rd, Crescent Springs
Income Restricted – Suburban (LIHTC)

1, 2, and 3 Bedroom Units

Rent
1 Bed = $766
2 Bed = $880
3 Bed = $1,035

Mid-Rise

Riverhaus Apartments
515 Main Street
Market Rate Luxury - Urban

Studio, 1, and 2 Bedrooms

Rent
Studio = $1500
1 Bed = $1,800-2,000
2 Bed = >$2,500

Low-Rise

Renovated Historic Mixed Use
206-208 Garrard St - Urban

1 and 2 Beds

Rent
1 Bed = $750
2 Bed = $900

Kenton's steady growth will continue in the future with a growing upper income segment

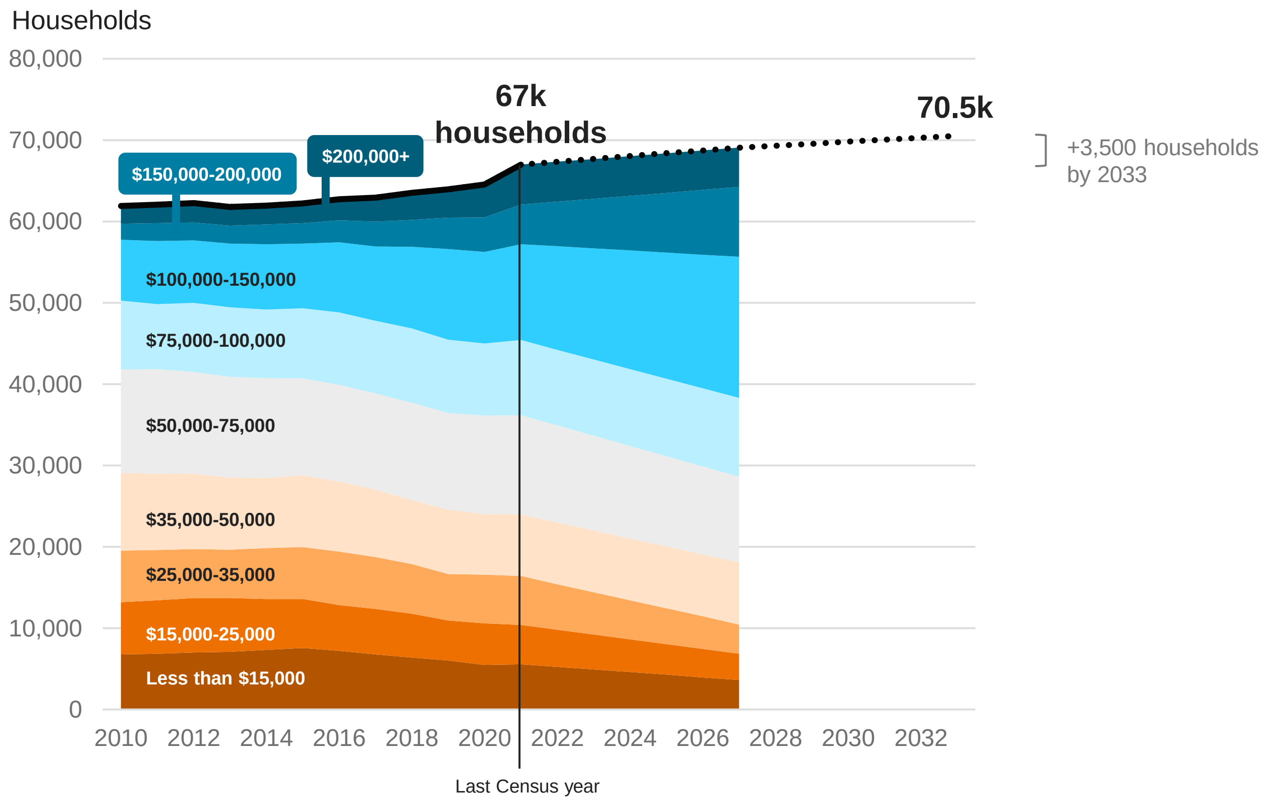
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Kenton County is adding wealthier households and is expected to grow (though not by as much as the other northern counties).

Kenton County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



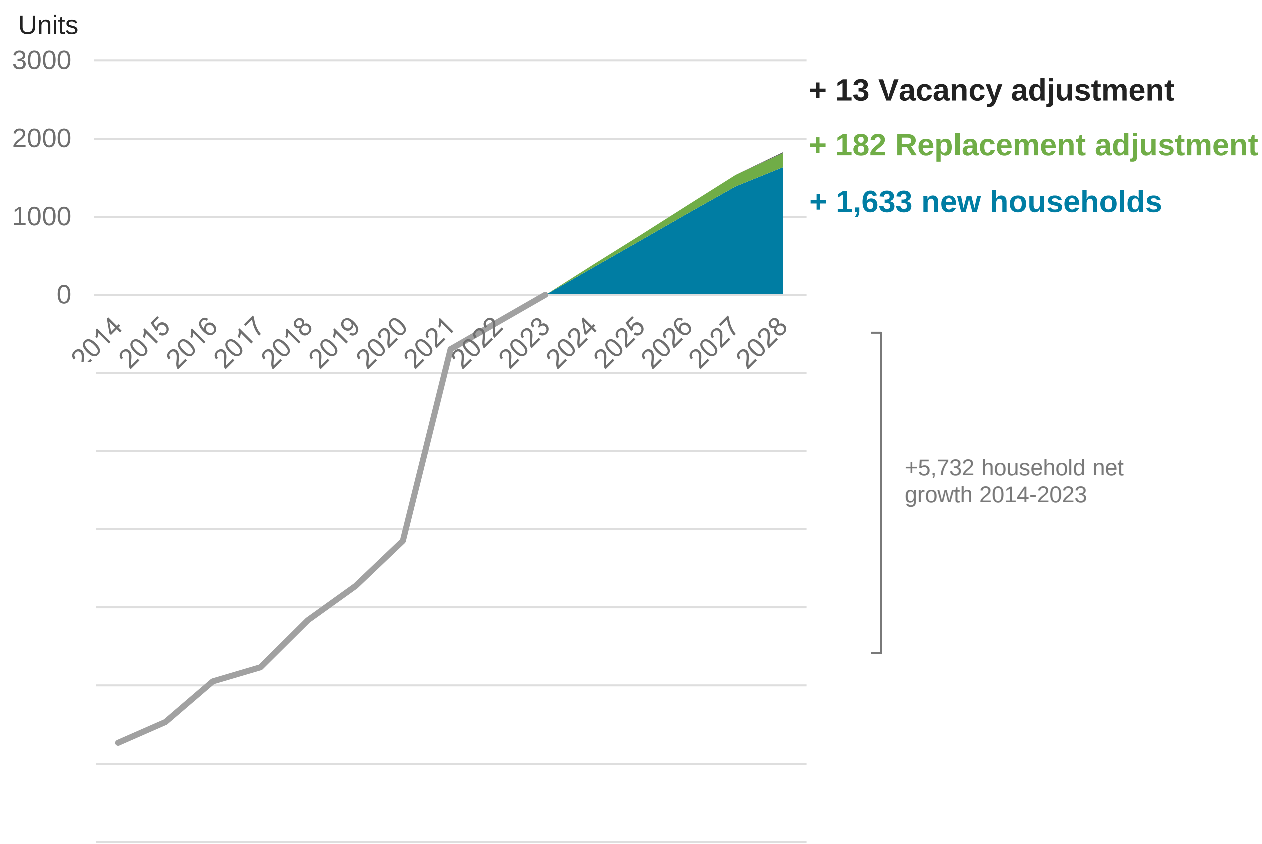
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **1,827 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

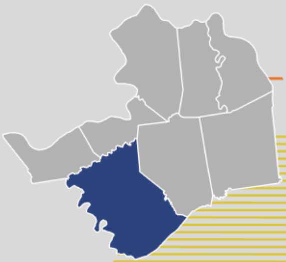
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

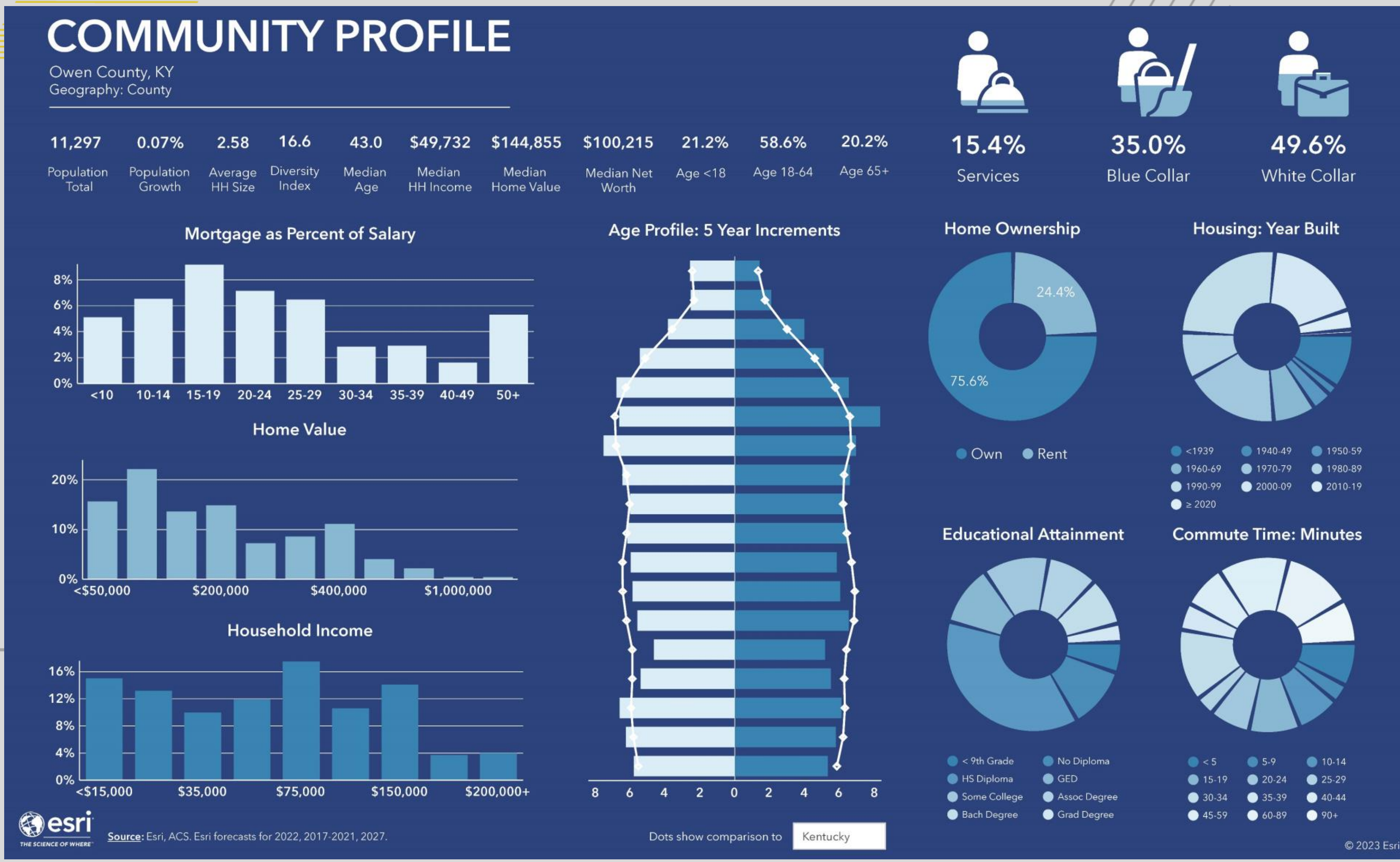
	Rent				Own				
Maximum monthly housing cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	59	54	23	7	3	7	11	3	<60% AMI
$521	47	48	22	5	3	7	11	4	
$729	44	49	22	5	2	8	14	4	
$1,042	59	70	36	9	3	15	32	11	
$1,563	66	82	49	12	4	20	56	24	
$2,083	33	49	36	9	2	15	57	33	
$3,125	29	51	43	16	3	18	82	69	60-80% AMI
$4,167	10	20	17	7	1	9	43	56	80-120% AMI
More than $4,167	5	11	8	6	1	6	28	46	>120% AMI

Notes:

- *Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $103,600*



Owen County


COMMUNITY PROFILE
Owen County, KY
Geography: County
11,297 Population Total
0.07% Population Growth
2.58 Average HH Size
16.6 Diversity Index
43.0 Median Age
$49,732 Median HH Income
$144,855 Median Home Value
$100,215 Median Net Worth
21.2% Age <18
58.6% Age 18-64
20.2% Age 65+
15.4% Services
35.0% Blue Collar
49.6% White Collar
Mortgage as Percent of Salary
8%
6%
4%
2%
0%
<10
10-14
15-19
20-24
25-29
30-34
35-39
40-49
50+
Home Value
20%
10%
0%
<$50,000
$200,000
$400,000
$1,000,000
Household Income
16%
12%
8%
4%
0%
<$15,000
$35,000
$75,000
$150,000
$200,000+
Age Profile: 5 Year Increments
8 6 4 2 0 2 4 6 8
Dots show comparison to
Kentucky
Home Ownership
24.4%
75.6%
Own
Rent
Housing: Year Built
<1939
1940-49
1950-59
1960-69
1970-79
1980-89
1990-99
2000-09
2010-19
≥ 2020
Educational Attainment
< 9th Grade
No Diploma
HS Diploma
GED
Some College
Assoc Degree
Bach Degree
Grad Degree
Commute Time: Minutes
< 5
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-59
60-89
90+
esri
THE SCIENCE OF WHERE
Source: Esri, ACS. Esri forecasts for 2022, 2017-2021, 2027.
© 2023 Esri

High Level Analytical Take-Aways

- **Connectivity:**
  - Owen County remains largely rural with few major trip destinations. Grocery stores include dollar, discount and convenience stores. Nearest grocery and shopping destinations include Carrollton and Williamstown (Dry Ridge), while broader shopping needs are probably met in surrounding communities (Georgetown, Carrollton, Frankfurt, Florence).

- **Economy:**
  - Owen's economy is largely rural, small town based, with higher numbers of service sector workers earning lower wages. Lack of proximity to major employment centers limits the ability for Owen to operate as a commuter suburb/exurb. Owen residents commute longer than other counties for work related purposes
  - Household income is lower than the rest of the region

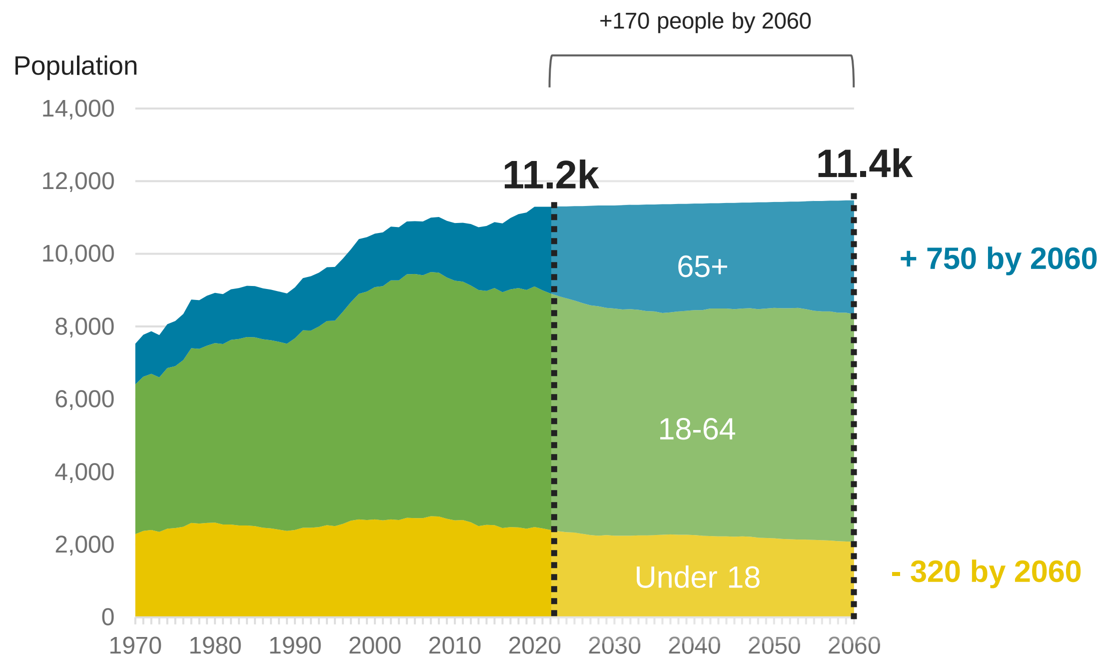
- **Housing:**
  - Housing in Owen is rural in character, with limited new housing development. New housing is largely constructed off of county highways and roads, rather than subdivisions. No new rental housing has been constructed, meaning that the rental market is underdeveloped. As a result, there is higher price pressure on existing rental stock, keeping prices high relative to incomes, leading to relatively high rates of rent burdenship.

Owen's new households will be seniors

Owen County, KY is expected to experience a slight increase in population until 2060, with a shift towards an older demographic and a decrease in the number of children.

Population, by age group

Source: Woods & Poole



After dipping significantly over the last 50 years, jobs in mining, forestry, and farming in Owen are projected to see fewer losses by 2060

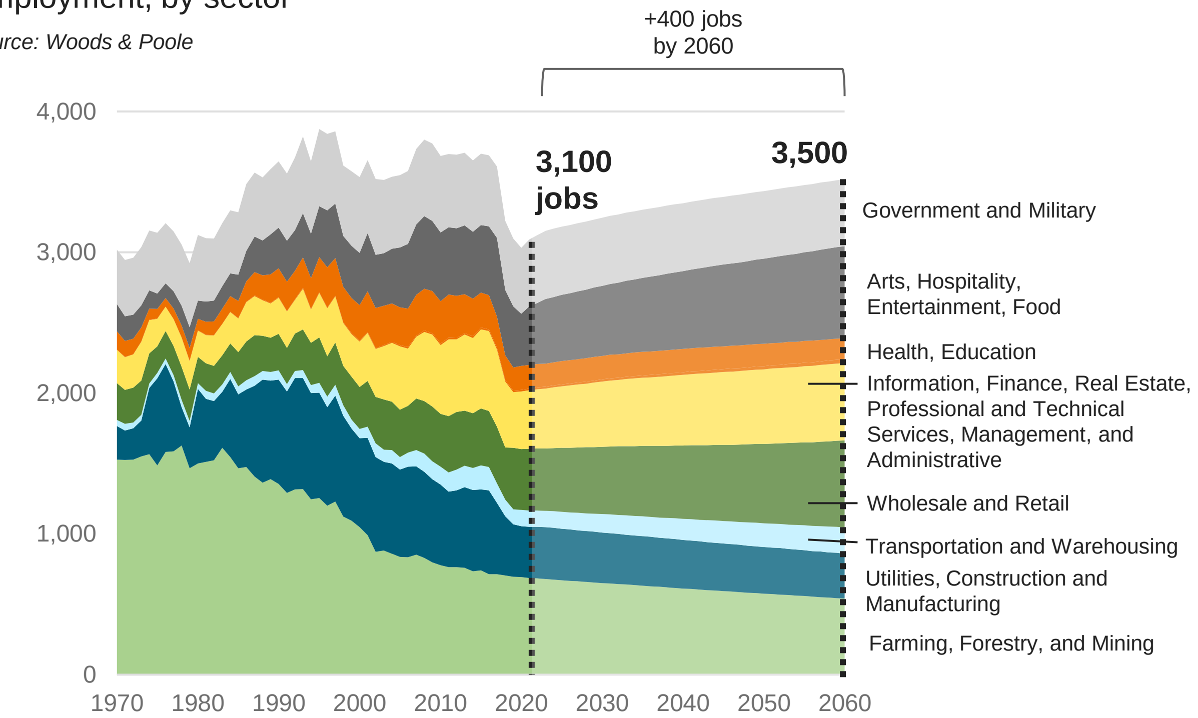
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole



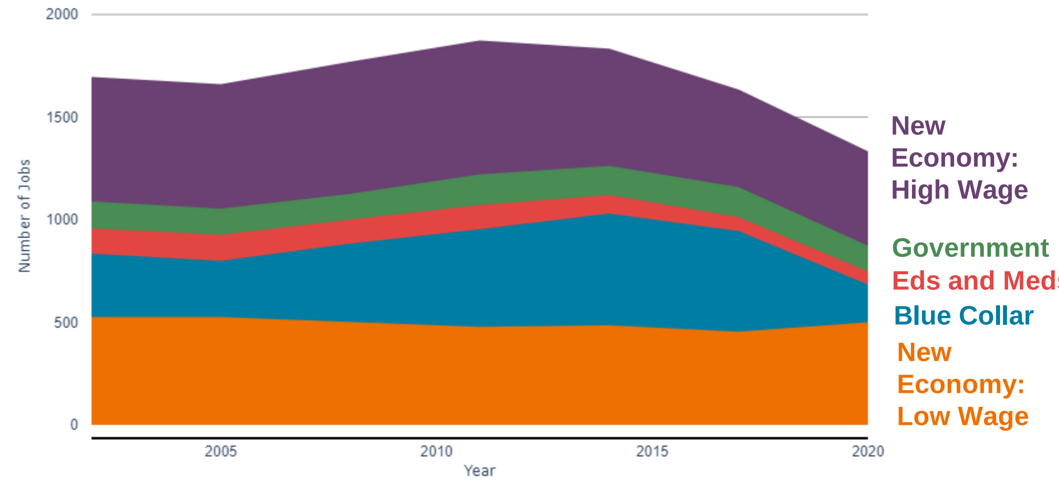
Owen County: A Rural Economy

Owen County is largely a commuter suburb, with employment situated outside the county. Of those who work in the county, more than 50% live in the county proper.

Employment numbers have fallen since the 2000s, a similar trend as other rural counties. The fall has been steepest in Blue Collar occupations (by several hundred jobs – a small proportion when considered as part of the broader region), which has a corresponding impact on demand for services.

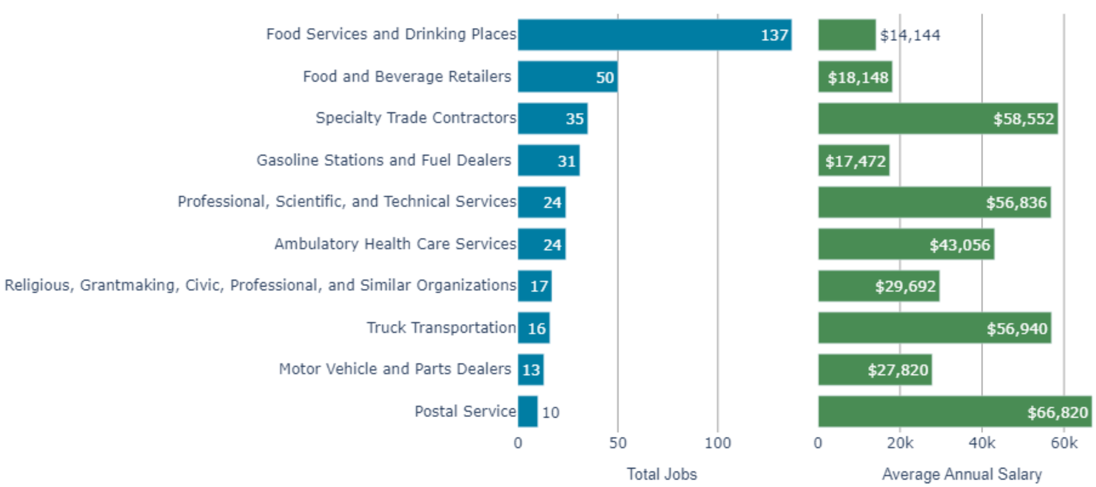
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

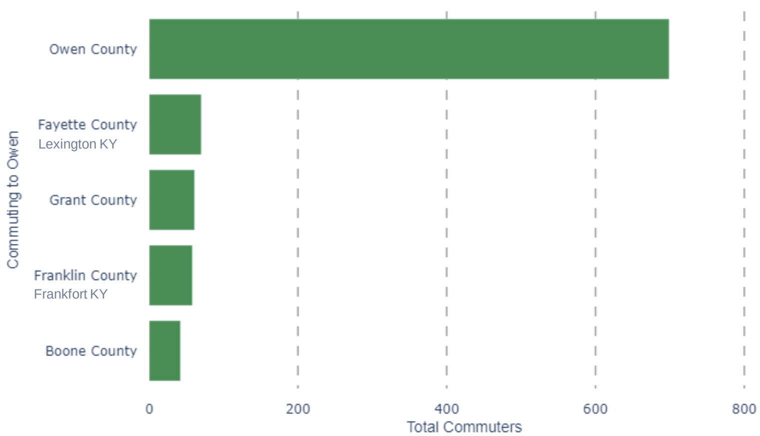


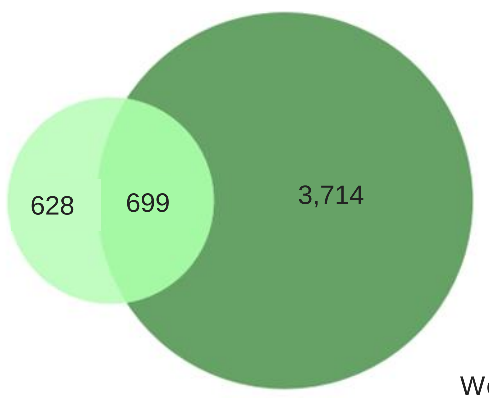
Owen County: Rural and Removed

Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020

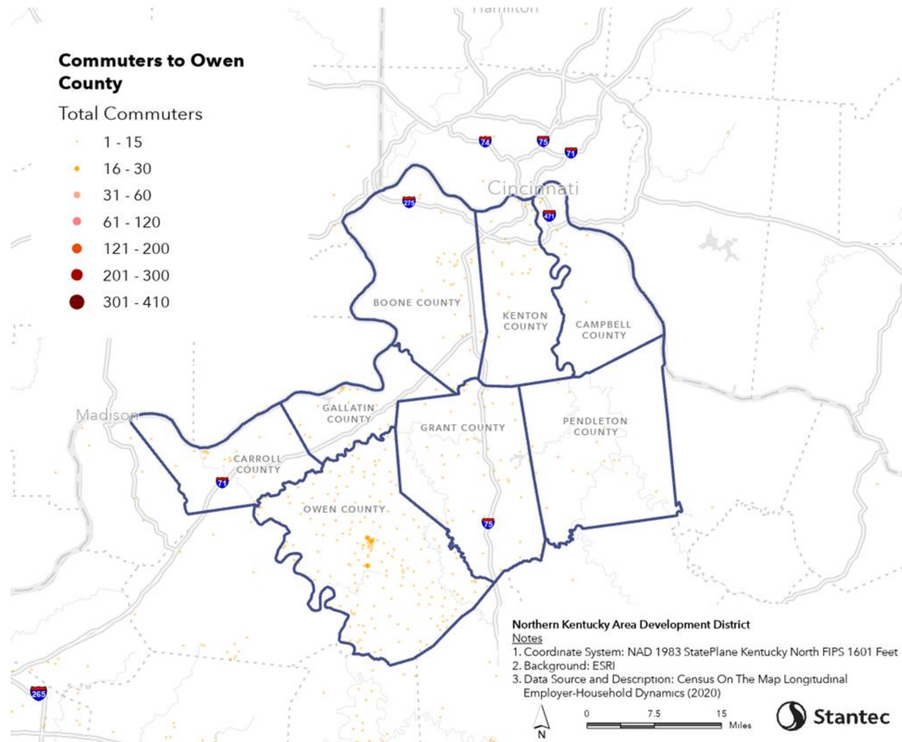




Work in Owen, Live Elsewhere

Live and Work in Owen

Work Elsewhere, Live in Owen



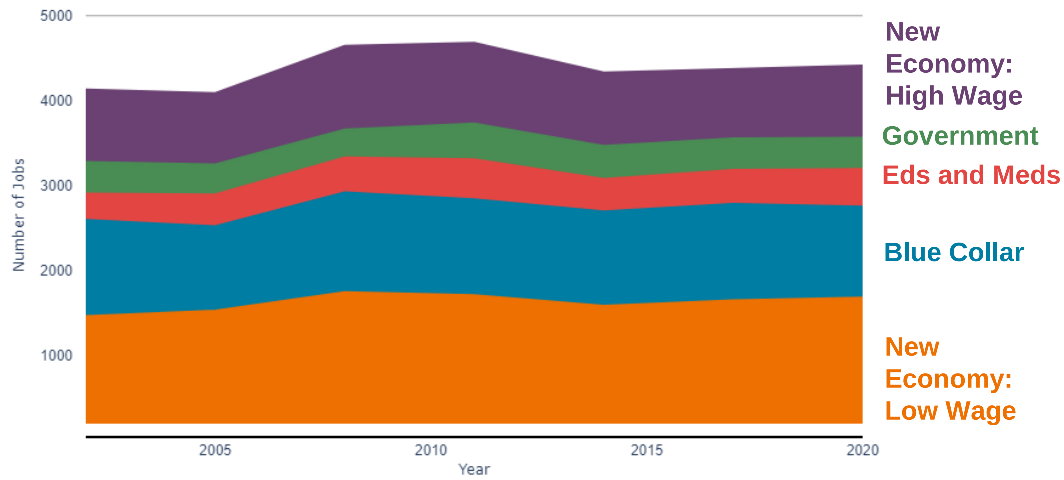
Owen County: Commutes to Employment Centers

Of those who live in Owen and commute elsewhere, large shares migrate to Boone, Franklin and Carrol counties in lower wage occupations. The average household income in Owen is $49,732 – low relative to the Northern Counties.

Gallatin, Grant, and Scott

County Residents: Industry Sector Employed

Source: LEHD, 2002-2020

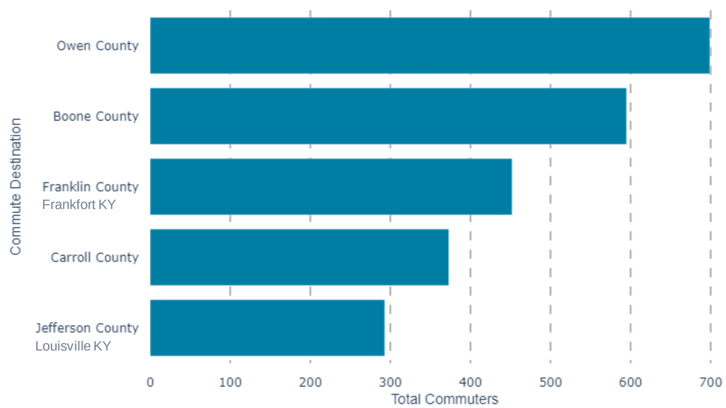


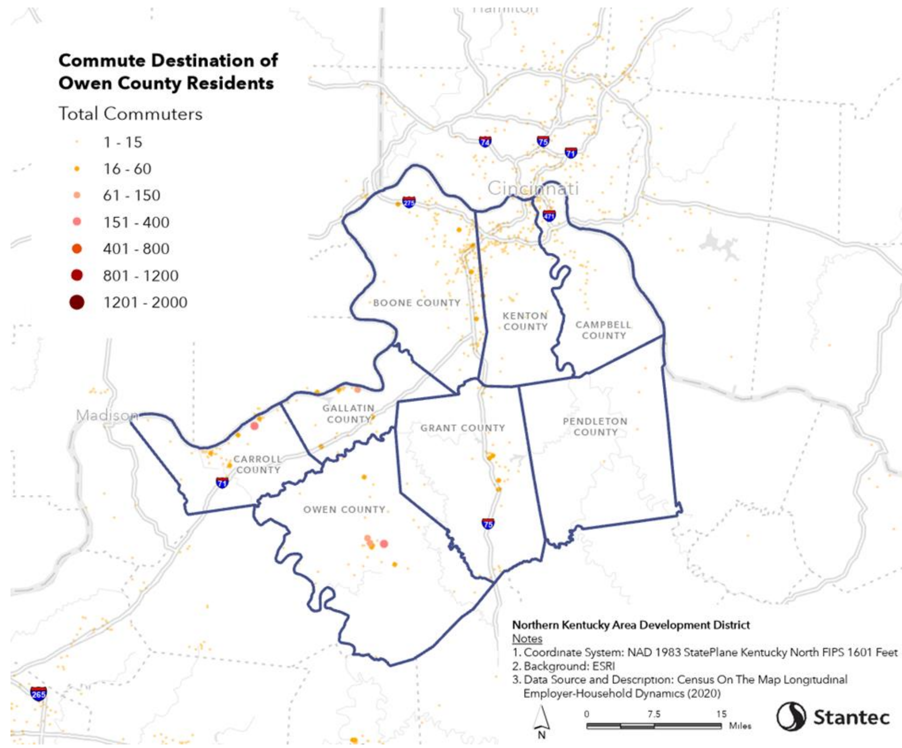
Residents commute to adjacent counties

Chart and map of work locations for county residents

County Residents: Commute Destination

Source: LEHD, 2020





Owen is relatively balanced with a surplus of inexpensive 3-bed ownership units and deficiency in 1-bed ownership units.

Housing in this county is relatively affordable and reflects a rebounding economy.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	103	99	43	9	17	83	169	43
$15,000-24,999	$521	44	48	33	10	14	77	145	57
$25,000-34,999	$729	57	91	46	8	9	63	195	71
$35,000-49,999	$1,042	31	75	26	7	10	89	211	62
$50,000-74,999	$1,563	26	88	91	26	12	84	287	132
$75,000-99,999	$2,083	7	22	33	11	10	52	164	78
$100,000-149,999	$3,125	13	27	23	3	5	34	206	203
$150,000-199,999	$4,167	2	4	12	16	0	10	44	95
$200,000 or more	--	1	5	11	1	0	4	36	94

Owen is relatively balanced with a surplus of inexpensive 3-bed ownership units and deficiency in 1-bed ownership units.

Housing supply is relatively limited to single family and manufactured housing units built on rural lots. These units tends to be 2-3 bedrooms in size, and affordable construction (modular/manufactured) rather than suburban 'models' more frequent in suburban subdivisions.

Rental units are sparse.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	8	141	277	28
$15,000-24,999	$521	6	0	0	0	12	104	288	20
$25,000-34,999	$729	57	27	0	0	4	87	438	50
$35,000-49,999	$1,042	9	57	17	0	14	66	535	84
$50,000-74,999	$1,563	36	265	230	0	4	103	528	124
$75,000-99,999	$2,083	11	151	249	27	6	61	347	95
$100,000-149,999	$3,125	3	21	61	47	9	42	228	106
$150,000-199,999	$4,167	0	0	0	1	1	8	61	25
$200,000 or more	--	0	0	0	0	2	4	32	14

Owen is relatively balanced with a surplus of inexpensive 3-bed ownership units and deficiency in 1-bed ownership units.

Housing in this county is relatively affordable and reflects a rebounding economy.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-103	-99	-43	-9	-9	58	108	-15
$15,000-24,999	$521	-43	-48	-33	-10	-2	27	143	-37
$25,000-34,999	$729	-37	-81	-46	-8	-5	24	243	-21
$35,000-49,999	$1,042	-28	-52	-13	-7	4	-23	324	22
$50,000-74,999	$1,563	10	177	138	-26	-8	19	241	-8
$75,000-99,999	$2,083	4	129	216	16	-4	9	183	17
$100,000-149,999	$3,125	-10	-6	38	44	4	8	22	-97
$150,000-199,999	$4,167	-2	-4	-12	-15	1	-2	17	-70
$200,000 or more	--	-1	-5	-11	-1	2	0	-4	-80

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: Disbursed and Rural

* 'New' Development is post-2000

New construction of single family and manufactured homes in Owen County are geographically disbursed and located off of county highways. Only one new subdivision with 5 single-family attached rowhouses has been built. The majority of housing is rural in character.

		Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	3	9	0	1	5	7	2
$15,000-24,999	$521	4	24	1	0	2	2	0
$25,000-34,999	$729	4	42	6	0	5	16	2
$35,000-49,999	$1,042	2	38	6	3	5	29	2
$50,000-74,999	$1,563	3	24	3	3	26	64	7
$75,000-99,999	$2,083	1	12	0	3	24	72	18
$100,000-149,999	$3,125	0	4	1	5	19	61	33
$150,000-199,999	$4,167	0	1	0	0	3	16	8
$200,000 or more	--	0	0	0	1	2	9	4

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Single Family Attached

Market Price: $239,900 ($1,600 month cost of ownership)

3 Bedroom, 3 Bath

5 Units

New Rental: Not much!

* 'New' Development is post-2000

Rented manufactured homes are the majority of new rental stock. Owen remains distant from most major labor markets, making market-rate rental housing an unattractive option for housing developers.

Proximity to Carrollton does mean some homeowners will choose to rent properties should an opportunity exist, but new developers are unlikely to target Owen County for new development.

		Manufactured Home				Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
$50,000-74,999	$1,563	1	7	24	0	0	0	0	0
$75,000-99,999	$2,083	0	4	30	2	1	3	9	1
$100,000-149,999	$3,125	0	1	1	2	0	1	8	4
$150,000-199,999	$4,167	0	0	0	0	0	0	0	1

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

The number of households in Owen County has been fluctuating in the last decade

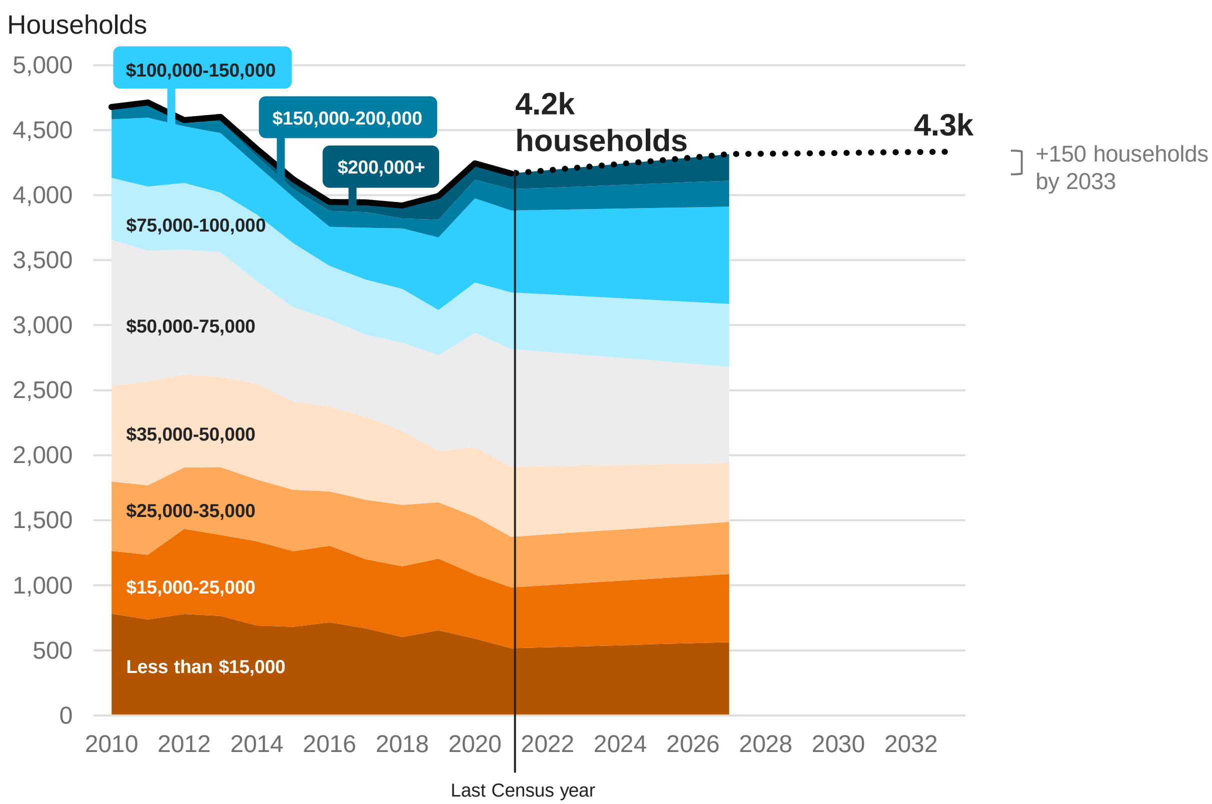
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Owen County is lost households between 2010 and 2015 but is showing some growth potential except in the middle-income segment.

Owen County Households, by income bracket

Source: ACS, ESRI, Woods & Poole



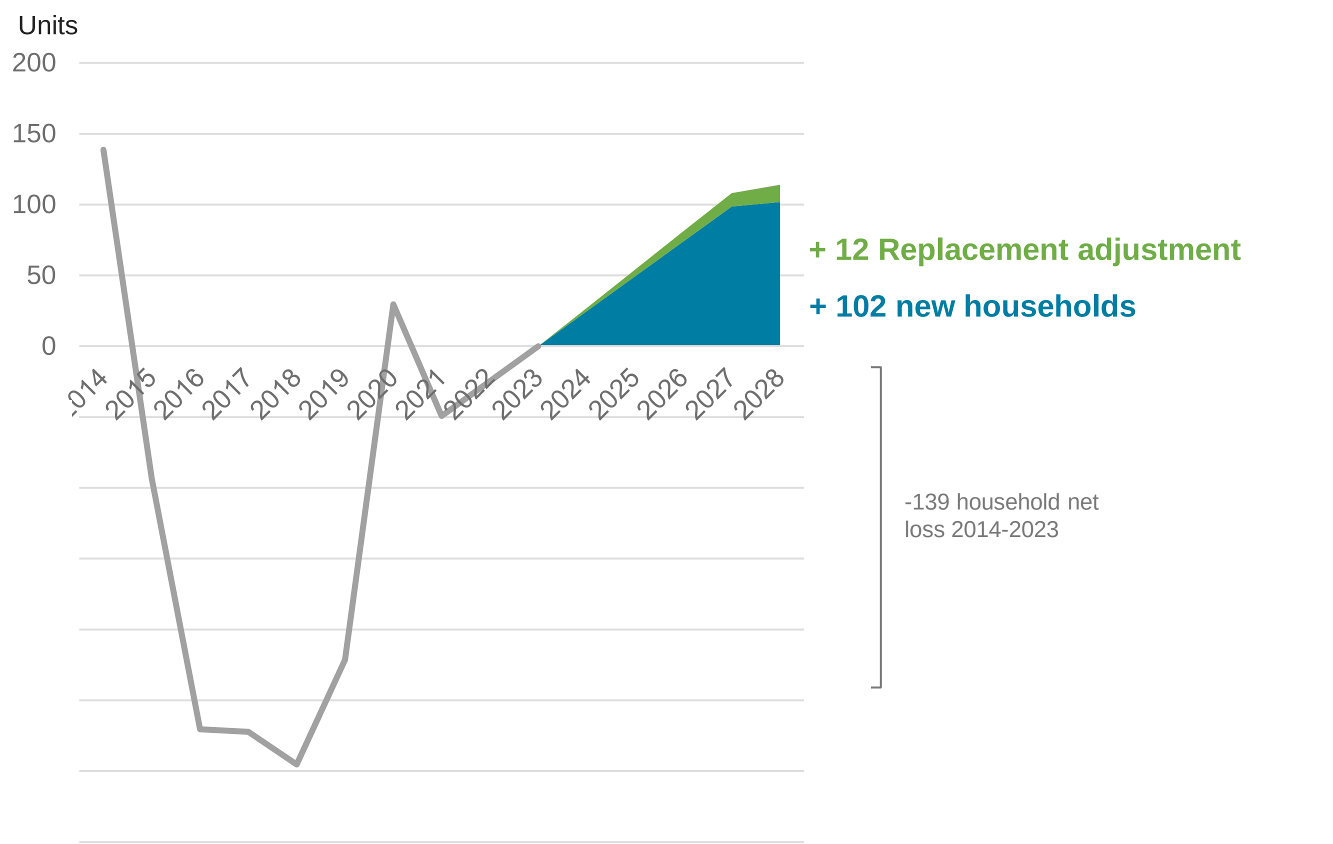
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **144 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

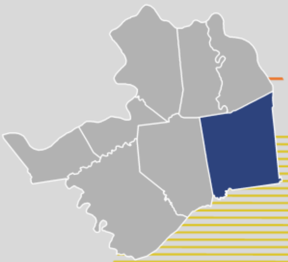
The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

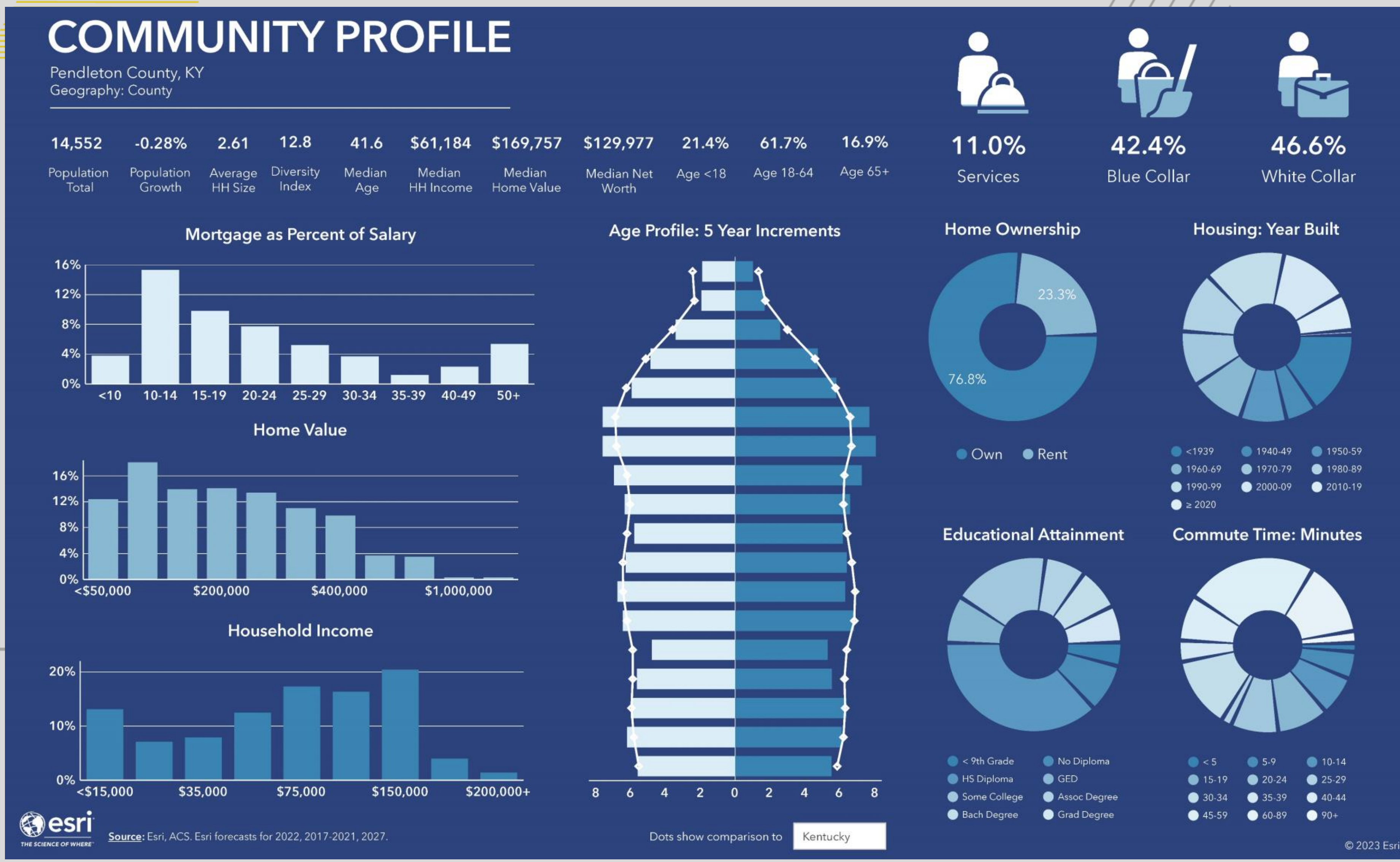
	Rent				*Own*				
Maximum monthly housing cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	2	2	1	0	0	0	0	0	<60% AMI
$521	1	1	1	0	0	0	0	0	<60% AMI
$729	2	2	1	0	0	0	1	0	<60% AMI
$1,042	3	3	2	0	0	1	1	0	<60% AMI
$1,563	5	6	4	1	0	2	4	2	<60% AMI
$2,083	2	3	2	1	0	1	3	2	60-80% AMI
$3,125	2	4	4	1	0	2	7	6	80-120% AMI
$4,167	1	1	1	0	0	1	2	3	>120% AMI
More than $4,167	1	1	1	1	0	1	3	5	>120% AMI

Notes:

- *Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $70,800*



Pendleton County



High Level Analytical Take-Aways

- **Connectivity:**
  - The region remains isolated from major employment and retail centers, demonstrated by a smaller percentage of regional trip destination end points and higher commute times for Pendleton residents.
  - Falmouth remains the county's center, with CVS, Dollar General, Wyatt's Supervalu and Family Dollar operating as the main retailers. Larger retailers such as Walmart Market in Willamstown also attract trips.

- **Economy:**
  - The region – in particular in the southeast - remains isolated from major employment and retail centers. However Pendleton does have higher net work households who live in newer suburban subdivisions in the northern portion of the county
  - Poverty remains high in the southeastern portion of the county where incomes and housing values are lower, while the northeastern part of the county with greater proximity to the river have higher home values and less poverty.

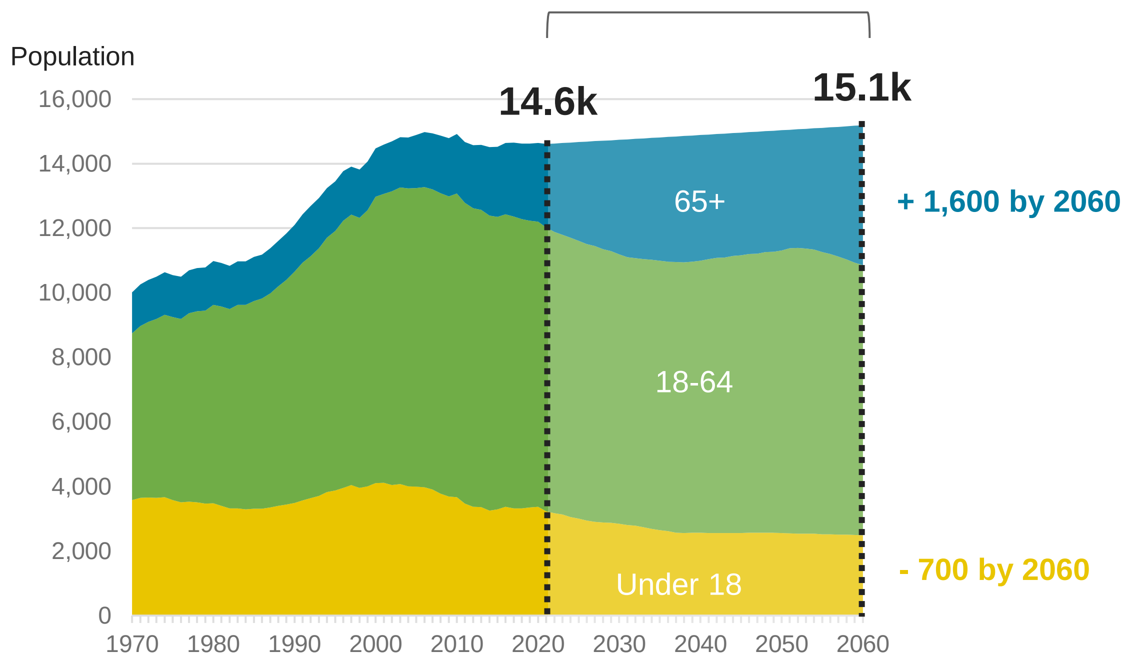
- **Housing:**
  - Housing in Pendleton is rural in character, with most housing built adjacent to major county roadways. A handful of new subdivisions are emerging in the northern section of the county and closer to the river, with similarities in housing design, aesthetic, and market to southern Campbell
  - Manufactured homes are common for newer construction, with manufactured homes often on larger rural pieces of land rather than larger and more dense mobile home parks. Manufactured homes are the majority of affordable stock
  - New development is limited to smaller subdivisions in the northern part of the county near Butler.
  - Little new rental housing has been added directly, contributing to higher rental price pressure for those who want to live in the region, contributing to high rent burdenship

Slight increase in overall population with more seniors and fewer school children

Pendleton County, KY is expected to experience a slight increase in population until 2060, with a shift towards an older demographic and a decrease in the number of children.

Population, by age group

Source: Woods & Poole



Pendleton is projected to add 600 jobs by 2060

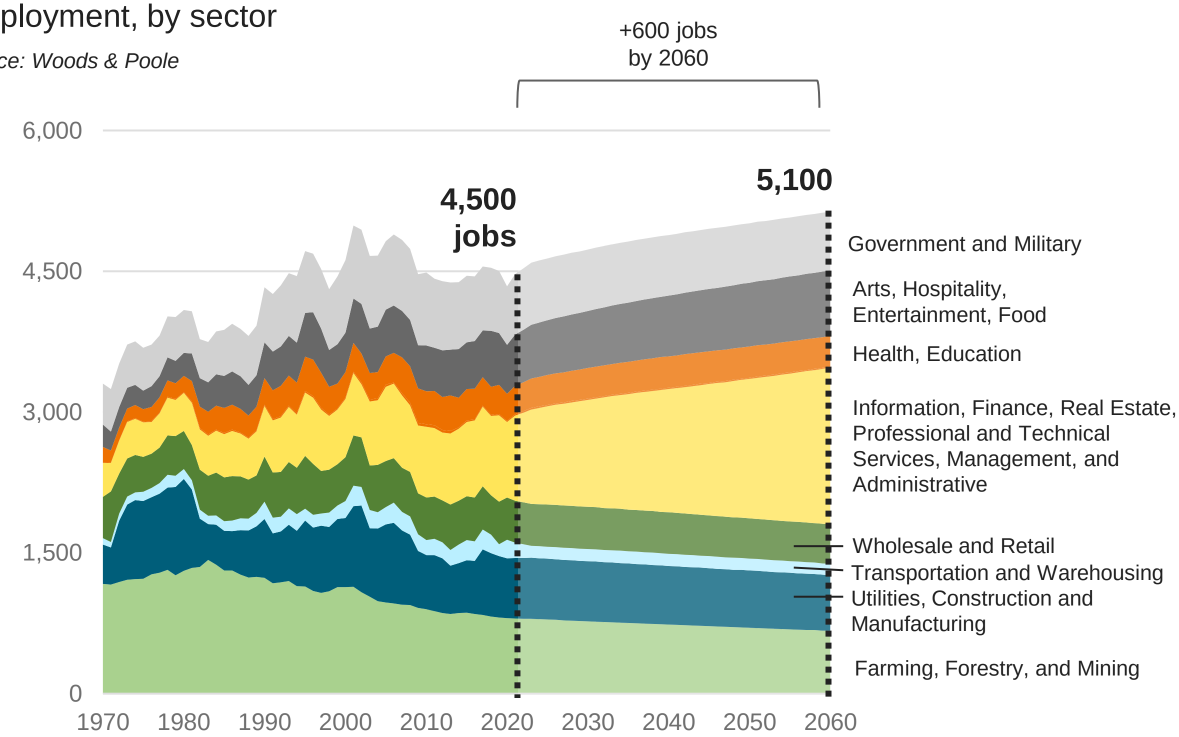
The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county.

The employment data are by two-digit North American Industry Classification System (NAICS) industry. Woods & Poole has estimated the NAICS industry data for 1969-2000 from the BEA SIC 1969-2000 employment industry data and the NAICS employment industry data for the years 2001-2020. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.

The accuracy of Woods & Poole's projections has been comparable to the accuracy of other regional forecasting programs, such as the Department of Commerce Bureau of Economic Analysis (BEA) and Census Bureau projections over comparable forecast horizons.

Employment, by sector

Source: Woods & Poole

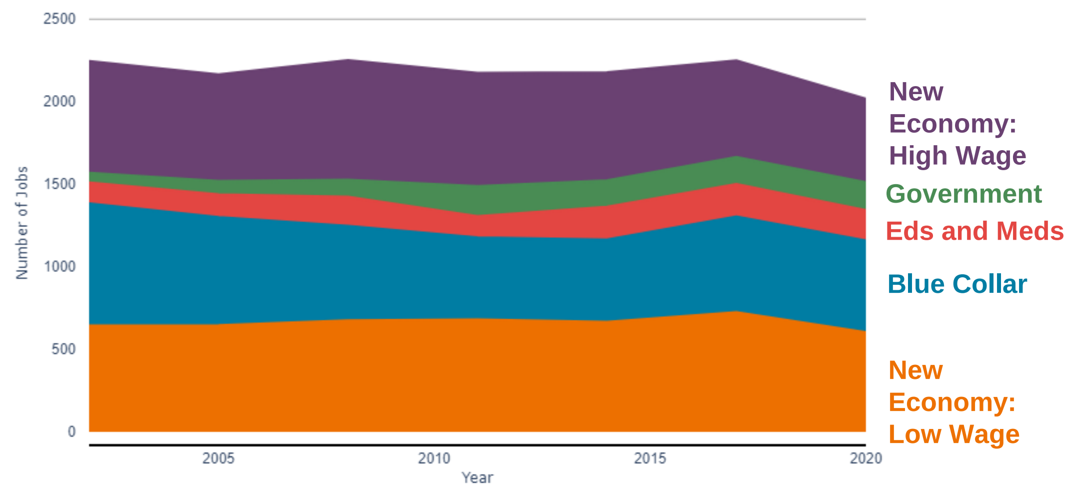


A Rural Economy with More Commuters

Pendleton is largely a commuter rural county, with 16% working in County. In county workers make up near 50% of all those employed in the county, with people commuting in from nearby counties and Ohio counties near to the east. Of jobs located in the region, low wage services are common as are mid-tier professional, governmental, and healthcare services.

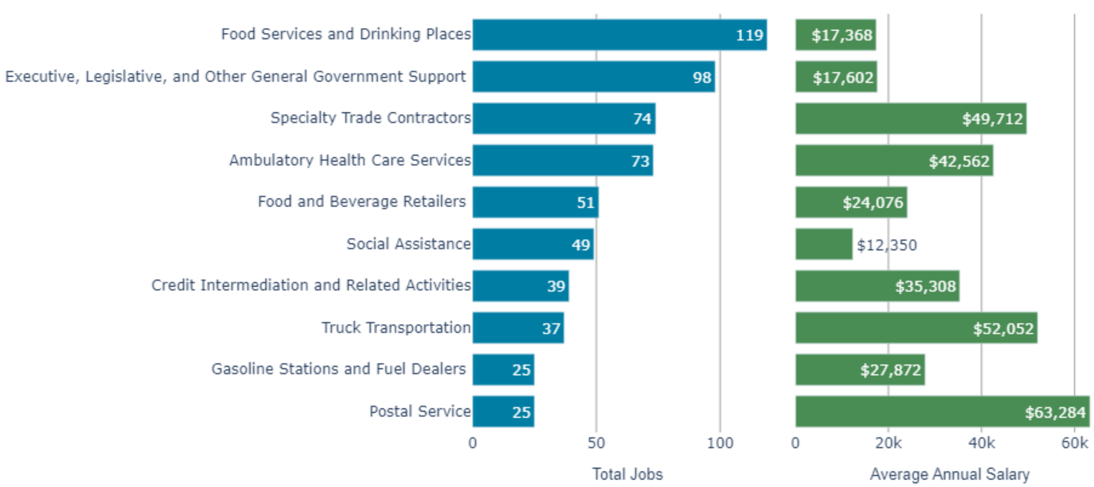
County Industrial Structure

Source: LEHD, 2002-2020



County Wages in Key Occupations

Source: BLS: Quarterly Census of Employment and Wages (3Q 2022)
**sample is not exhaustive of all employees, but is indicative of proportions*

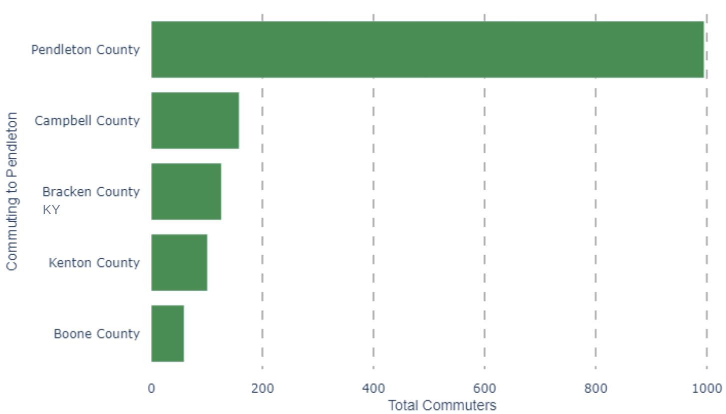


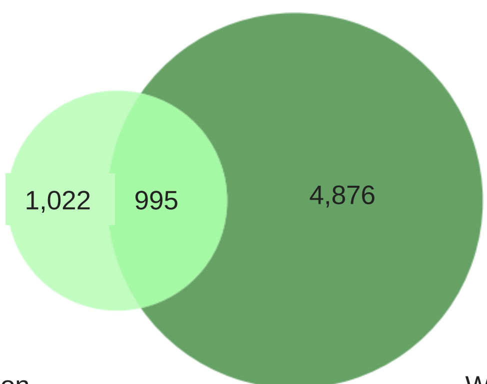
Pendleton County: Rural and Removed

Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020

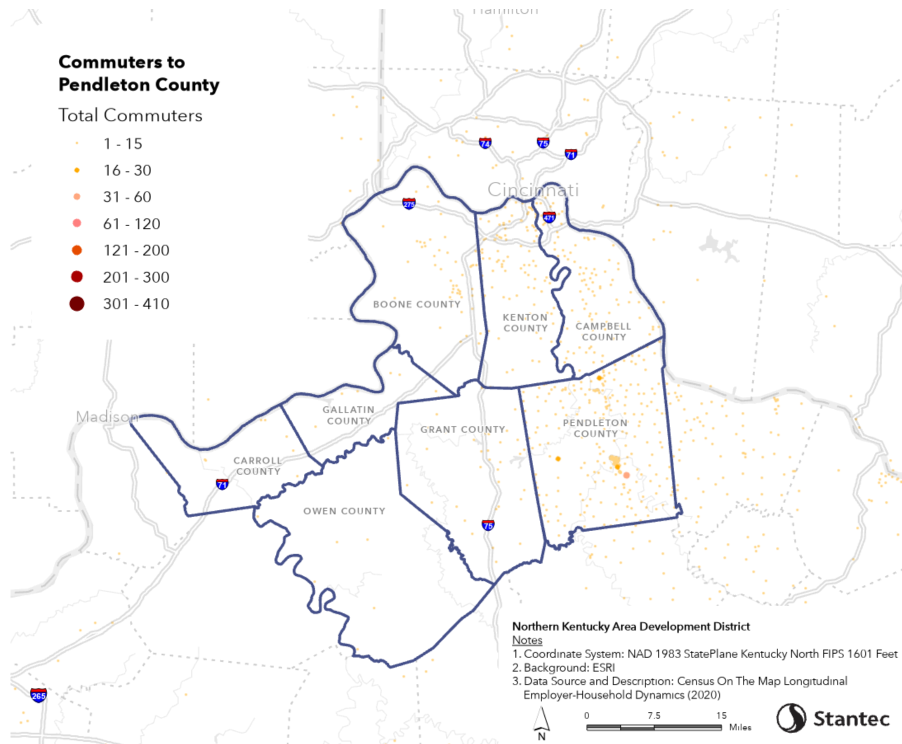




Work in Pendleton, Live Elsewhere

Live and Work in Pendleton

Work Elsewhere, Live in Pendleton



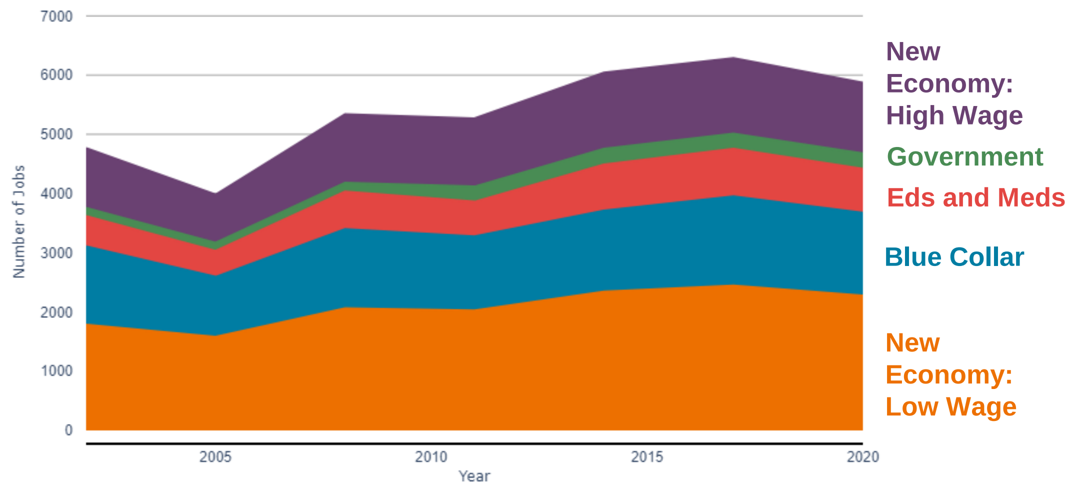
Pendleton County: Commuter Growth

Pendleton workers commute to an even sample of industries in the region, but few into Cincinnati proper. Many commute south into Franklin County, and west into Carroll to fill blue-collar positions. The total number of residents grew in the 2000s and again between 2012-2017. About 10% of workers are commuting to Boone for employment – a lengthy drive.

As a whole, higher proportions work in middle-income positions in blue-collar and logistics jobs. The median income in Pendleton is $61,184, higher than other Rural counties, but still below the three more urbanized counties.

County Residents: Industry Sector Employed

Source: LEHD, 2002-2020

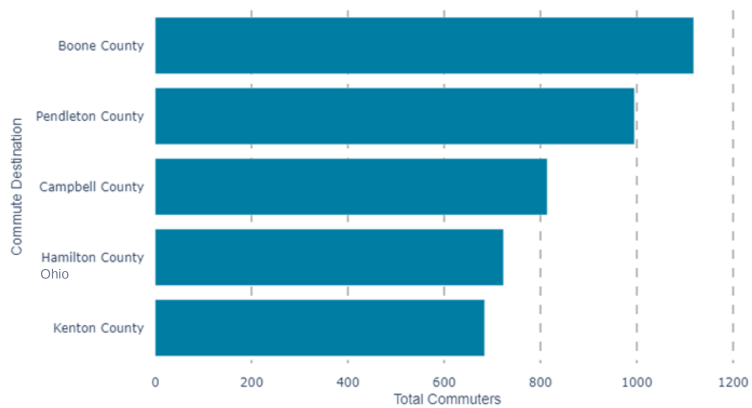


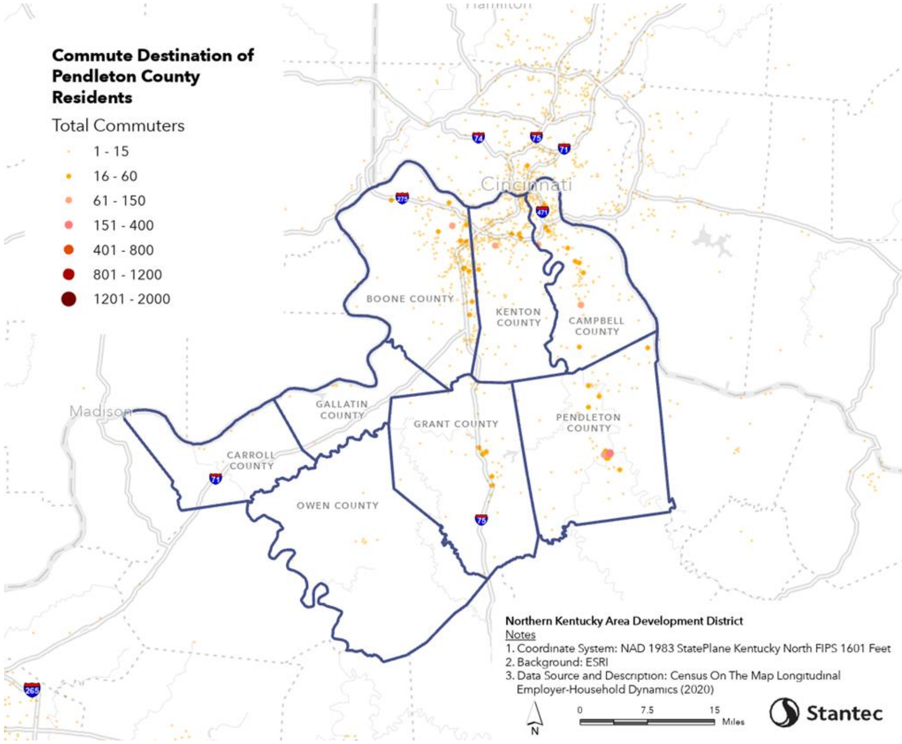
Commuters have driven household growth

Chart and map of work locations for county residents

County Residents: Commute Destination

Source: LEHD, 2020





Pendleton is deficient in smaller ownership homes for lower- and middle-income households

Housing demand is situated in units oriented towards lower and lower-middle incomes households demanding 2-3BR or more.. Demand for affordable rental units exists.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	117	146	94	6	22	134	233	61
$15,000-24,999	$521	53	65	26	6	16	50	181	42
$25,000-34,999	$729	63	90	49	9	12	86	229	67
$35,000-49,999	$1,042	31	63	30	5	9	98	263	89
$50,000-74,999	$1,563	36	92	89	27	16	97	431	145
$75,000-99,999	$2,083	15	50	45	9	11	77	366	190
$100,000-149,999	$3,125	13	30	47	17	5	53	375	287
$150,000-199,999	$4,167	1	1	4	2	0	7	63	97
$200,000 or more	--	2	7	7	2	1	6	49	114

Pendleton is deficient in smaller ownership homes for lower- and middle-income households

Housing purposefully built for the rental market is sparse, with a few garden and low-rise style complexes built in the 1980s and older mixed use in the small towns. Much of the multi-family is for the senior market.

Single family homes range from more affordable manufactured housing near smaller towns like Butler, Peach Grove and Mt Auburn and adjacent to county roads, while middle-range housing consists of single family homes, often built in a similar spatial pattern. A handful of small subdivisions exist in the northeastern portion of the county with construction aesthetics targeted to commuters.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	0	0	0	0	11	122	133	18
$15,000-24,999	$521	0	4	0	0	12	102	262	33
$25,000-34,999	$729	53	14	0	0	8	116	530	56
$35,000-49,999	$1,042	11	30	49	0	13	117	659	106
$50,000-74,999	$1,563	17	260	298	2	5	100	492	113
$75,000-99,999	$2,083	29	161	323	55	6	47	298	141
$100,000-149,999	$3,125	4	21	48	38	2	21	162	130
$150,000-199,999	$4,167	0	0	1	3	0	4	18	29
$200,000 or more	--	0	0	0	0	0	3	7	6

Pendleton is deficient in smaller ownership homes for lower- and middle-income households

Housing is relatively balanced with a slight lack of housing for middle incomes.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-117	-146	-94	-6	-11	-12	-100	-43
$15,000-24,999	$521	-53	-64	-26	-6	-4	52	81	-9
$25,000-34,999	$729	-58	-83	-49	-9	-4	30	301	-11
$35,000-49,999	$1,042	-30	-58	-18	-5	4	19	396	17
$50,000-74,999	$1,563	-19	168	209	-25	-11	3	61	-32
$75,000-99,999	$2,083	14	111	278	46	-5	-30	-68	-49
$100,000-149,999	$3,125	-9	-9	1	21	-3	-32	-213	-157
$150,000-199,999	$4,167	-1	-1	-3	1	0	-3	-45	-68
$200,000 or more	--	-2	-7	-7	-2	-1	-3	-42	-108

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership

* 'New' Development is post-2000

New construction of single family and manufactured homes in Pendleton County are geographically disbursed. Most new construction is oriented towards higher income households on rural lots.

Recent subdivisions were completed between 2000-2008, such as new ranch homes on Quail Rd or Cory Ln in Butler. Marketed for commuters to Cincinnati.

		Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	5	12	1	0	1	3	1
$15,000-24,999	$521	3	22	0	1	0	3	0
$25,000-34,999	$729	4	78	4	0	0	6	1
$35,000-49,999	$1,042	4	95	10	1	4	30	5
$50,000-74,999	$1,563	1	31	3	0	5	80	23
$75,000-99,999	$2,083	1	3	0	1	9	110	51
$100,000-149,999	$3,125	0	2	0	0	10	79	68
$150,000-199,999	$4,167	0	0	0	0	2	9	13
$200,000 or more	--	0	0	0	0	1	3	6

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Single Family Attached

Quail Run Road Subdivision
Built early 2000s
12-20 Properties

Market Price: $280,000-$400,000
($2,200 month cost of ownership)

3 Bedroom, 2 Bath

New Rental: Not much!

* ‘New’ Development is post-2000

Rented manufactured homes are the majority of new rentals.

One 5-unit Apartment building exists in Butler – the only one constructed in the past 22 years.

		Apartments	Manufactured Home			Single Family			
Household Income Required	Max Costs	2BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
$25,000-34,999	$729	5	0	0	0	0	0	0	0
$50,000-74,999	$1,563	0	3	32	0	0	0	4	0
$75,000-99,999	$2,083	0	1	24	2	2	2	14	3
$100,000-149,999	$3,125	0	0	1	0	0	2	9	6
$150,000-199,999	$4,167	0	0	0	0	0	0	0	1

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

Apartment Complex

111 Williams Street, Butler, KY
Built 2001
5 Units

Market Rent: $722 (estimate)
2 Bedroom, 1 Bath

The upper-income segment has been growing in Pendleton County in the past decade

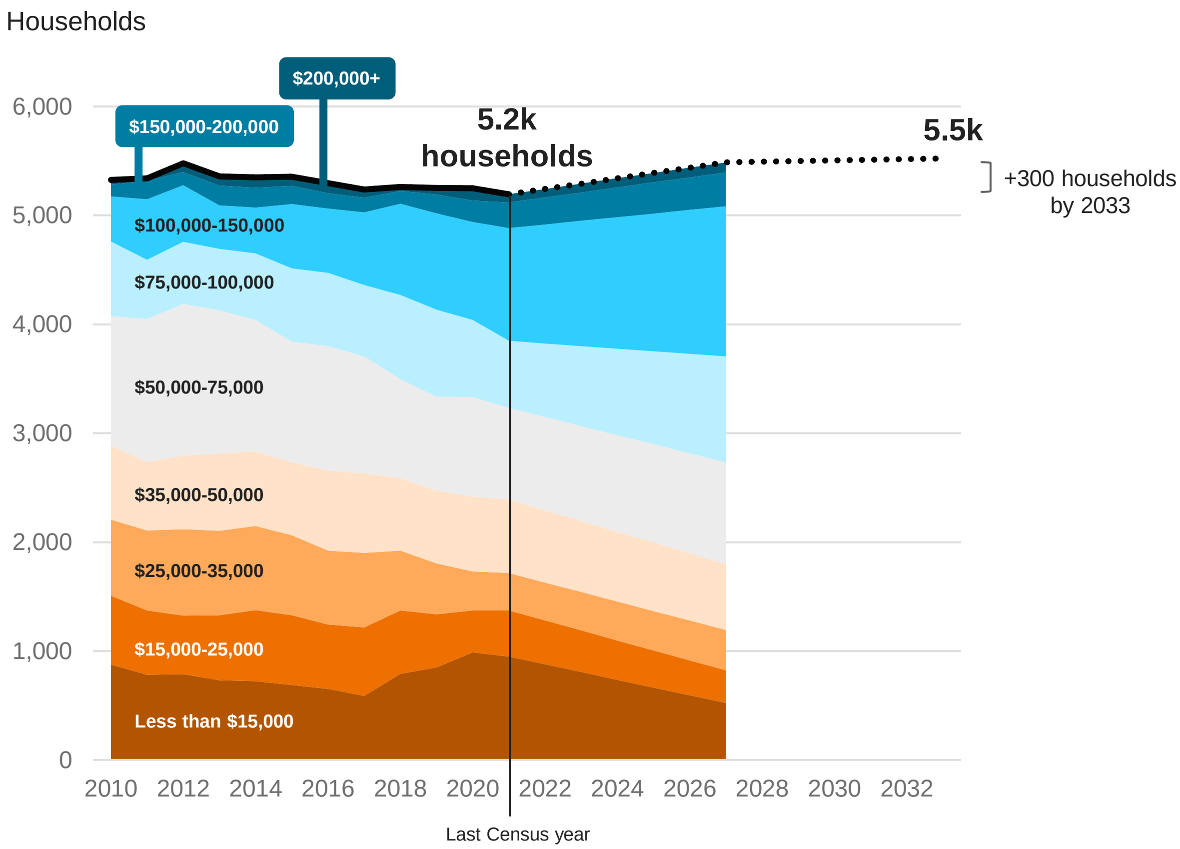
This table tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Pendletown County is expected to growth in the next 5 years as it adds commuters to higher paying jobs outside the county.

Households, by income bracket

Source: ACS, ESRI, Woods & Poole



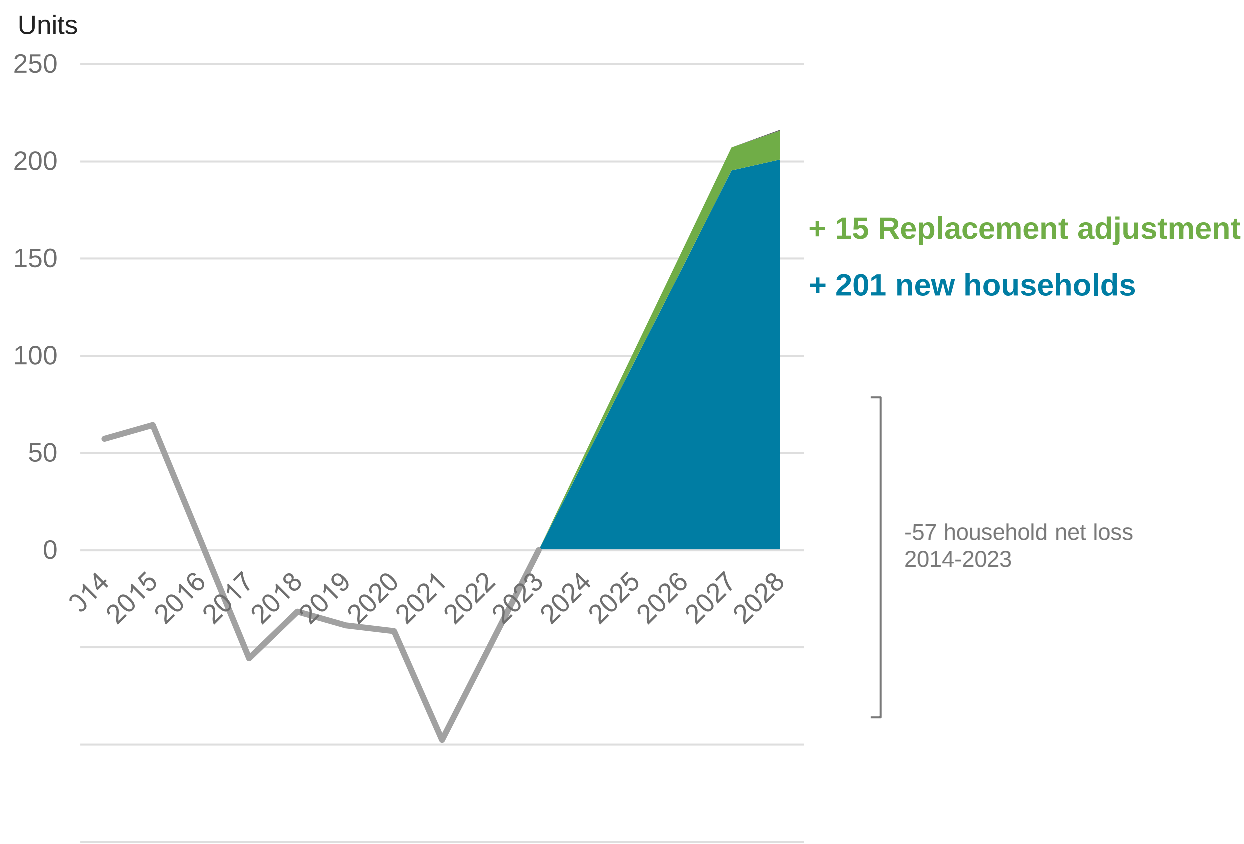
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **216 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

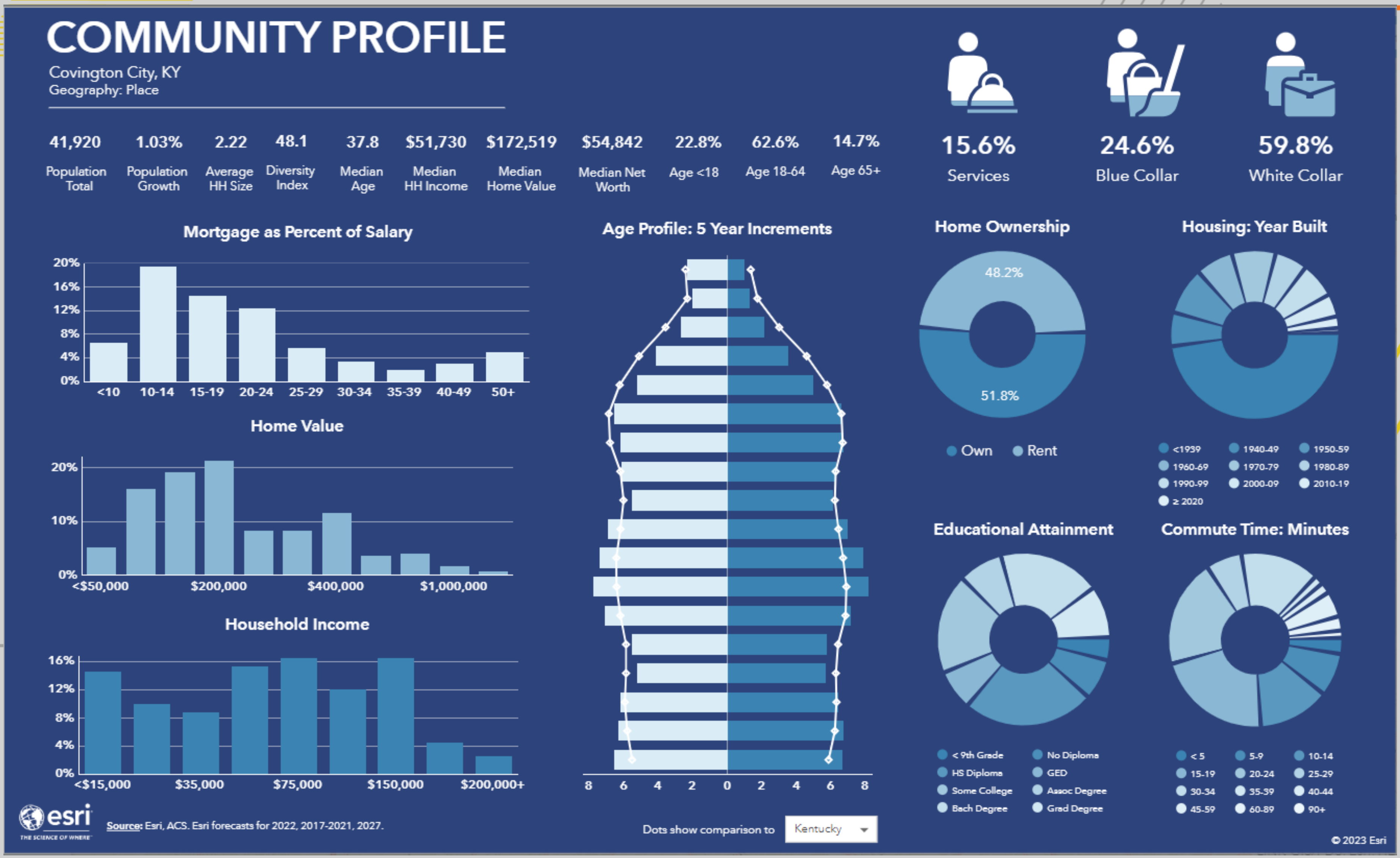
5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

	Rent				*Own*				
Maximum monthly housing cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+	
$313	4	4	2	0	0	0	1	0	<60% AMI
$521	5	5	2	0	0	1	1	0	
$729	4	5	2	0	0	1	1	0	
$1,042	5	6	3	1	0	1	3	1	
$1,563	9	11	6	2	1	3	7	3	
$2,083	5	8	5	1	0	2	9	5	
$3,125	4	8	7	2	0	3	13	11	60-80% AMI
$4,167	1	2	2	1	0	1	4	5	80-120% AMI
More than $4,167	1	1	1	1	0	1	4	6	>120% AMI

Notes:

- *Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *The county's Area Median Income (AMI) = $103,600*

Covington City



High Level Analytical Take-Aways

- **Connectivity:**
  - Covington is the major urban hub of the NKADD region with close proximity to both Boone's logistics employment center and downtown Cincinnati
  - The central location means it is also easy to get to, with many people commuting to Covington rather than living where they work

- **Economy:**
  - Covington's share of medical and public sector jobs is growing at a faster rate than neighboring counties, signaling strong growth in middle to higher-income professions
  - Conversely, Covington contains a higher share of low-income households, many of whom are commuting elsewhere to work

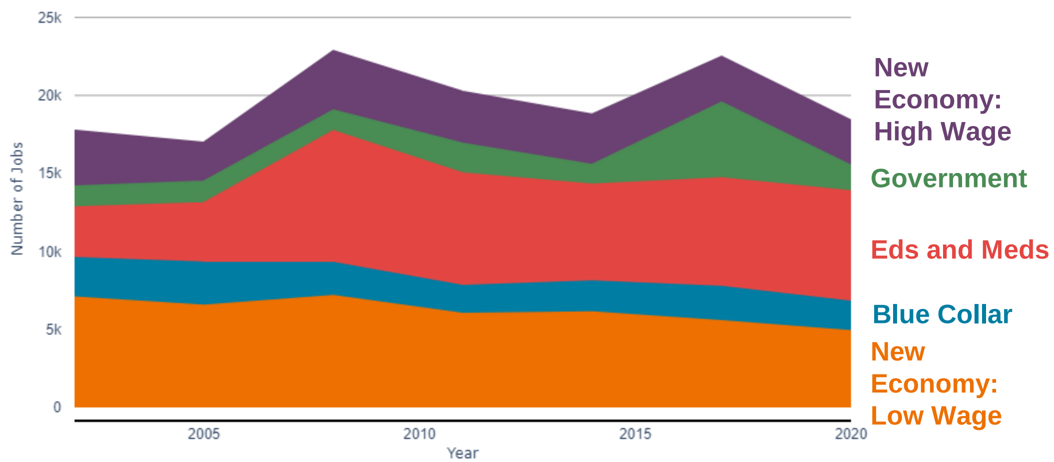
- **Housing:**
  - Covington's new development is concentrated in the rental market as new infill rental units and conversion of units back to duplexes and triplexes is common in walkable, historic districts. Lack of available space constrains the development of new single family tract housing, a housing type common elsewhere in the region. New development is targeting professionals who work both within Covington and Cincinnati.
  - The stock of affordable rental housing is high in Covington relative to elsewhere, hence why many people in lower-income industries live in Covington and work elsewhere. Many affordable units, however, are older and in substandard condition. Redevelopment may ease pricing pressure on higher quality affordable units, but a targeted strategy to increase the stock of deeply affordable units for those earning less than 50% AMI is necessary.
  - Balance must be struck to encourage development without displacement, such as encouraging transit-oriented development projects that trade height easements for affordability requirements. Infill and remodels – especially towards rejuvenating duplexes, triplexes and rowhouses in targeted neighborhoods – could increase the stock of more affordable market-rate rentals and ownership housing, creating additional housing stock for those commuting to Covington for work in middle income occupations but currently living elsewhere.

A Regional employment center for Eds and Meds jobs

As a regional urban center, the city of Covington is an employment center with government, education, and medical jobs represented in higher proportions compared to the rest of the NKADD region. Growth has been fastest in the Eds and Meds sector. The lower wage service sector jobs are concentrated in retail and food service as the region's larger logistics warehouses are in more suburban locations with cheaper land and larger lots.

Covington city Industrial Structure

Source: LEHD, 2002-2020

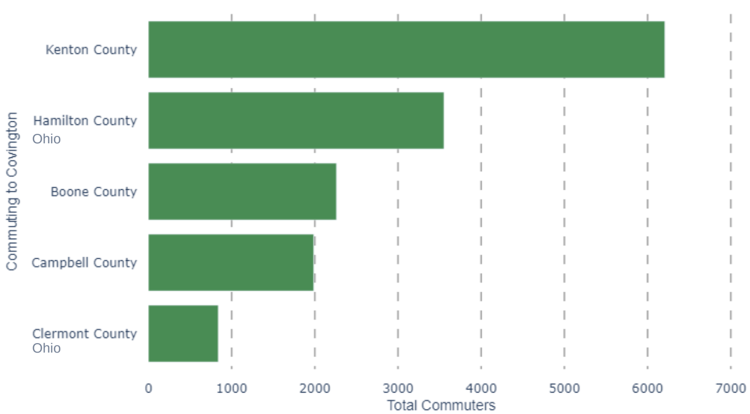


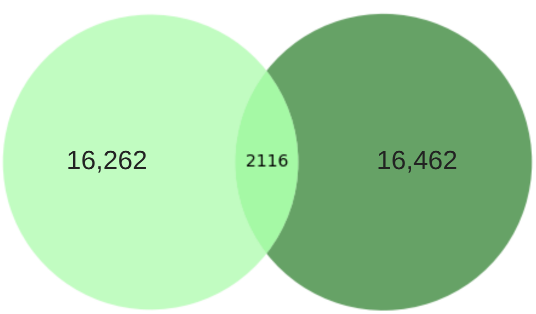
Employees come from across the region

Chart and map of home locations for county employees

Commuting to County Jobs

Source: LEHD, 2020

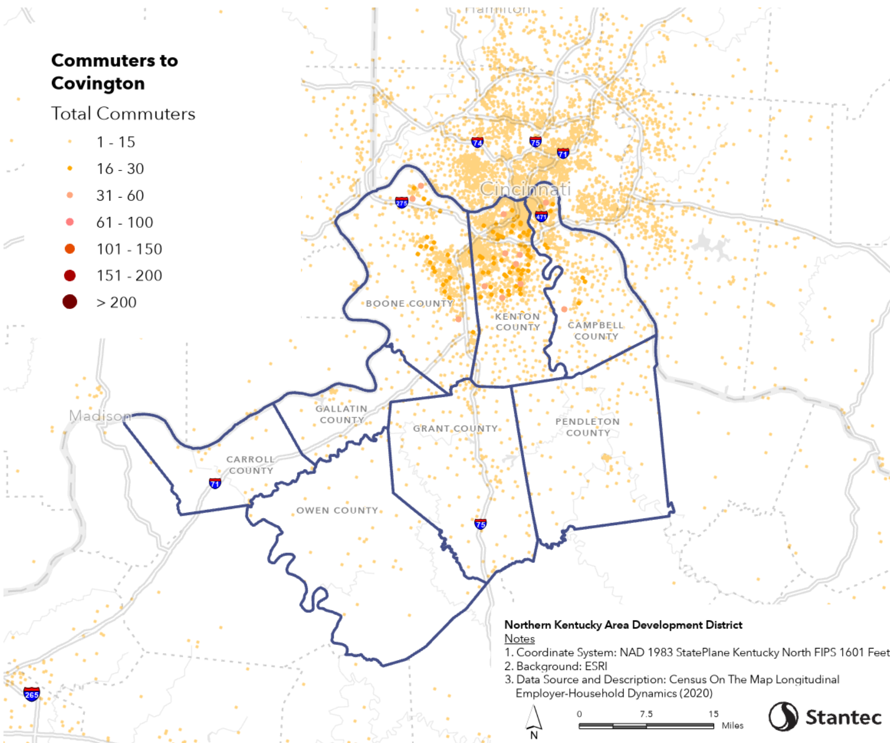




Work in Covington, Live Elsewhere

2,116 Live and Work in Covington

Work Elsewhere, Live in Covington



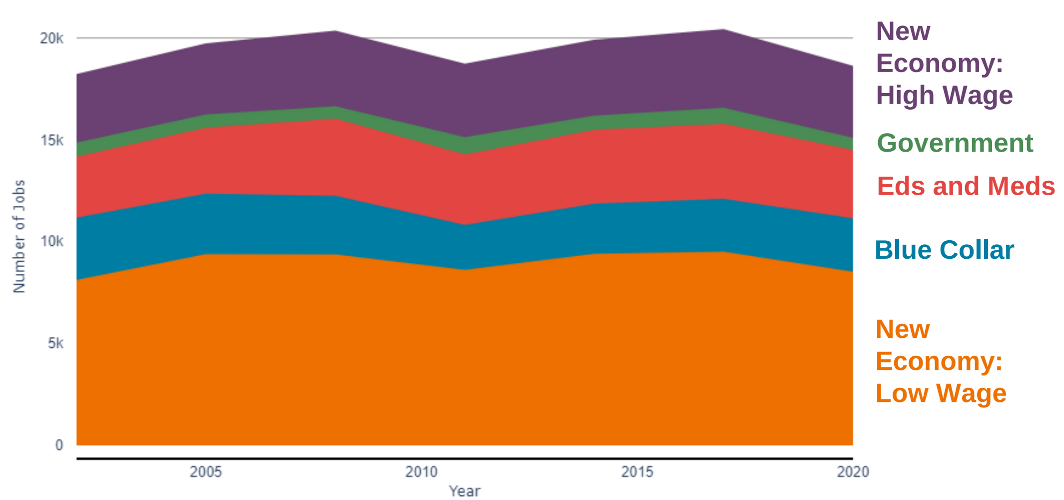
Many Covington residents work in lower-wage New Economy industries outside the area.

Many Covington residents work in lower wage industries outside of Covington city, with many commuting to Boone and Hamilton counties to work in retail and warehousing. There are also higher proportions of the region's lowest earning households concentrated in Covington. As a result, the median household income is $20K less than Kenton County as a whole.

There is also a slowly growing contingent of New Economy high wage and Eds and Meds workers who live in Covington proper, especially in the downtown region where redevelopment is creating housing for younger professionals.

Covington Residents: Industry Sector Employed

Source: LEHD, 2002-2020

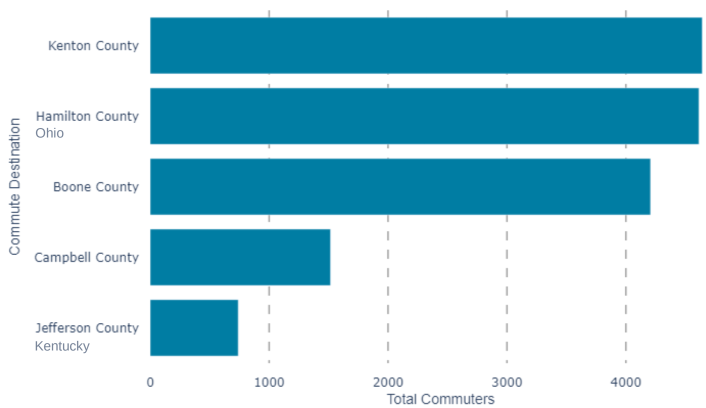


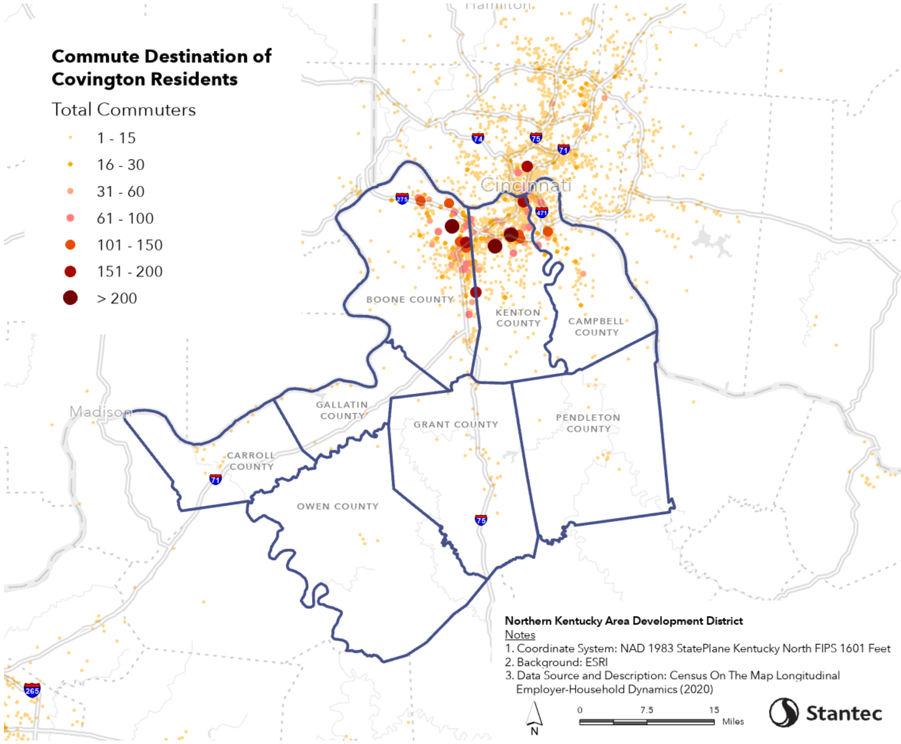
Covington City: A broad commuting profile

Chart and map of work locations for city residents

County Residents: Commute Destination

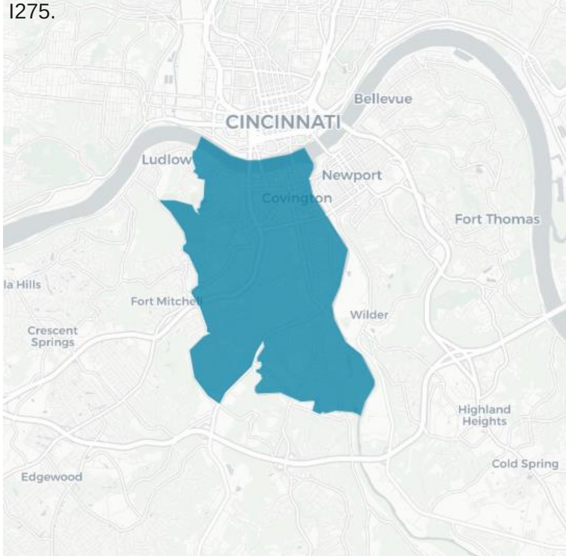
Source: LEHD, 2020





Covington contains a larger proportion of low-income houses in the rental market, and strong demand for mid-sized, middle-income households

Deeply affordable housing is required for a large proportion of current Covington residents. This also reflects the present of more dense senior housing and public housing available currently available in Covington.



Reference map for Covington gap analysis. The defined region contains city block groups north of I275.

Housing demand: households profiled by tenure, size, and spending capacity

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				**Own**			
Household Income Required	**Max Monthly Housing Cost**	**1BR**	**2BR**	**3BR**	**4BR+**	**1BR**	**2BR**	**3BR**	**4BR+**
Less than $15000	$313	969	870	422	79	57	201	356	112
$15,000-24,999	$521	544	549	337	98	34	163	297	64
$25,000-34,999	$729	442	553	299	51	24	160	351	111
$35,000-49,999	$1,042	579	698	372	79	34	208	570	169
$50,000-74,999	$1,563	377	600	392	79	41	298	920	361
$75,000-99,999	$2,083	116	218	144	29	30	126	625	321
$100,000-149,999	$3,125	83	160	141	38	17	164	756	581
$150,000-199,999	$4,167	33	35	35	12	3	24	155	181
$200,000 or more	--	24	31	10	2	5	26	149	295

Covington supply contains higher proportions of lower income rental housing and mid-tier ownership.

Covington contains a large stock of rental housing, ranging from older mixed-use neighborhoods with duplexes, triplexes, and townhomes, to suburban garden and low-rise style apartment complexes, to luxury high-rise and mid-rise apartments near the river.

The city also contains a higher concentration of single-family homes in mid to lower price points, a consequence of older housing stock relative to newer developments further afield.

Housing supply: units categorized by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15,000	$313	9	0	0	0	6	37	57	17
$15,000-24,999	$521	416	4	2	0	31	190	125	14
$25,000-34,999	$729	1,279	549	13	0	83	404	425	52
$35,000-49,999	$1,042	1,299	621	314	13	82	783	1,714	256
$50,000-74,999	$1,563	376	1,060	625	18	40	451	1,352	498
$75,000-99,999	$2,083	259	639	971	222	16	229	566	350
$100,000-149,999	$3,125	144	184	115	491	3	143	374	477
$150,000-199,999	$4,167	0	53	16	22	3	77	69	116
$200,000 or more	--	0	0	0	0	3	42	70	59

Covington needs more affordable rental units relative to current supply.

Housing is relatively balanced with a slight lack of housing for middle incomes.

Difference between supply and demand: units by tenure, size, and monthly cost

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

		Rent				Own			
Household Income Required	Max Monthly Housing Cost	1BR	2BR	3BR	4BR+	1BR	2BR	3BR	4BR+
Less than $15000	$313	-967	-870	-422	-79	-51	-164	-299	-95
$15,000-24,999	$521	-472	-547	-336	-98	-3	27	-172	-50
$25,000-34,999	$729	-236	-419	-292	-51	59	244	74	-59
$35,000-49,999	$1,042	-442	-555	-231	-77	48	575	1,144	87
$50,000-74,999	$1,563	-265	-110	175	-62	-1	153	432	137
$75,000-99,999	$2,083	-63	333	811	193	-14	103	-59	29
$100,000-149,999	$3,125	-78	-101	-26	453	-14	-21	-382	-104
$150,000-199,999	$4,167	-33	-13	-19	10	0	53	-86	-65
$200,000 or more	--	-24	-31	-10	-2	-2	16	-79	-236

Note on interpretation: Blue cells denote a deficit of housing at that size and price point. For example, there is a deficit of one- and two-bedroom units in the home ownership market. The darker the color, the deeper the deficit. Red cells represent a housing surplus, or where the supply of housing is larger than current demand. Here, there is a surplus of 3- and 4-bedroom units in mid-price ranges.

New Ownership: New tracts outside the municipal area are attracting development.

* 'New' Development is post-2000

New construction is sparse relative to new ownership development elsewhere in the region as available greenfield sites are sparse. Most new development are infill projects.

Not included here are remodeled properties that are common in historic neighborhoods that have essentially refurbished units to 'new' standards.

		Condominium			Duplex	Manufactured Home	Single Family				Townhouse
Household Income Required	Max Costs	1BR	2BR	3BR	4BR	2BR	1BR	2BR	3BR	4BR+	4BR+
Less than $15,000	$313	0	0	0	0	0	0	2	1	3	0
$15,000-24,999	$521	0	0	0	0	3	1	3	1	1	0
$25,000-34,999	$729	0	0	0	0	0	3	7	10	4	0
$35,000-49,999	$1,042	0	0	0	0	0	0	1	9	15	0
$50,000-74,999	$1,563	0	1	0	0	0	0	0	6	1	0
$75,000-99,999	$2,083	0	0	0	1	0	0	1	6	5	0
$100,000-149,999	$3,125	1	27	3	0	0	0	3	22	10	0
$150,000-199,999	$4,167	1	30	0	0	0	0	1	8	9	1
$200,000 or more	--	2	18	11	0	0	0	1	3	2	5

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

New Rental: A mix of garden and infill luxury low and mid-rise are entering the market.

* ‘New’ Development is post-2000

		Apartments			Duplex				Triplex			Garden			Low-Rise			Mid-Rise		Hi-Rise		Single Family			
Household Income Required	Max Costs	1BR	2BR	3BR	1BR	2BR	3BR	4BR+	2BR	3BR	4BR+	1BR	2BR	3BR	1BR	2BR	3BR	1BR	2BR	1BR	2BR	1BR	2BR	3BR	4BR+
$15,000-24,999	$521	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$25,000-34,999	$729	6	0	0	2	4	0	0	3	0	0	0	4	0	23	22	0	0	0	0	0	0	0	0	0
$35,000-49,999	$1,042	0	6	1	0	2	6	0	0	6	0	56	0	0	18	22	26	0	0	0	0	0	0	0	0
$50,000-74,999	$1,563	52	14	0	0	1	11	4	0	1	1	0	49	0	5	13	4	0	0	0	0	7	34	51	1
$75,000-99,999	$2,083	0	14	4	0	1	5	38	0	0	4	0	0	15	0	0	0	19	0	15	0	2	2	11	26
$100,000-149,999	$3,125	0	0	0	0	0	0	15	0	0	17	0	0	0	0	0	0	0	67	140	0	1	1	2	19
$150,000-199,999	$4,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	1	3

Source: Woods & Poole, Replica, ACS, CoStar, Apartments.com, Padmapper

New rental construction is diverse, ranging form suburban low-rise and garden apartments to new mid-rise and hi-rise units in downtown Covington. Many of the low-rise and garden apartments are competitively prices, whereas mid-rise and high-rise markets are targeting higher income professionals who may work in Covington and Cincinnati but currently live elsewhere.

Covington is expected to add more higher-income households with projected moderate growth.

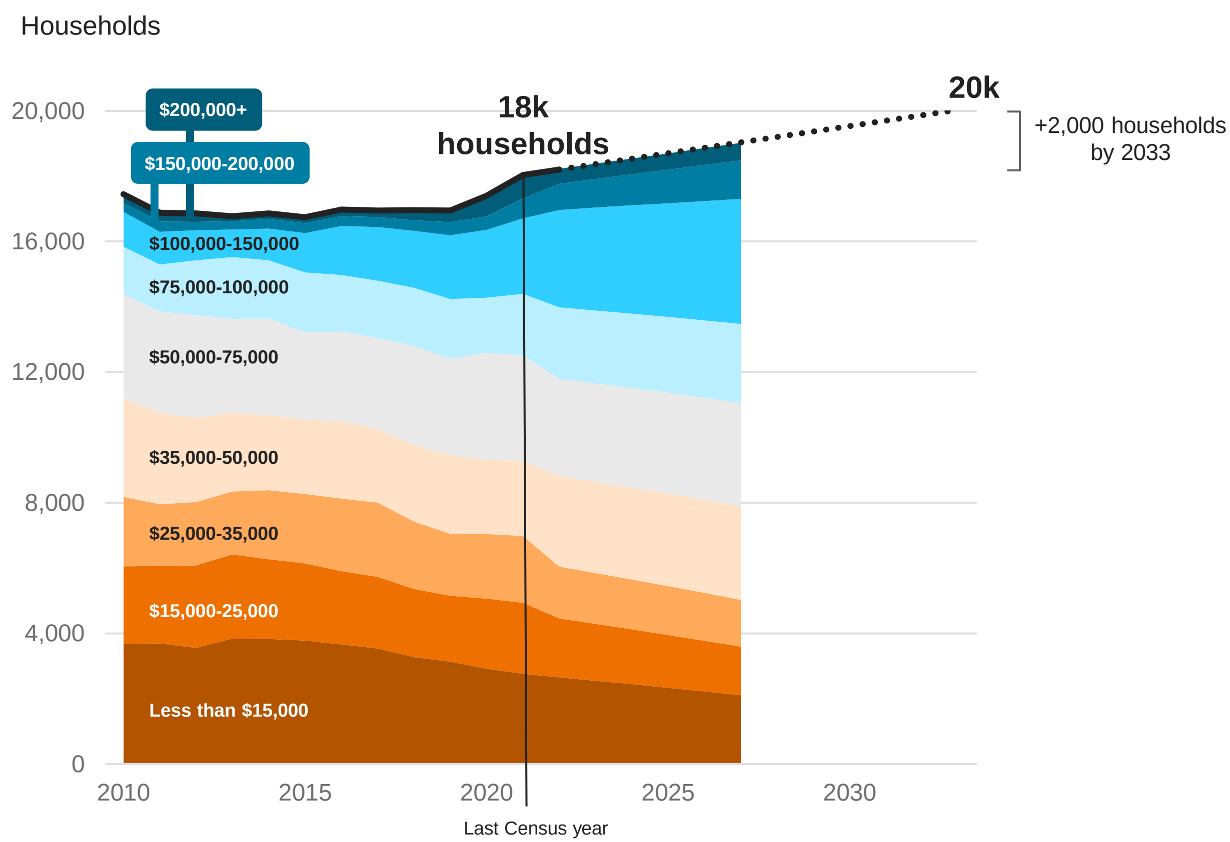
This graph tracks total household change over time by income to indicate overall trends as well as growth or reduction within individual income brackets.

These income brackets correspond to household income and housing unit cost levels on other charts in this section to help compare the current status with historical and future conditions.

Covington City is relatively stable and is expected to see slight growth.

Households, by income bracket

Source: ACS, ESRI, Woods & Poole



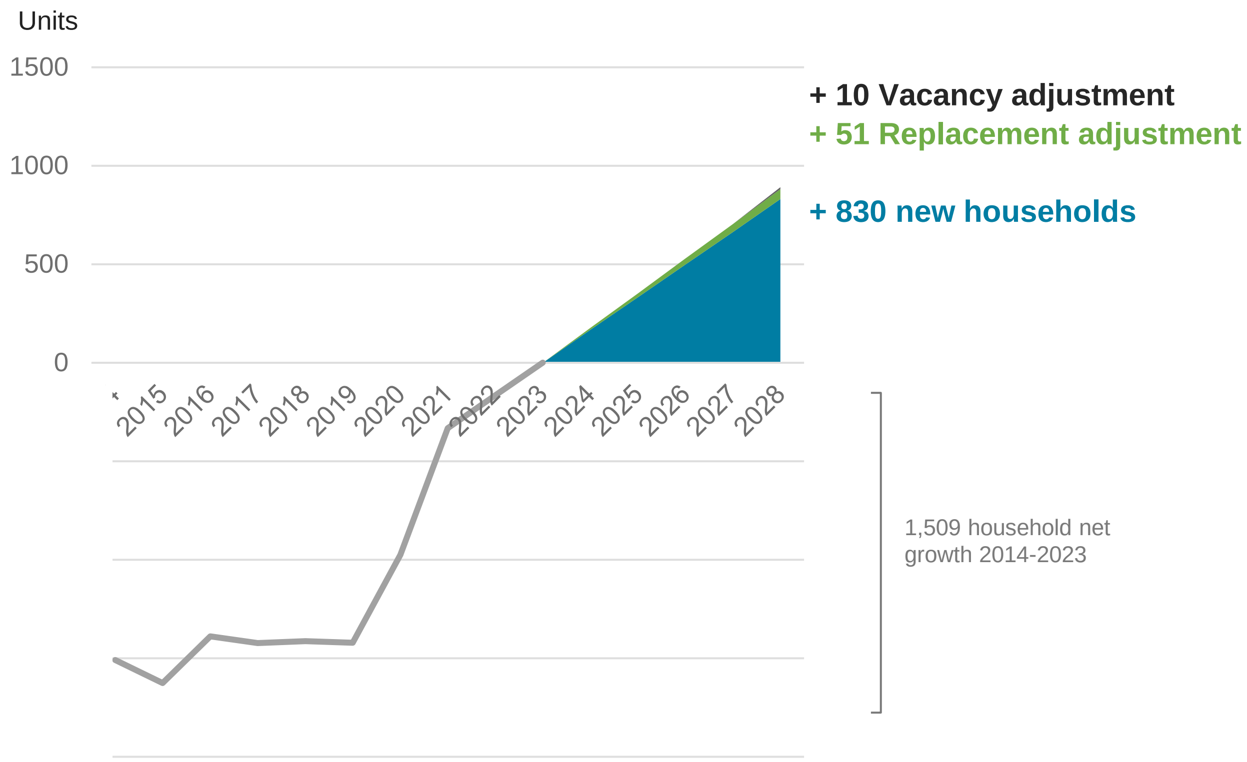
Production needs

This forecast indicates the housing production necessary over the next 5 years to accommodate projected new households while also incorporating other market dynamics such as organic unit replacement and vacancy fluctuations.

The totals at right combine to represent the number of new units required to meet demand driven by these new households.

2028 Housing production need forecast: **891 units**

Source: ACS, ESRI, Woods & Poole



Five-year production need

This step in the analysis translates the production need forecast into a distribution of needed housing units in terms of cost, tenure (rent/own), and bedroom count.

Larger numbers indicate unit types (cost/tenure/size) that should be developed at higher volumes to meet expected household growth.

Smaller numbers indicate unit types less urgently in need based on projected household growth.

The table is annotated with the approximate % AMI levels associated with each monthly cost bracket to help indicate which batches of units might require subsidy or other support to deliver. In general, housing that is affordable to households at or above 120% AMI is considered feasible to develop without subsidy.

5-year production need: new units by tenure, size, and monthly cost to accommodate the forecasted household growth and any replacement and vacancy adjustment

Maximum monthly housing cost	Rent 1BR	Rent 2BR	Rent 3BR	Rent 4BR+	Own 1BR	Own 2BR	Own 3BR	Own 4BR+	
$313	35	32	14	4	2	4	6	2	
$521	22	23	11	2	1	3	5	2	
$729	20	22	10	2	1	3	6	2	
$1,042	34	40	21	5	2	8	18	6	<60% AMI
$1,563	31	39	23	6	2	10	27	11	
$2,083	16	24	17	5	1	7	28	16	
$3,125	16	29	25	9	1	10	47	40	60-80% AMI
$4,167	3	7	6	2	0	3	15	19	80-120% AMI
More than $4,167	1	2	2	1	0	1	6	10	>120% AMI

Notes:

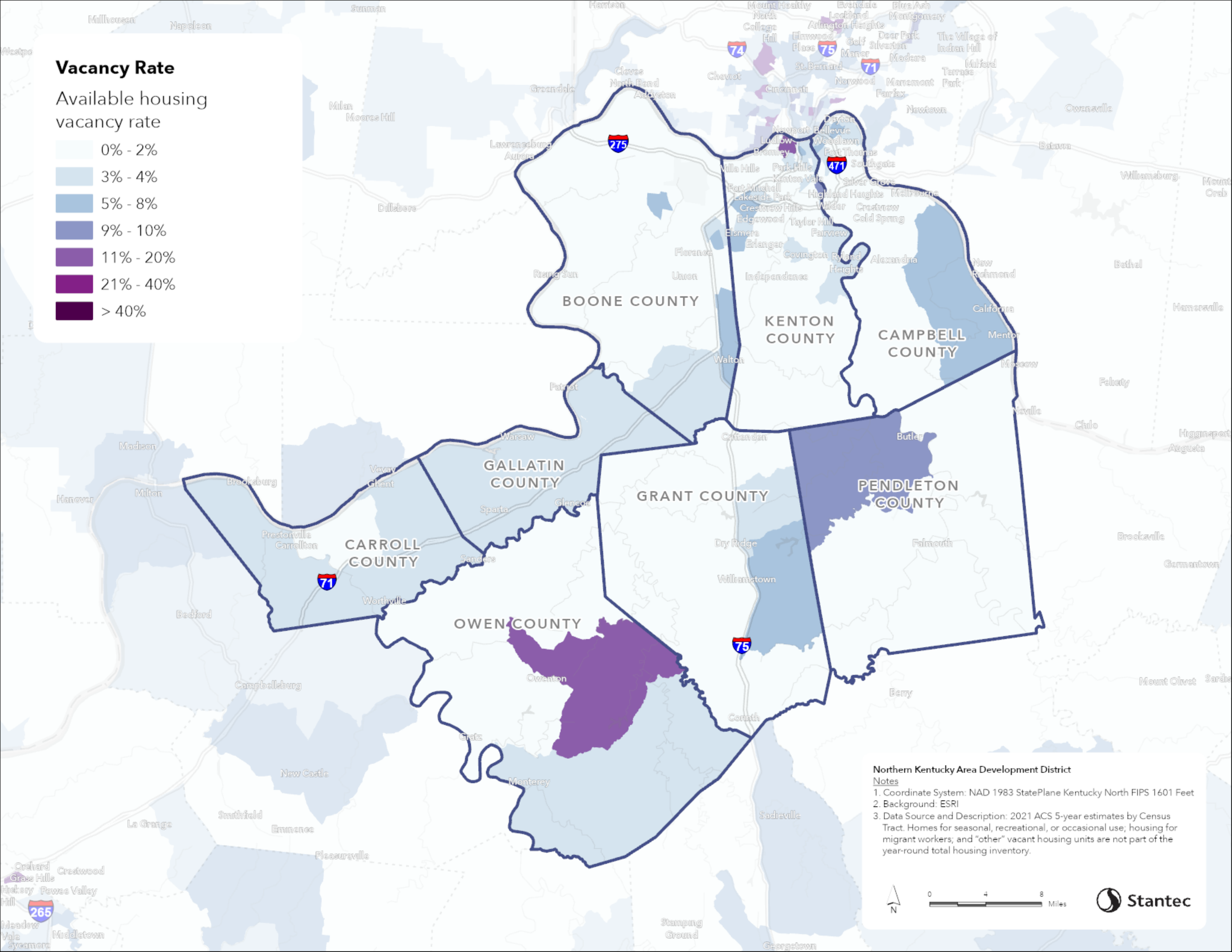
- *Darker purples indicate proportionally higher production volumes needed.*
- *Lighter purples and white indicate proportionally lower production volumes needed.*
- *Kenton County's Area Median Income (AMI) = $103,600*

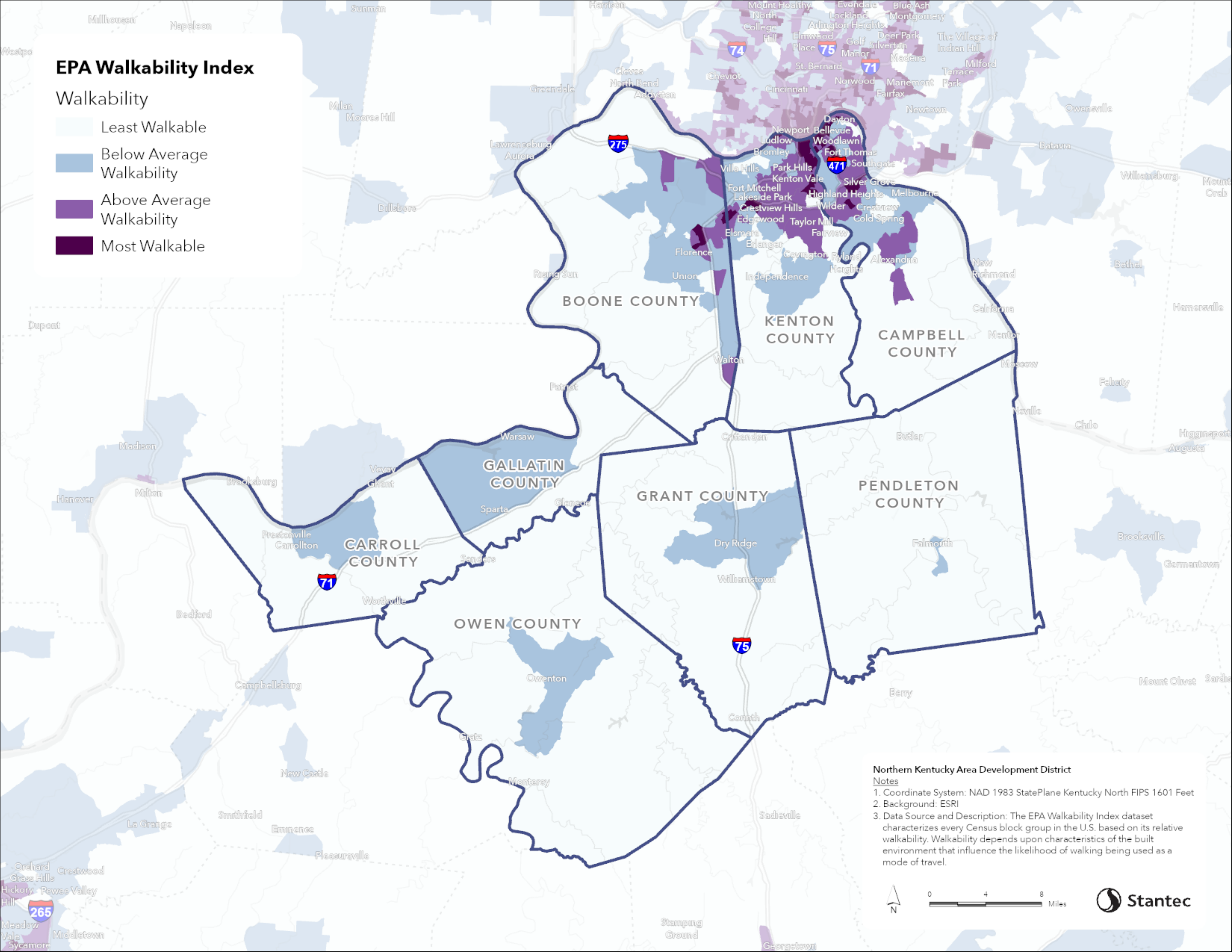
Regional Mapping

Employment, connectivity, affordability,
vulnerability, development history

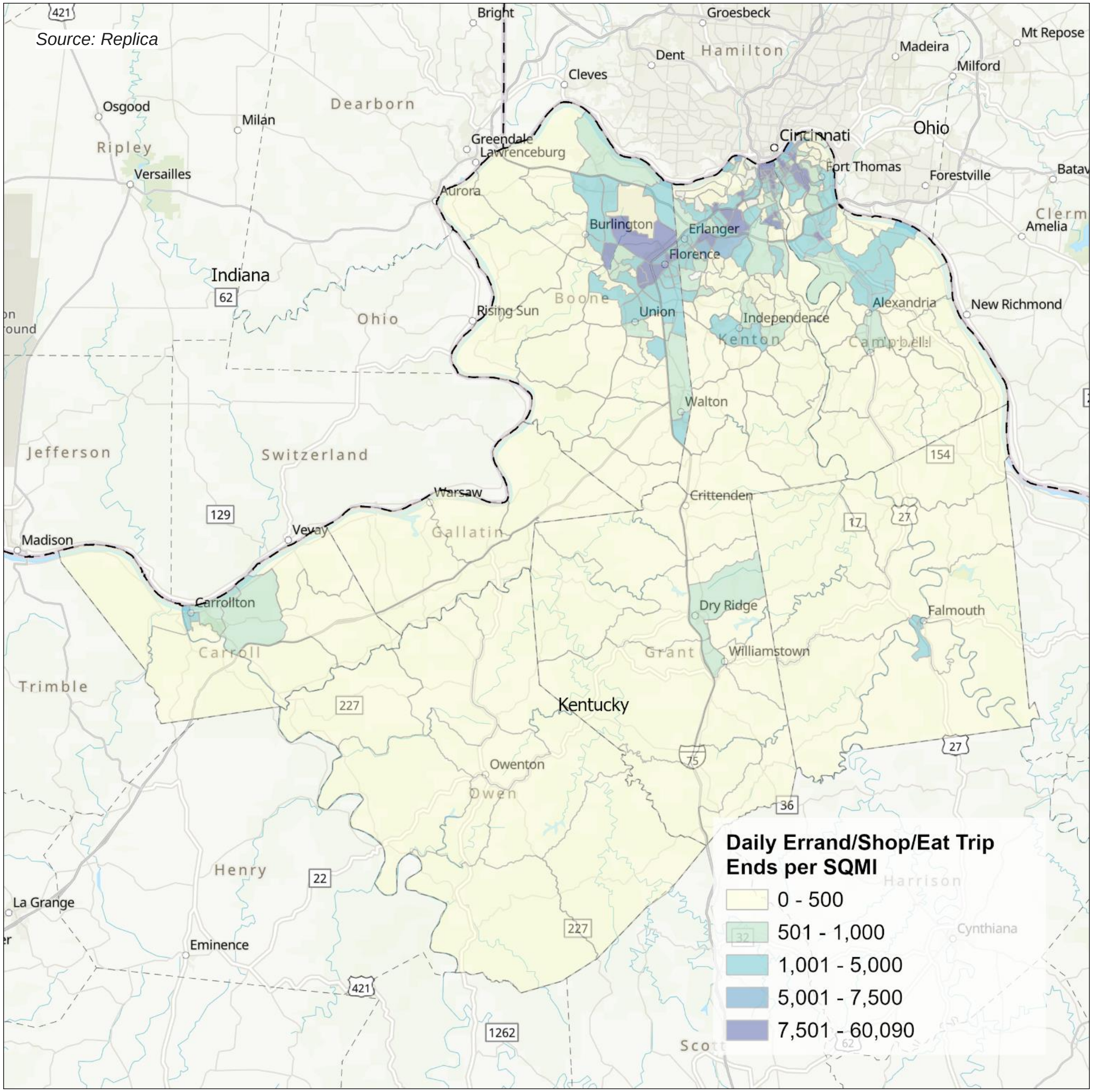
Employment, housing, and connectivity maps

- Employment
- Housing density
- Vacancy rates
- Walkability
- Cost-burdened owners and renters
- Affordability for low income

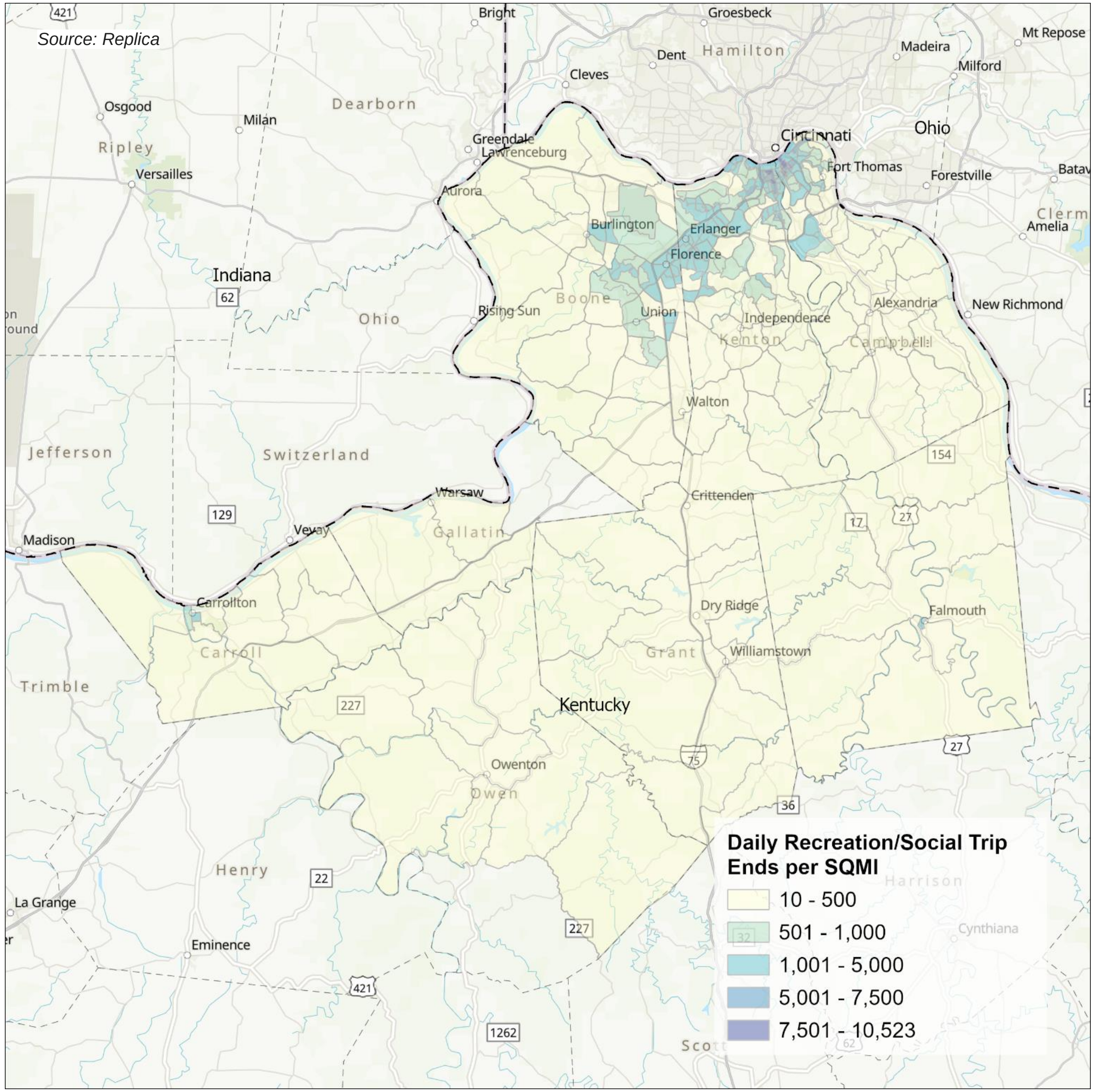

Vacancy Rate
Available housing vacancy rate
0% - 2%
3% - 4%
5% - 8%
9% - 10%
11% - 20%
21% - 40%
> 40%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. Homes for seasonal, recreational, or occasional use; housing for migrant workers; and "other" vacant housing units are not part of the year-round total housing inventory.
N
0
4
8
Miles
Stantec


EPA Walkability Index
Walkability
Least Walkable
Below Average Walkability
Above Average Walkability
Most Walkable
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Newport
Bellevue
Dayton
Woodlawn
Ludlow
Bromley
Fort Thomas
Southgate
Villa Hills
Park Hills
Kenton Vale
Silver Grove
Fort Mitchell
Lakeside Park
Highland Heights
Melbourne
Crestview Hills
Wilder
Crestview
Edgewood
Taylor Mill
Cold Spring
Elsmere
Fairview
Erlanger
Florence
Covington
Ryland Heights
Alexandria
Union
Independence
Walton
Warsaw
Sparta
Dry Ridge
Owenton
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: The EPA Walkability Index dataset characterizes every Census block group in the U.S. based on its relative walkability. Walkability depends upon characteristics of the built environment that influence the likelihood of walking being used as a mode of travel.
N
0
4
8
Miles
Stantec

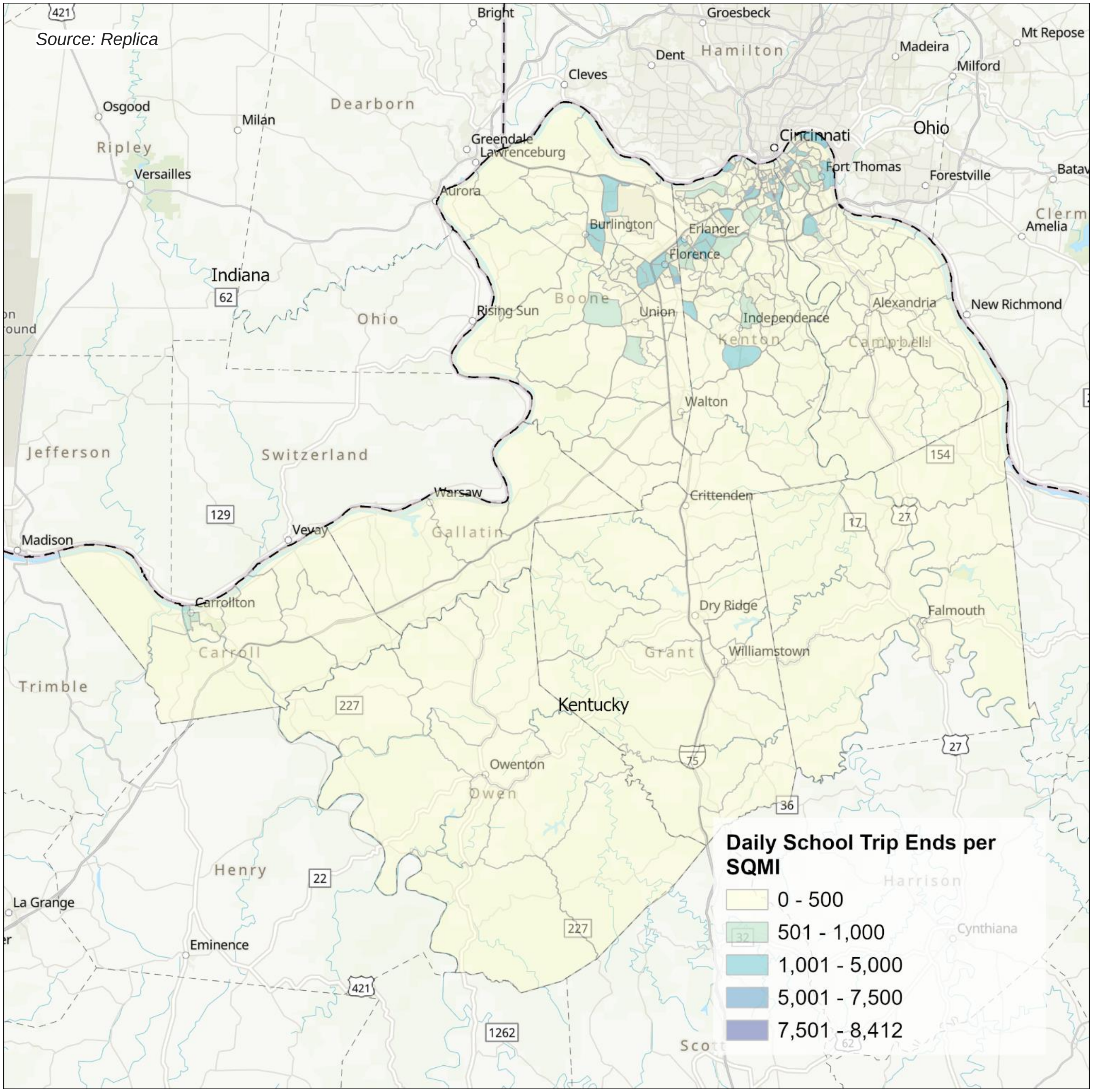
Trips ends for shopping and errands



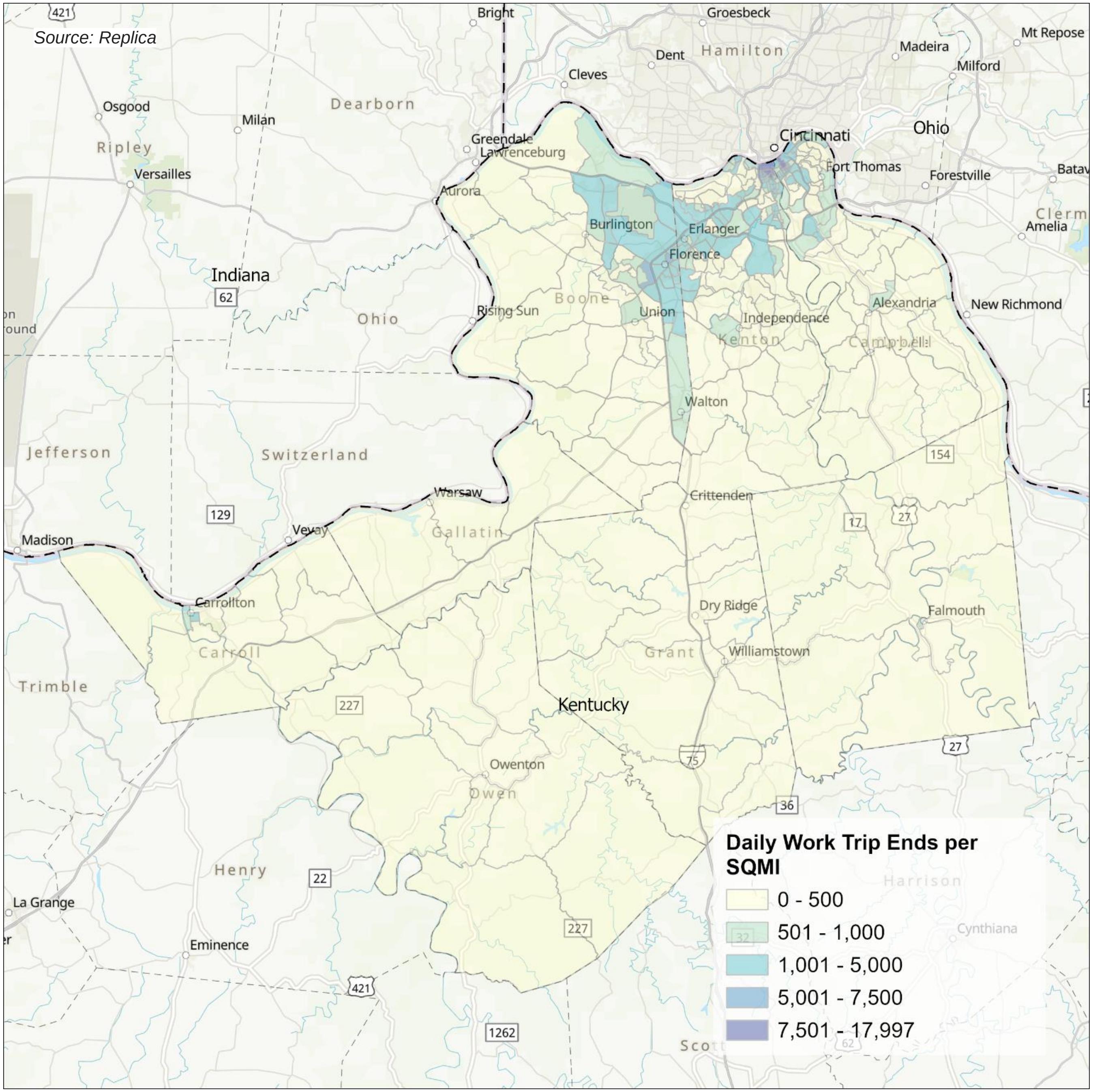
Trips ends for recreation and socialization



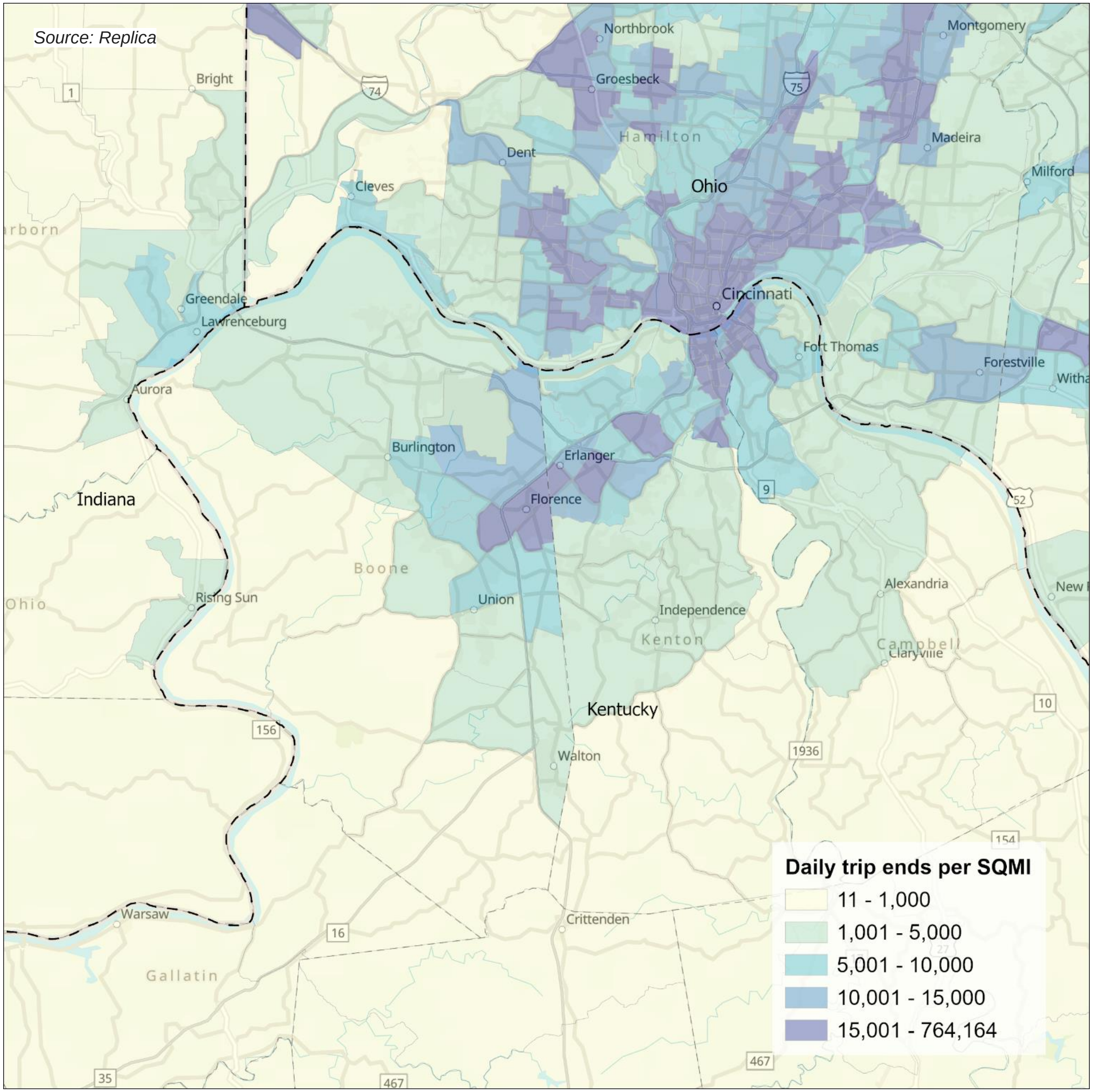
Trips ends for school



Trips ends for employment

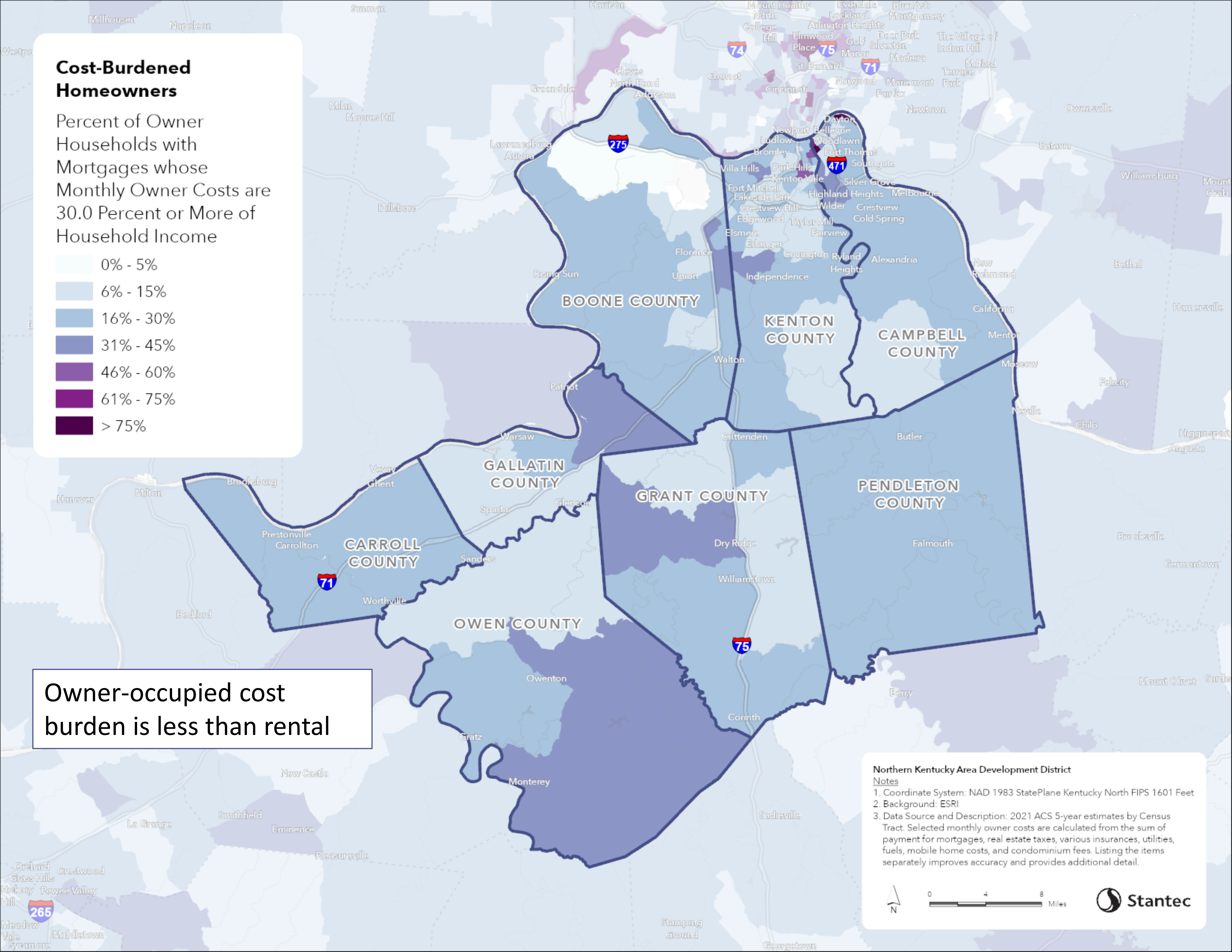


Zoom into urban areas

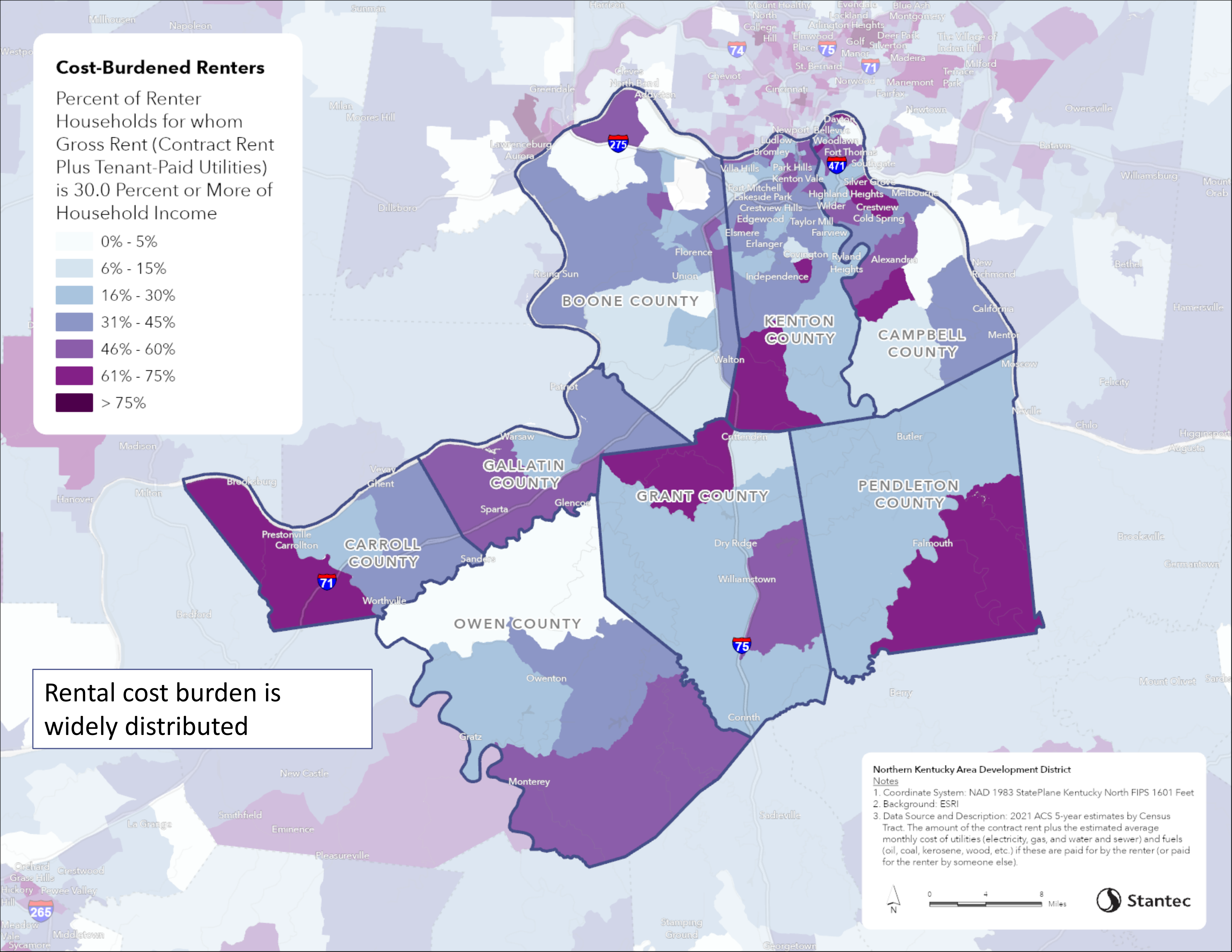


Affordability maps

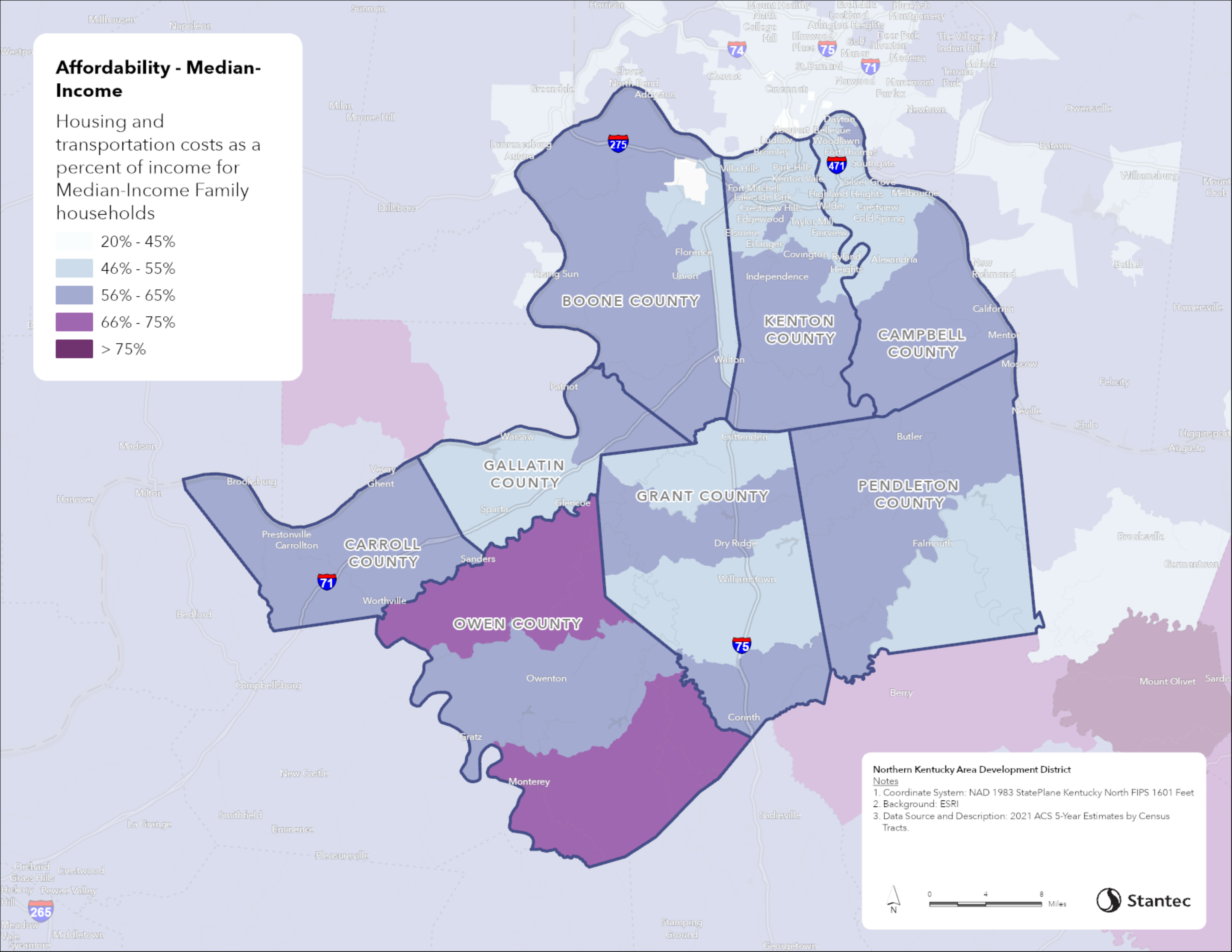
- Cost-burdened owners and renters
- Affordability for low income



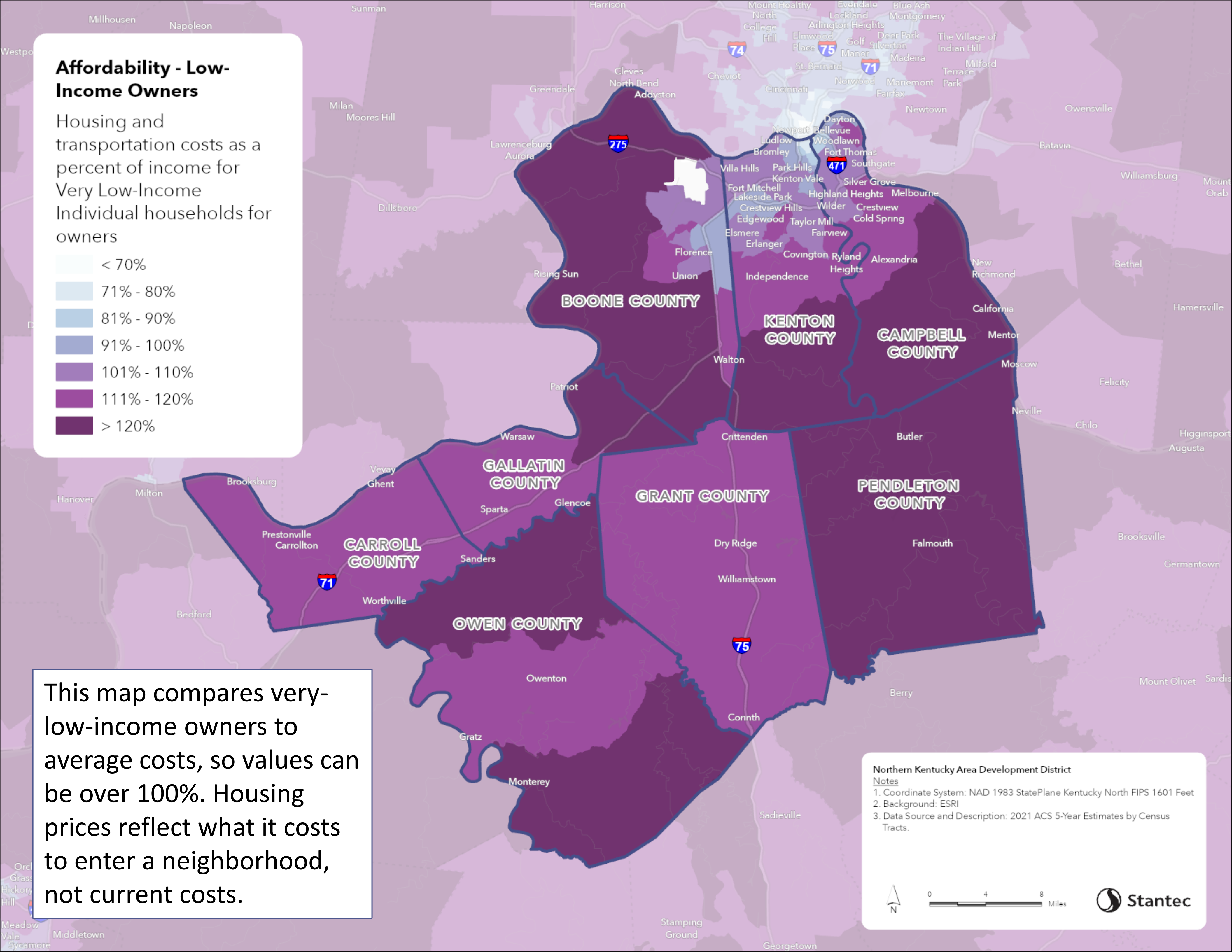
Owner-occupied cost burden is less than rental

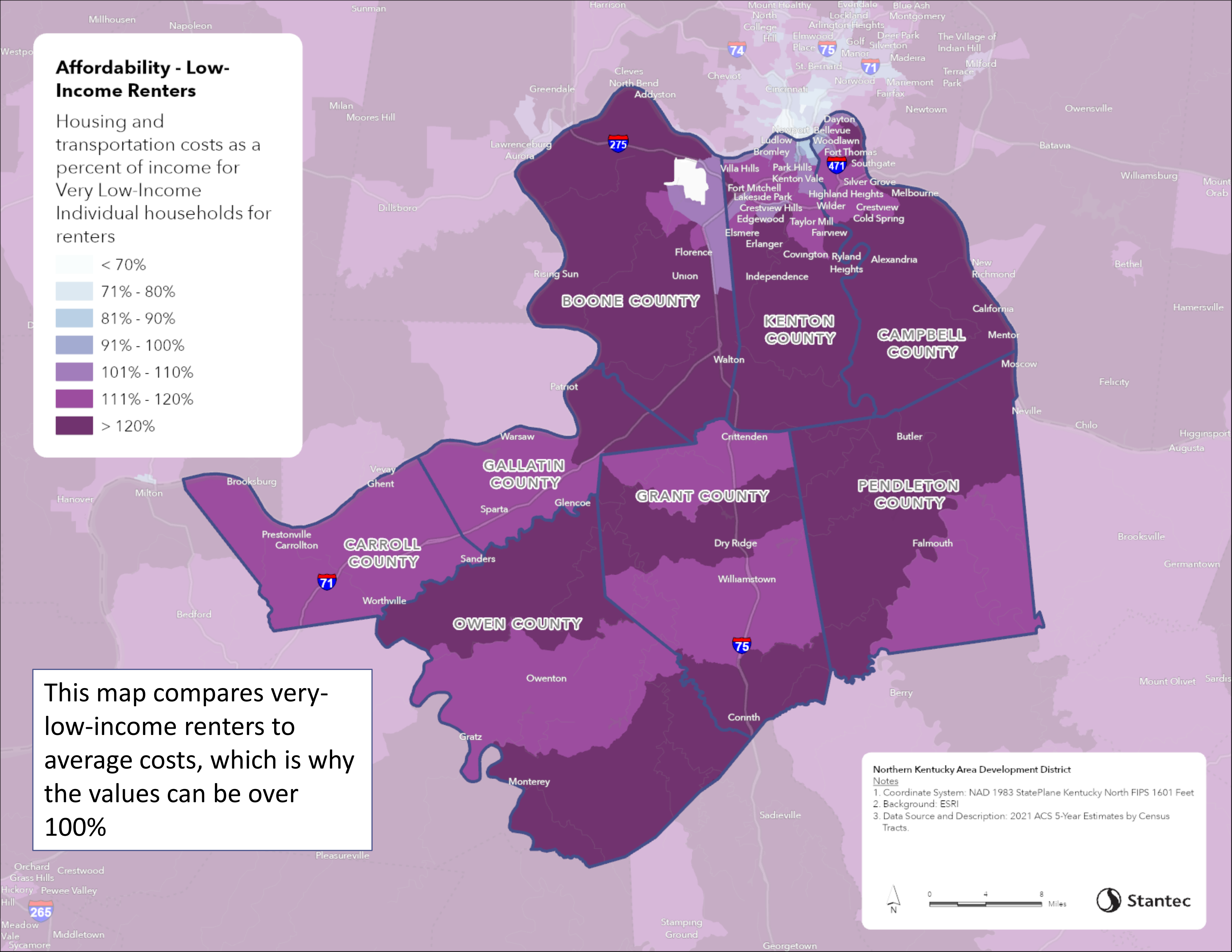


Cost-Burdened Renters
Percent of Renter Households for whom Gross Rent (Contract Rent Plus Tenant-Paid Utilities) is 30.0 Percent or More of Household Income
0% - 5%
6% - 15%
16% - 30%
31% - 45%
46% - 60%
61% - 75%
> 75%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Rental cost burden is widely distributed
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. The amount of the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid for by the renter (or paid for the renter by someone else).
N
0
4
8
Miles
Stantec



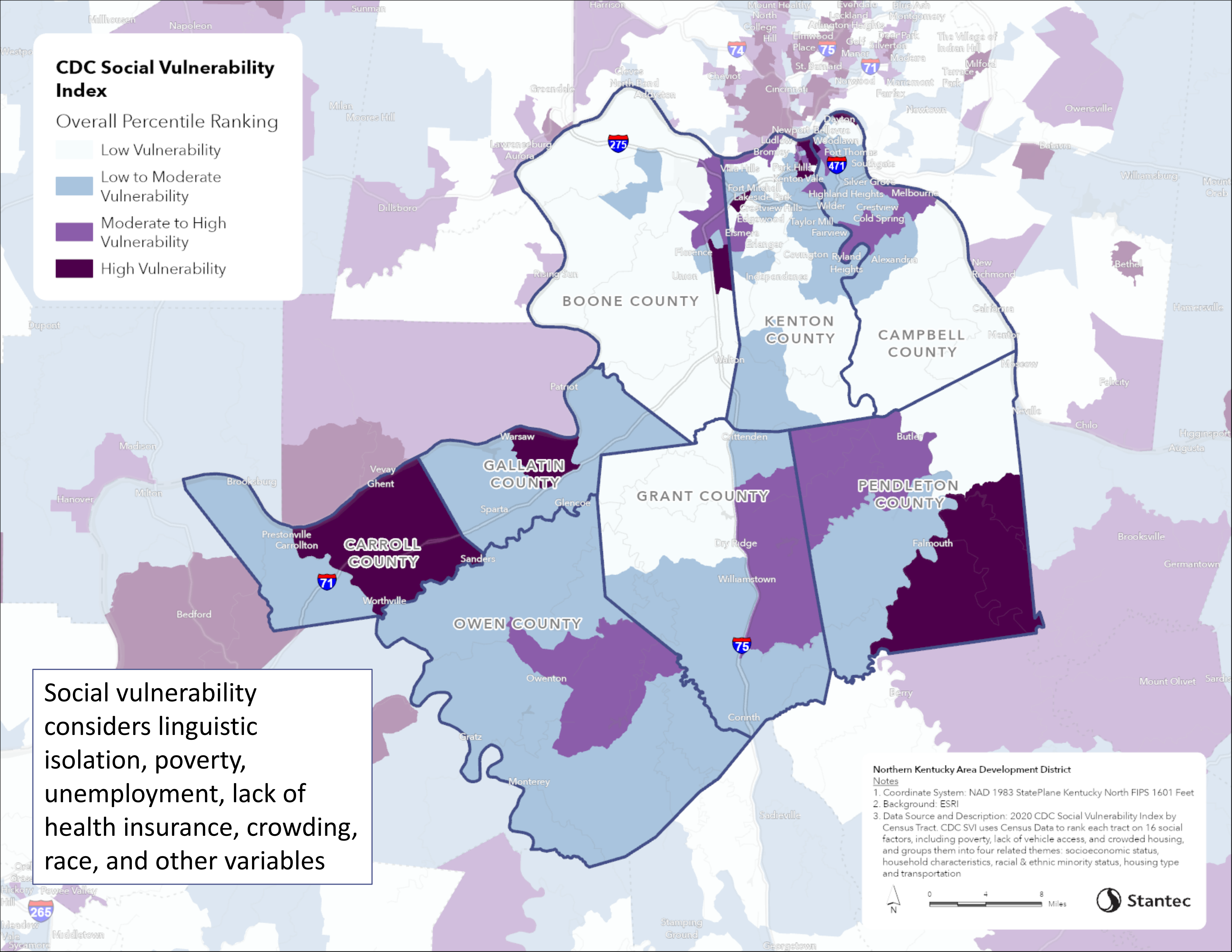
Affordability - Median-Income
Housing and transportation costs as a percent of income for Median-Income Family households
20% - 45%
46% - 55%
56% - 65%
66% - 75%
> 75%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Florence
Union
Independence
Covington
Erlanger
Elsmere
Edgewood
Alexandria
Cold Spring
Walton
California
Mentor
Moscow
Neville
Butler
Falmouth
Crittenden
Dry Ridge
Williamstown
Corinth
Warsaw
Sparta
Glencoe
Sanders
Ghent
Brooksburg
Prestonville
Carrollton
Worthville
Owenton
Gratz
Monterey
Berry
Patriot
Rising Sun
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-Year Estimates by Census Tracts.
0
4
8
Miles
N
Stantec

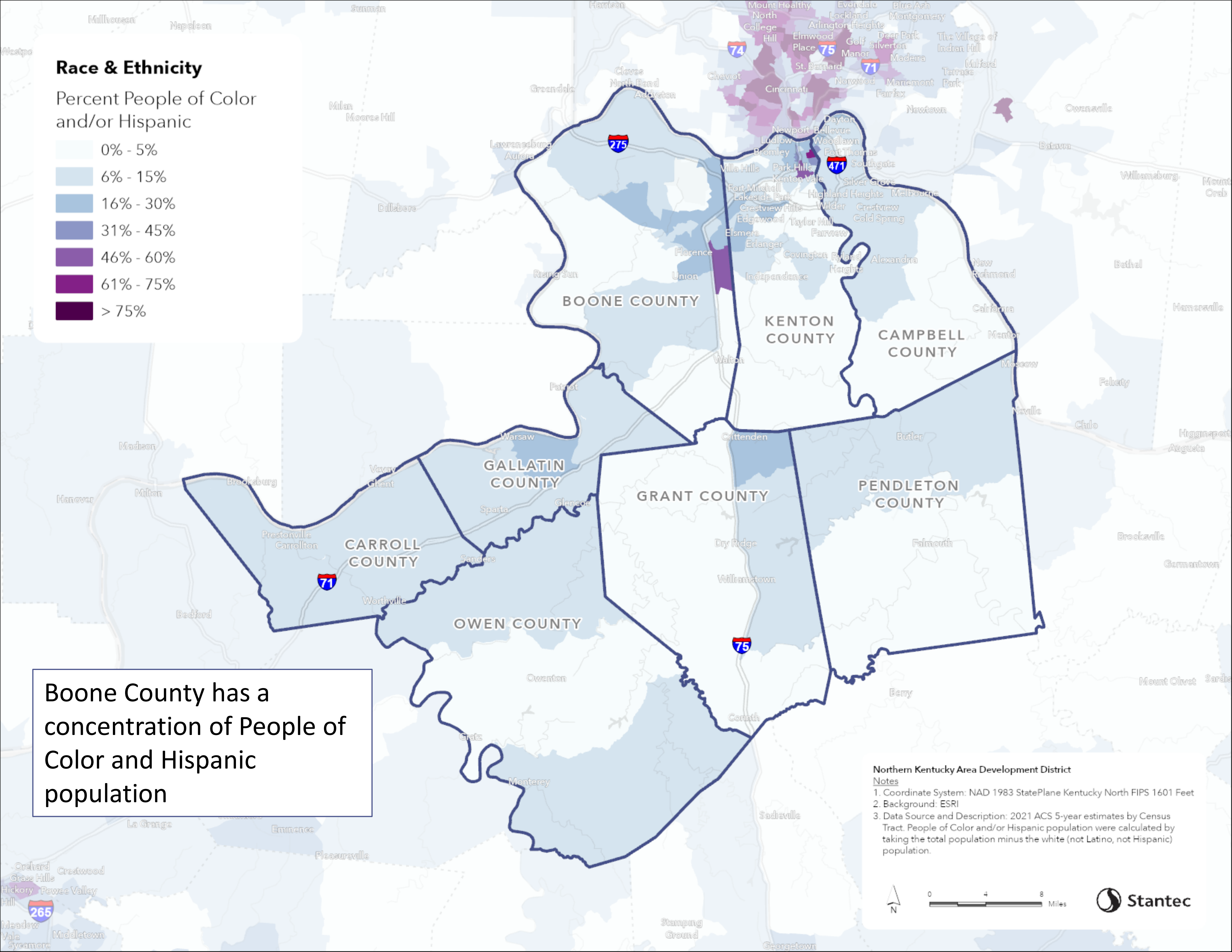

Affordability - Low-Income Owners
Housing and transportation costs as a percent of income for Very Low-Income Individual households for owners
< 70%
71% - 80%
81% - 90%
91% - 100%
101% - 110%
111% - 120%
> 120%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
This map compares very-low-income owners to average costs, so values can be over 100%. Housing prices reflect what it costs to enter a neighborhood, not current costs.
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-Year Estimates by Census Tracts.
0 4 8 Miles
Stantec


Affordability - Low-Income Renters
Housing and transportation costs as a percent of income for Very Low-Income Individual households for renters
< 70%
71% - 80%
81% - 90%
91% - 100%
101% - 110%
111% - 120%
> 120%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
This map compares very-low-income renters to average costs, which is why the values can be over 100%
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-Year Estimates by Census Tracts.
0 4 8 Miles
Stantec

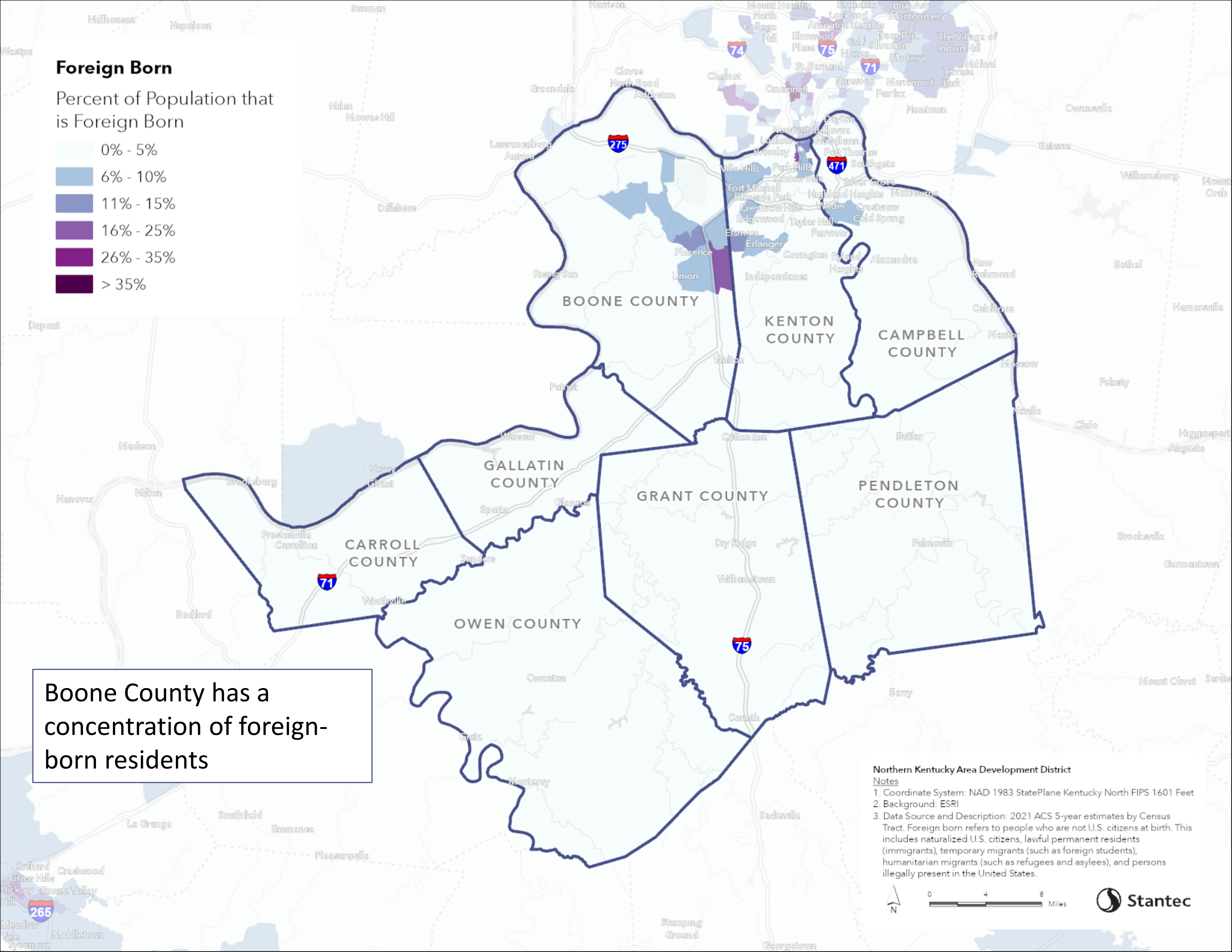
Social vulnerability maps

- CDC Vulnerability Index
- Race and ethnicity
- Foreign-born
- Linguistic isolation
- Poverty
- Unemployment
- Internet service
- No health insurance
- No vehicle

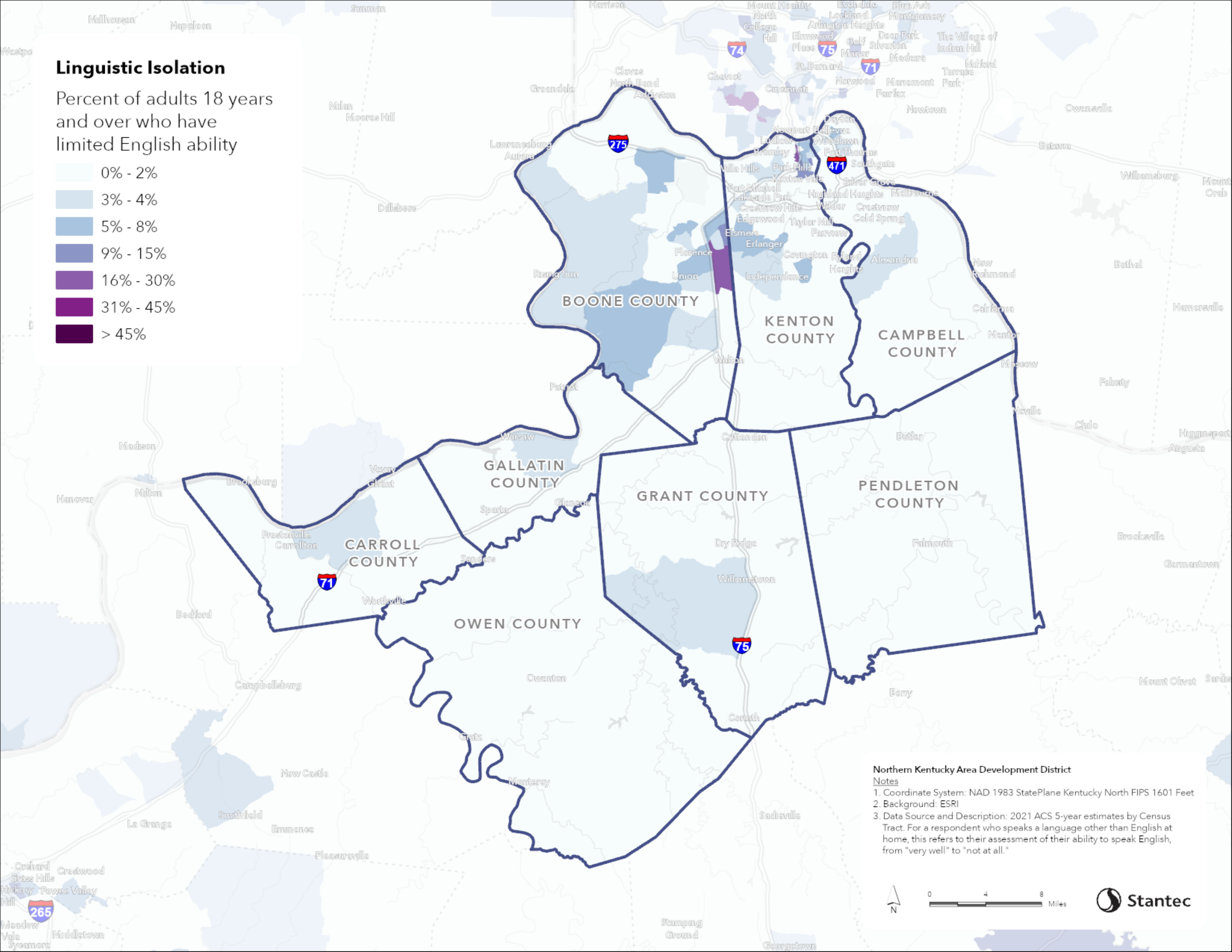

CDC Social Vulnerability Index
Overall Percentile Ranking
Low Vulnerability
Low to Moderate Vulnerability
Moderate to High Vulnerability
High Vulnerability
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
CARROLL COUNTY
GRANT COUNTY
PENDLETON COUNTY
OWEN COUNTY
Social vulnerability considers linguistic isolation, poverty, unemployment, lack of health insurance, crowding, race, and other variables
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2020 CDC Social Vulnerability Index by Census Tract. CDC SVI uses Census Data to rank each tract on 16 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes: socioeconomic status, household characteristics, racial & ethnic minority status, housing type and transportation
N
0 4 8 Miles
Stantec



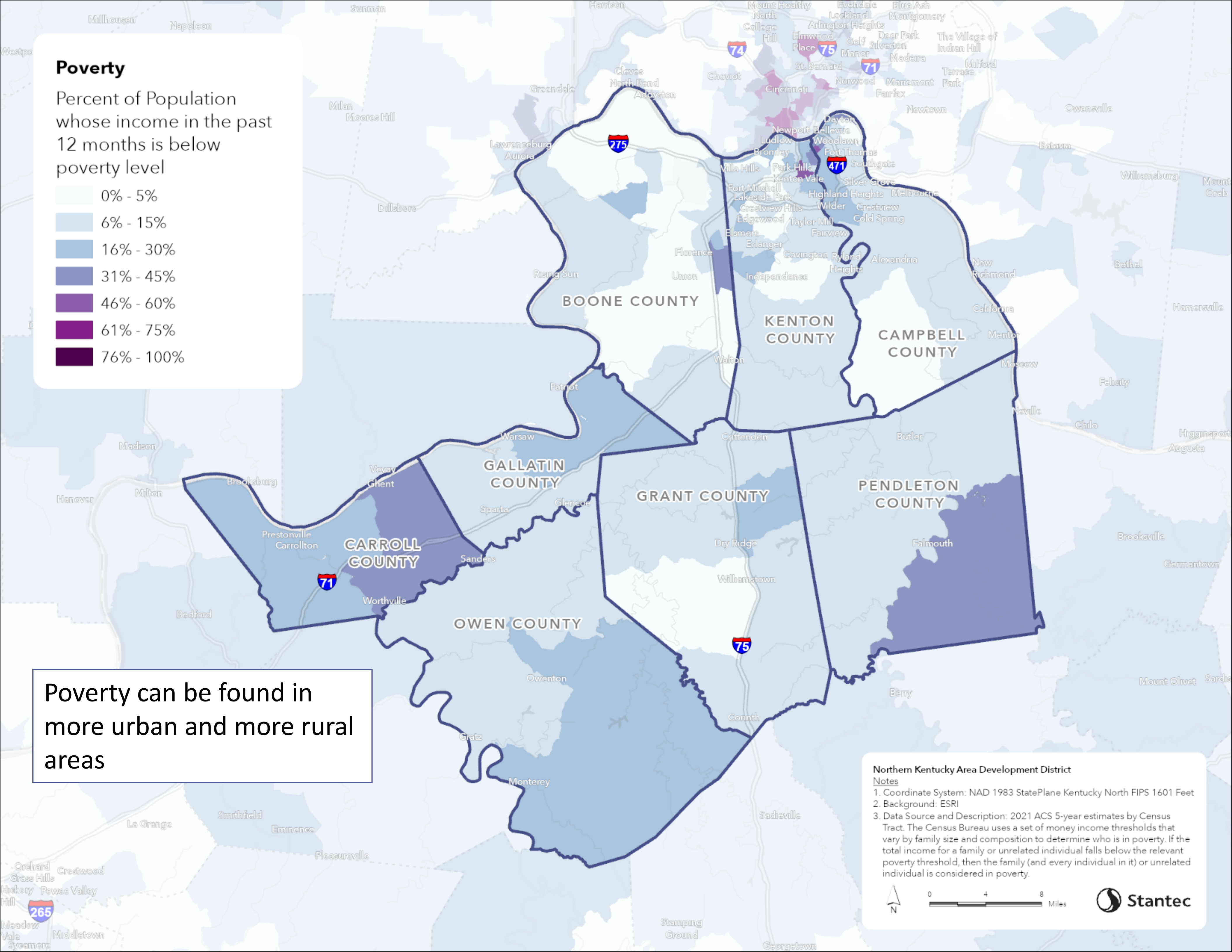
Boone County has a concentration of People of Color and Hispanic population



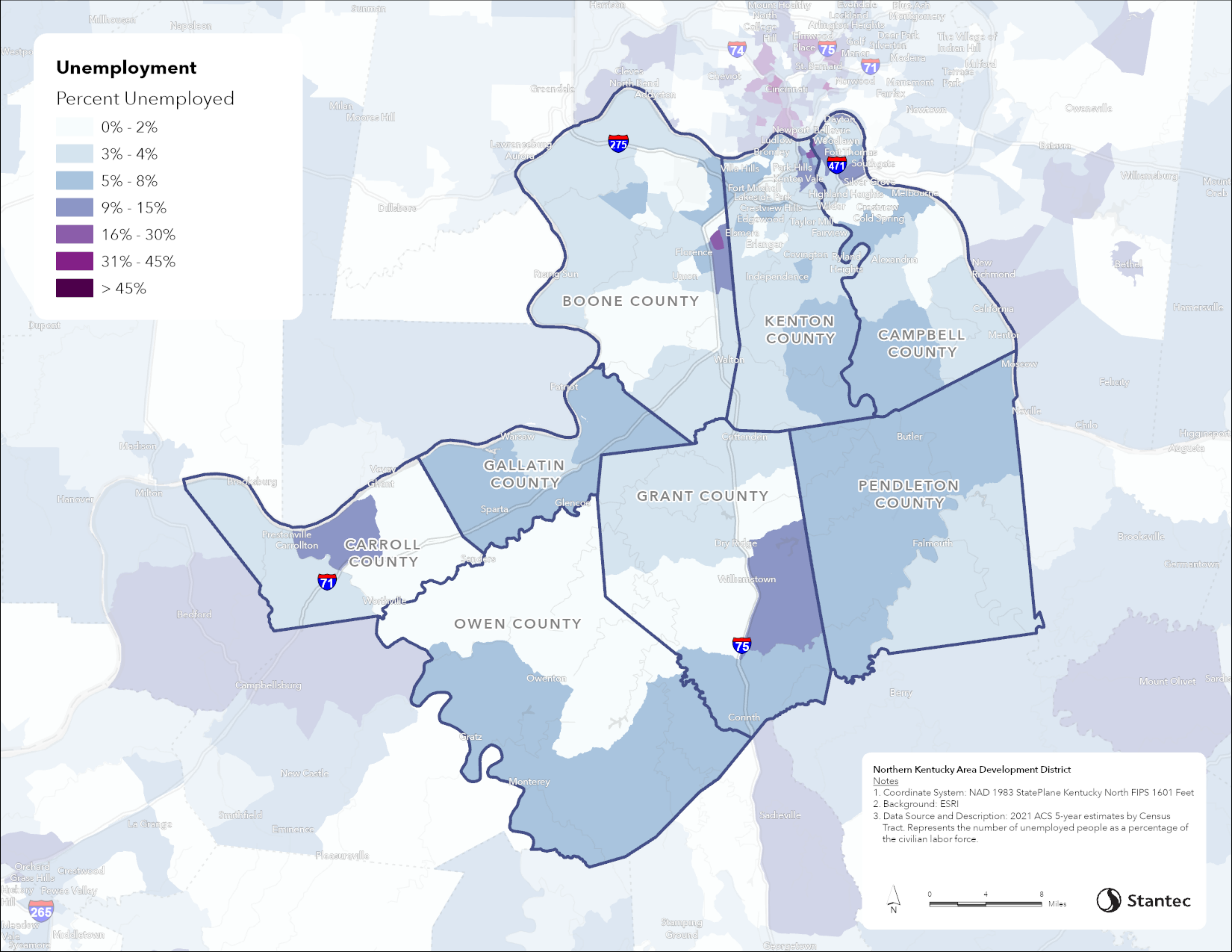
Foreign Born
Percent of Population that is Foreign Born
0% - 5%
6% - 10%
11% - 15%
16% - 25%
26% - 35%
> 35%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Boone County has a concentration of foreign-born residents
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. Foreign born refers to people who are not U.S. citizens at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as foreign students), humanitarian migrants (such as refugees and asylees), and persons illegally present in the United States.
N
0 4 8 Miles
Stantec



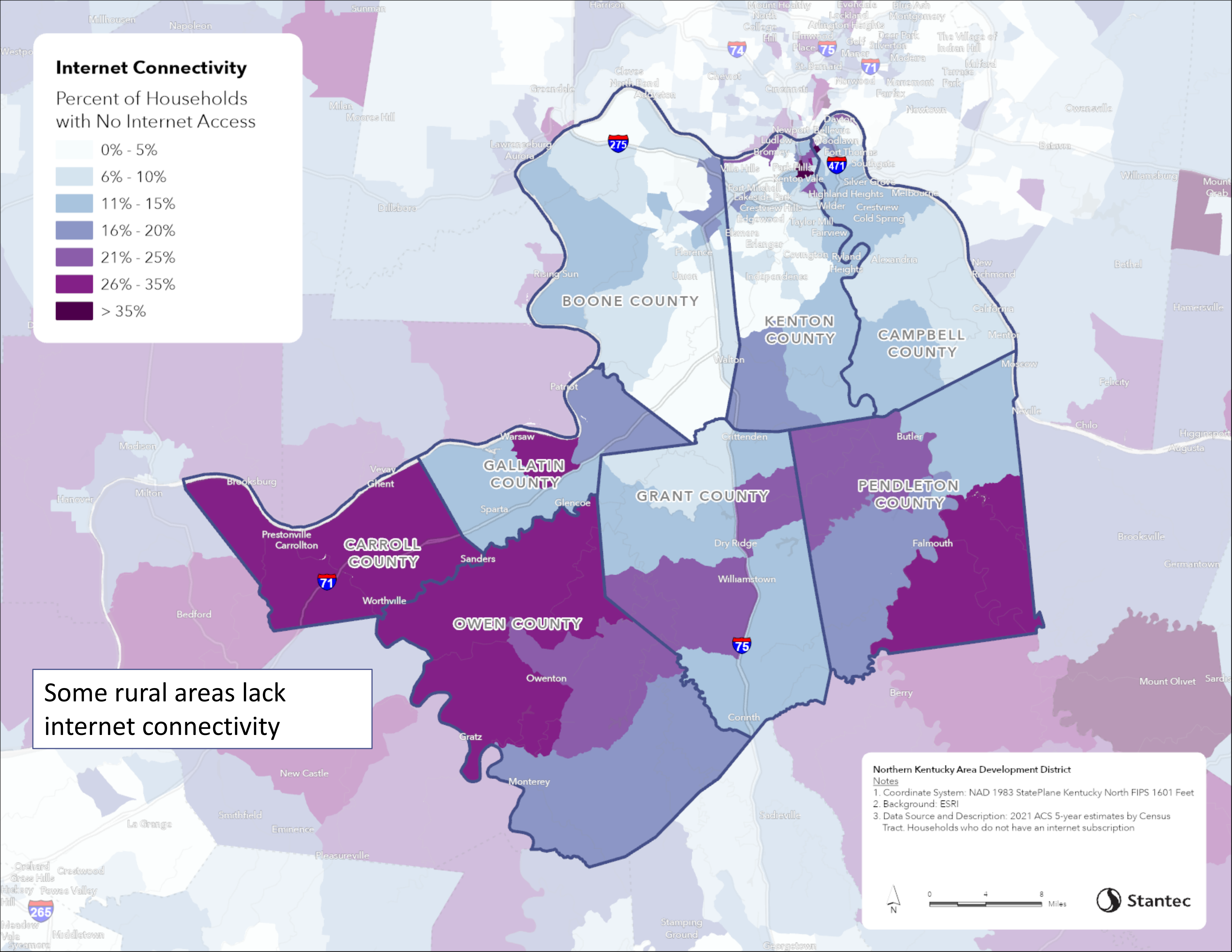
Linguistic Isolation
Percent of adults 18 years and over who have limited English ability
0% - 2%
3% - 4%
5% - 8%
9% - 15%
16% - 30%
31% - 45%
> 45%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
CARROLL COUNTY
GRANT COUNTY
PENDLETON COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. For a respondent who speaks a language other than English at home, this refers to their assessment of their ability to speak English, from "very well" to "not at all."
N
0
4
8
Miles
Stantec

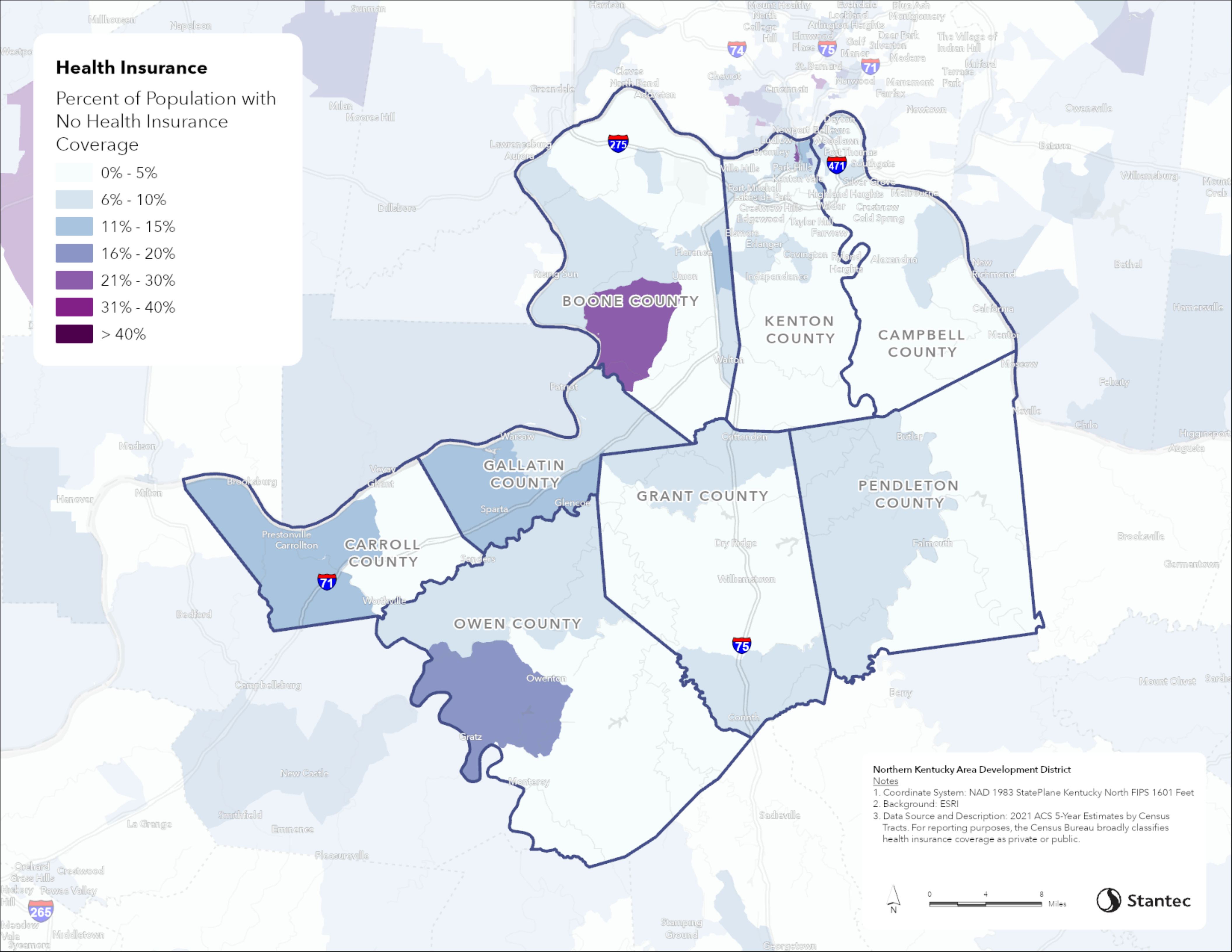


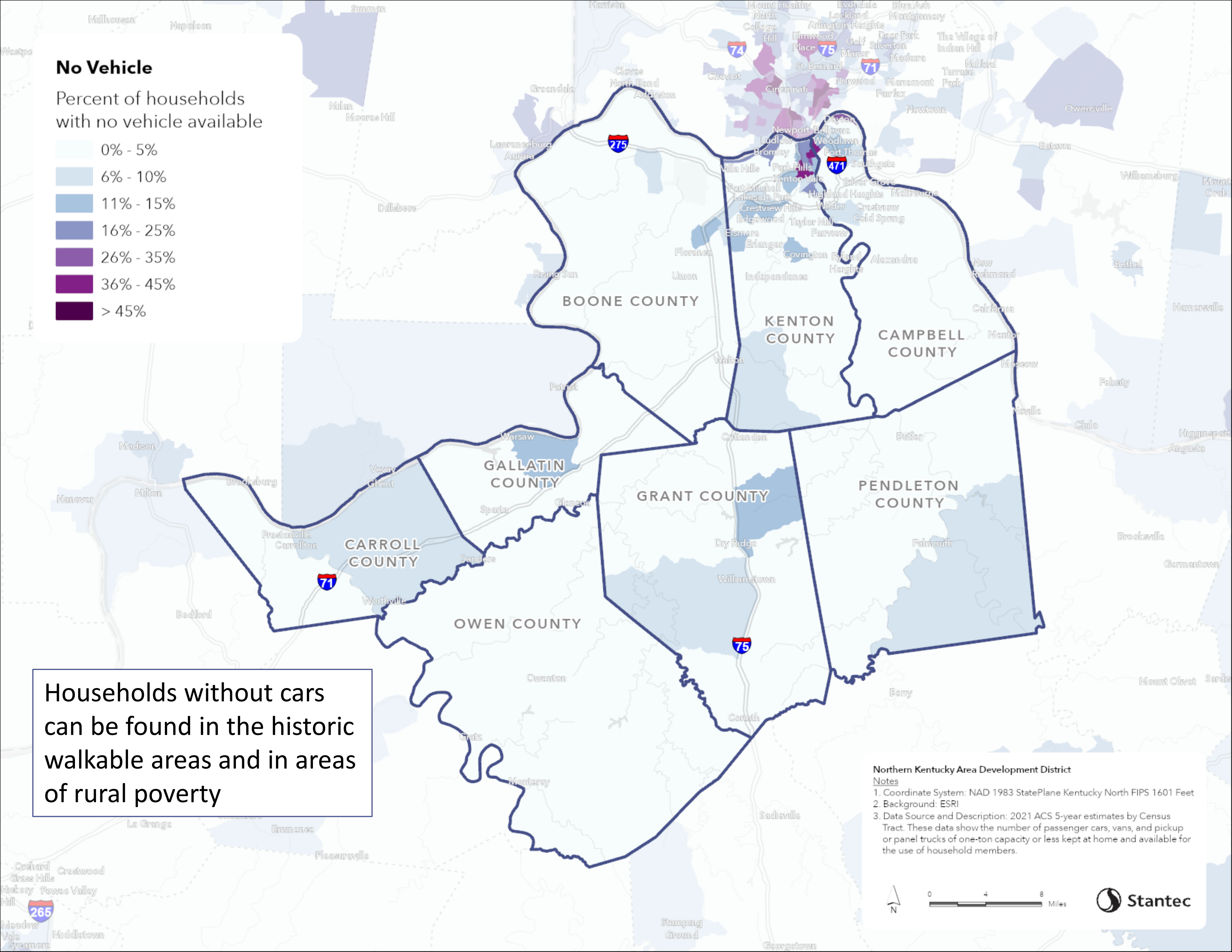
Poverty can be found in more urban and more rural areas



Unemployment
Percent Unemployed
0% - 2%
3% - 4%
5% - 8%
9% - 15%
16% - 30%
31% - 45%
> 45%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. Represents the number of unemployed people as a percentage of the civilian labor force.
N
0
4
8
Miles
Stantec


Internet Connectivity
Percent of Households with No Internet Access
0% - 5%
6% - 10%
11% - 15%
16% - 20%
21% - 25%
26% - 35%
> 35%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Warsaw
Butler
Crittenden
Walton
Sparta
Glencoe
Prestonville
Carrollton
Sanders
Worthville
Dry Ridge
Williamstown
Falmouth
Owenton
Gratz
Monterey
Corinth
Some rural areas lack internet connectivity
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-year estimates by Census Tract. Households who do not have an internet subscription
0
4
8
Miles
N
Stantec

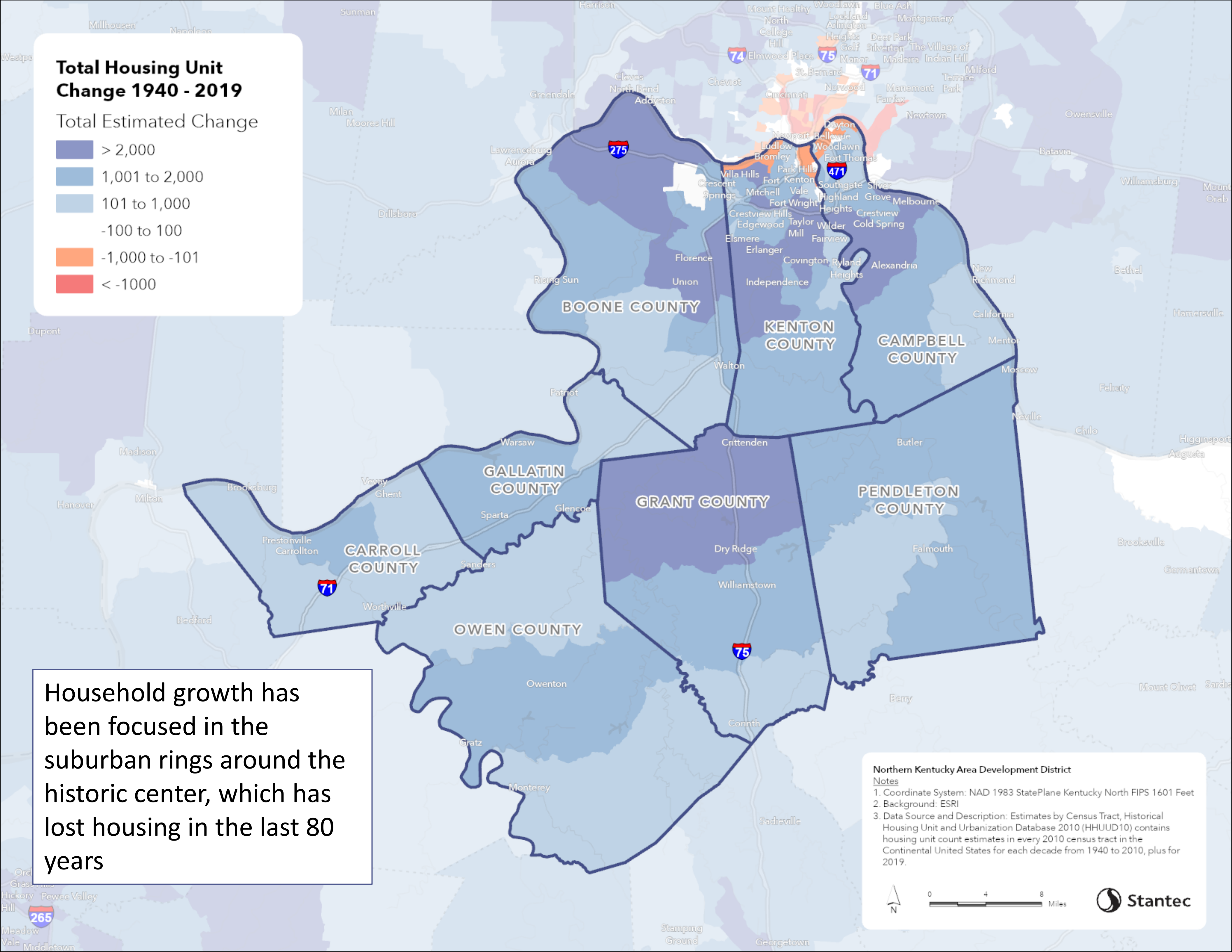

Health Insurance
Percent of Population with No Health Insurance Coverage
0% - 5%
6% - 10%
11% - 15%
16% - 20%
21% - 30%
31% - 40%
> 40%
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
CARROLL COUNTY
GRANT COUNTY
PENDLETON COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: 2021 ACS 5-Year Estimates by Census Tracts. For reporting purposes, the Census Bureau broadly classifies health insurance coverage as private or public.
N
0
4
8
Miles
Stantec



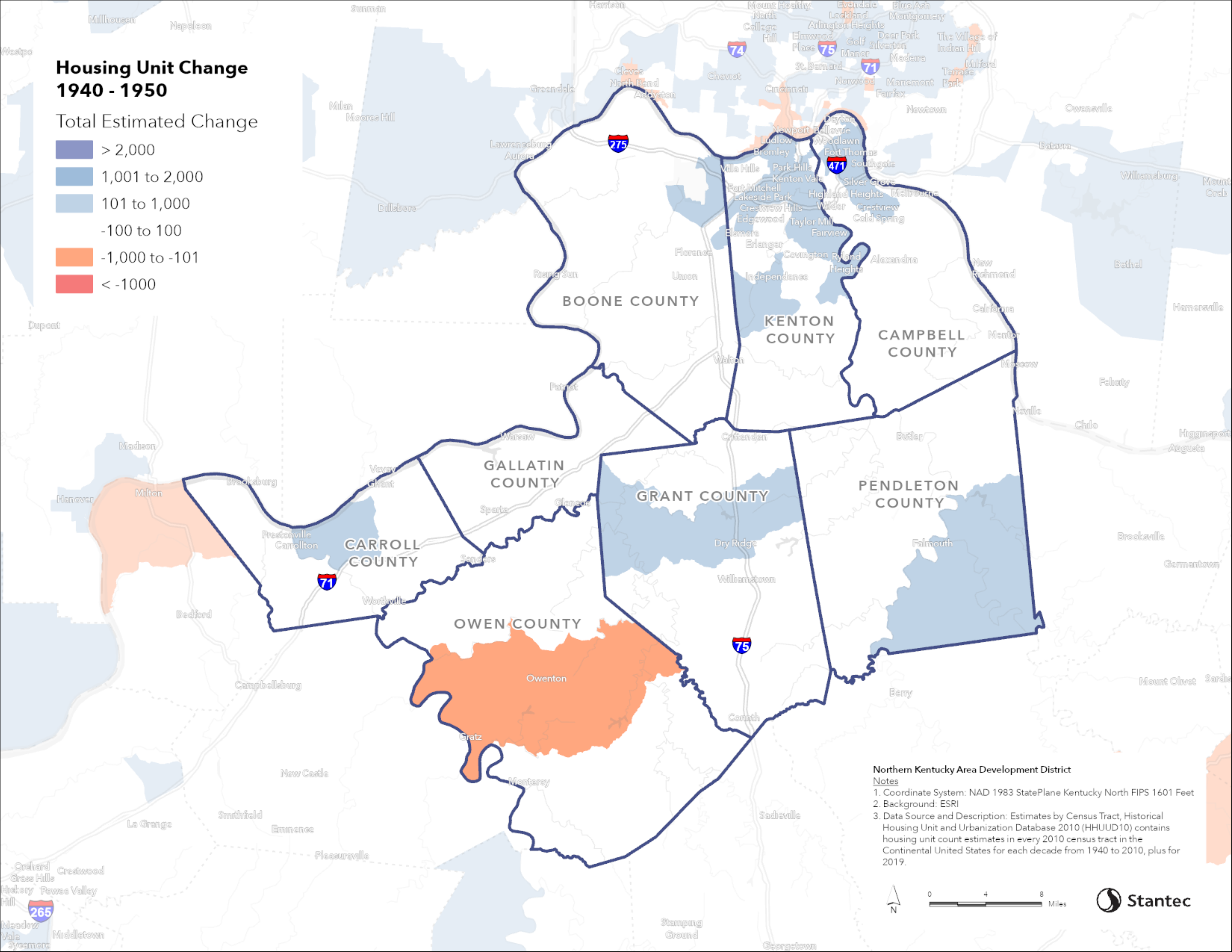
Households without cars can be found in the historic walkable areas and in areas of rural poverty

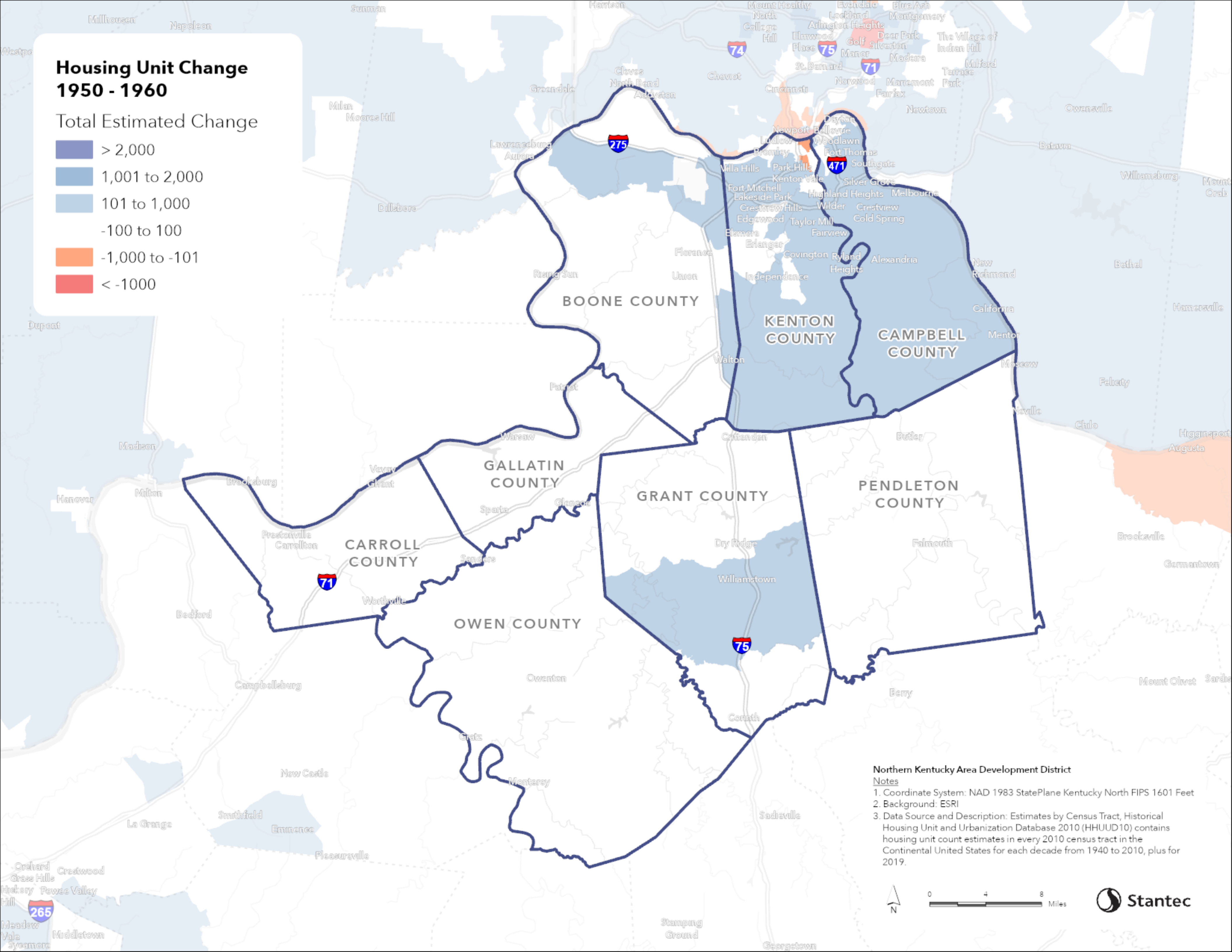
History of housing development and recently permitted housing

- Housing development per decade
- Recent housing permits by type

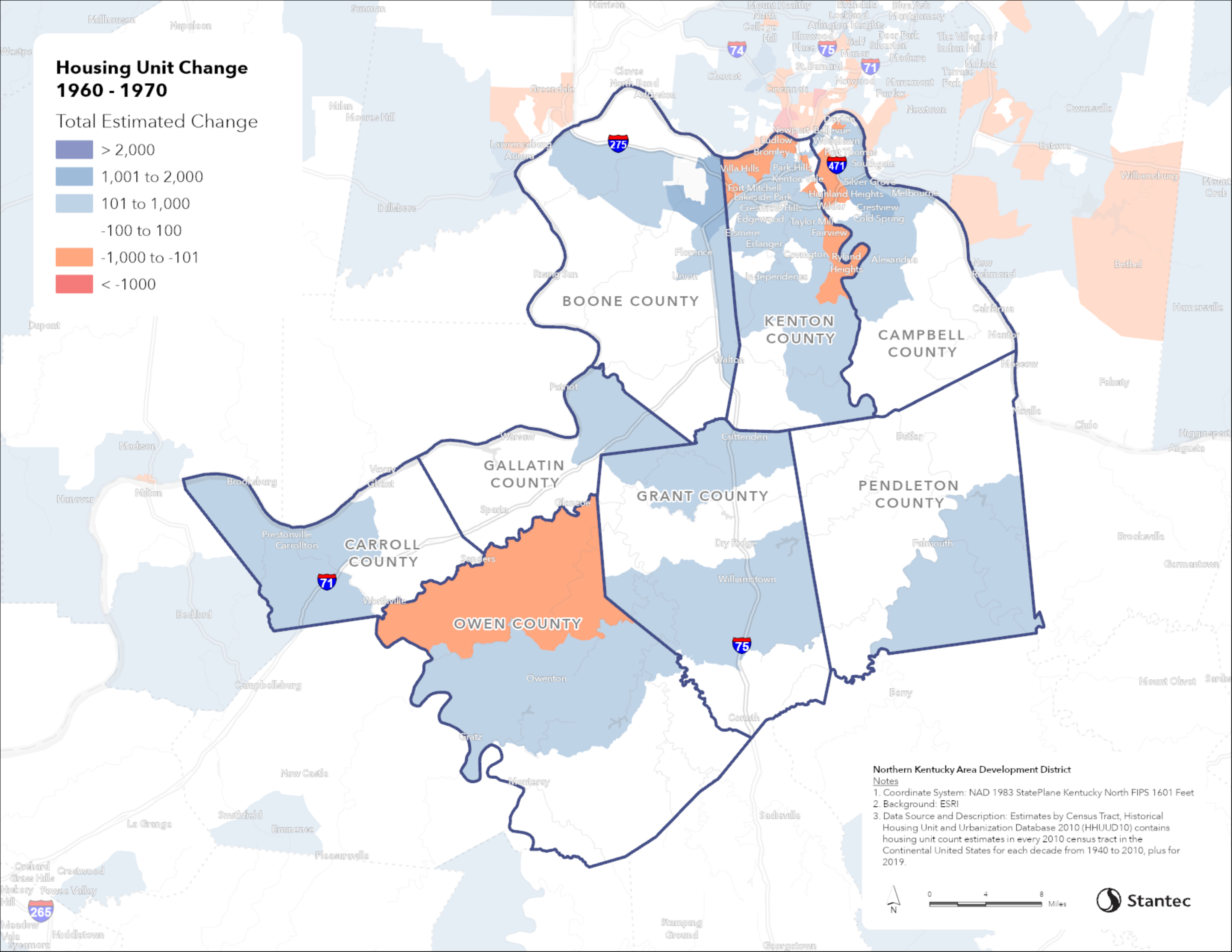


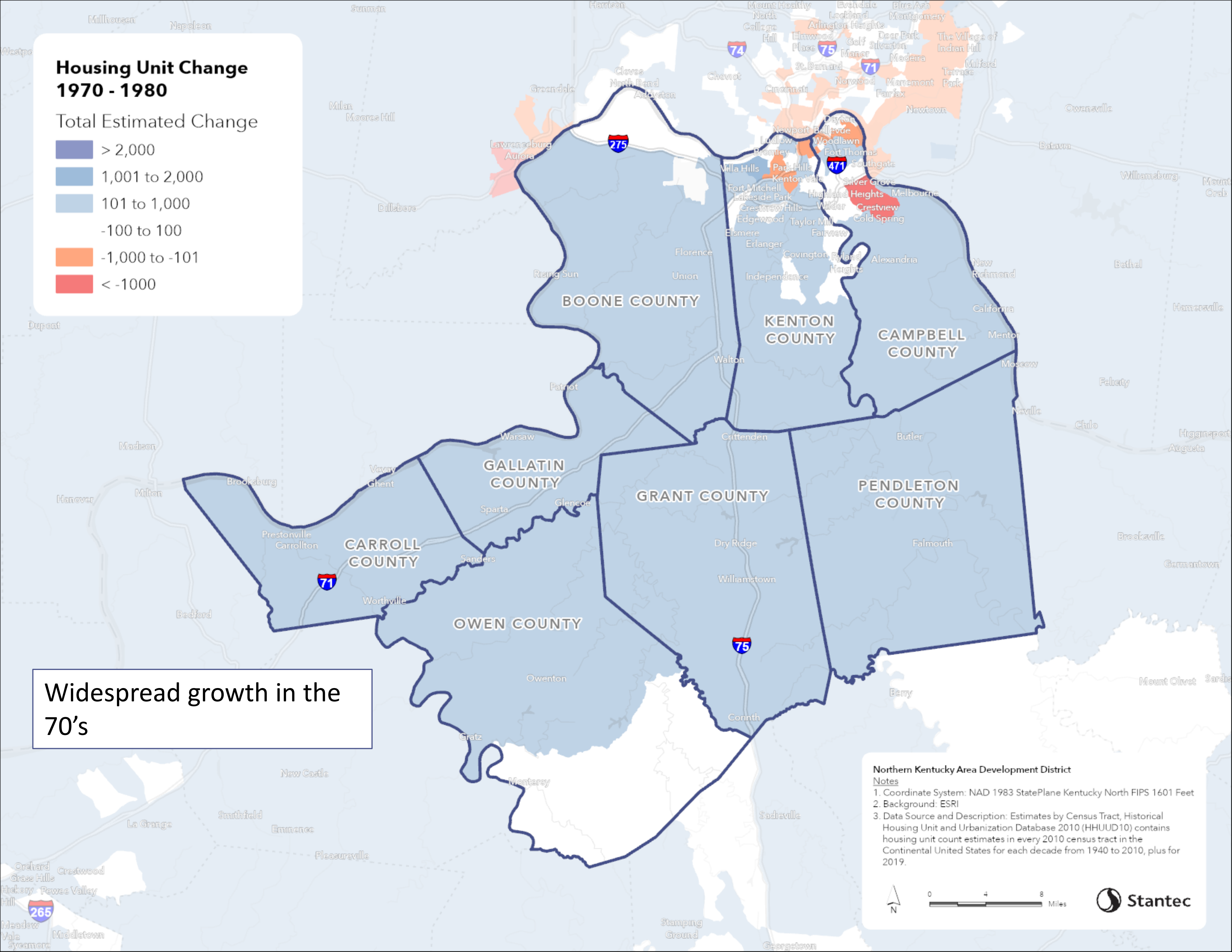
Household growth has been focused in the suburban rings around the historic center, which has lost housing in the last 80 years

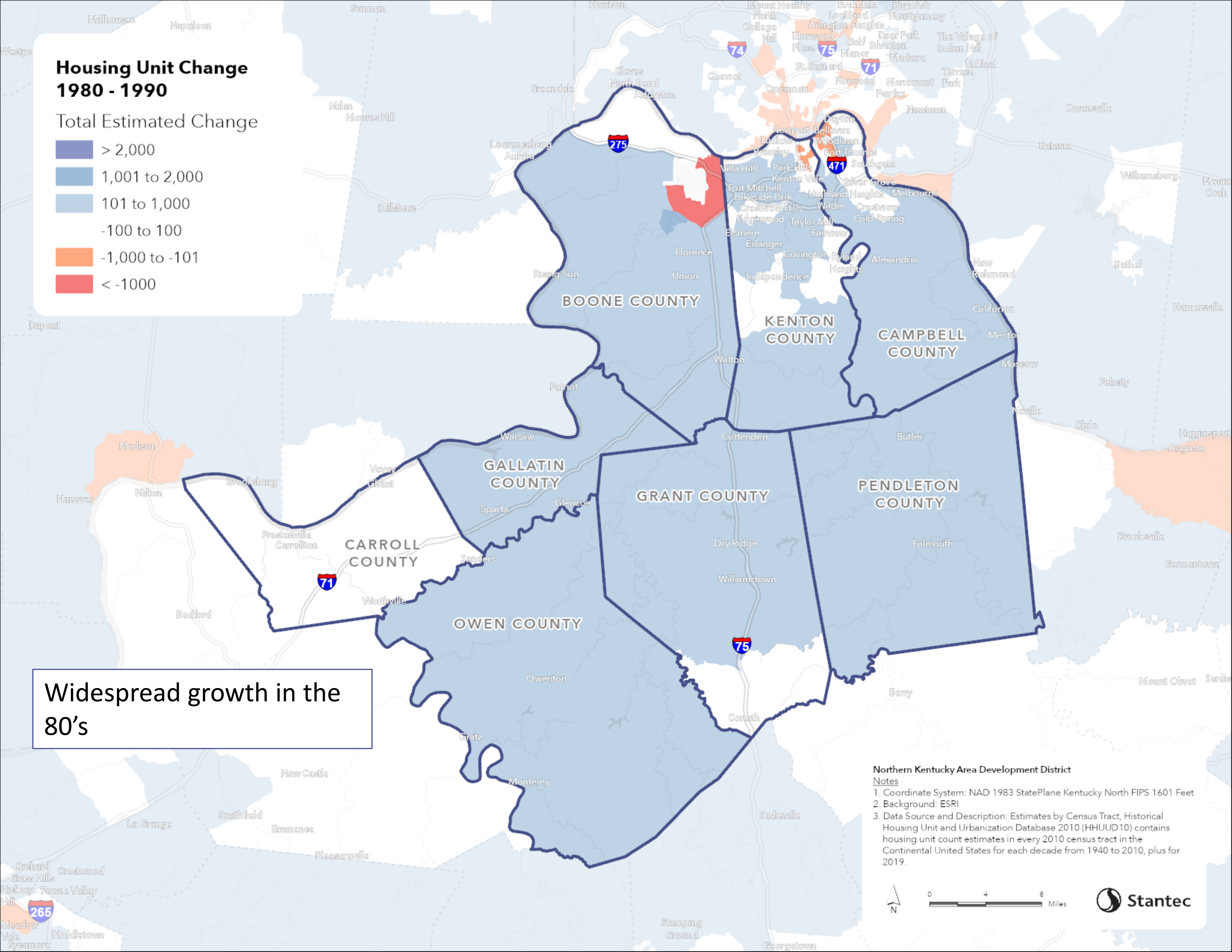

Housing Unit Change
1940 - 1950
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Owenton
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
N
0
4
8
Miles
Stantec

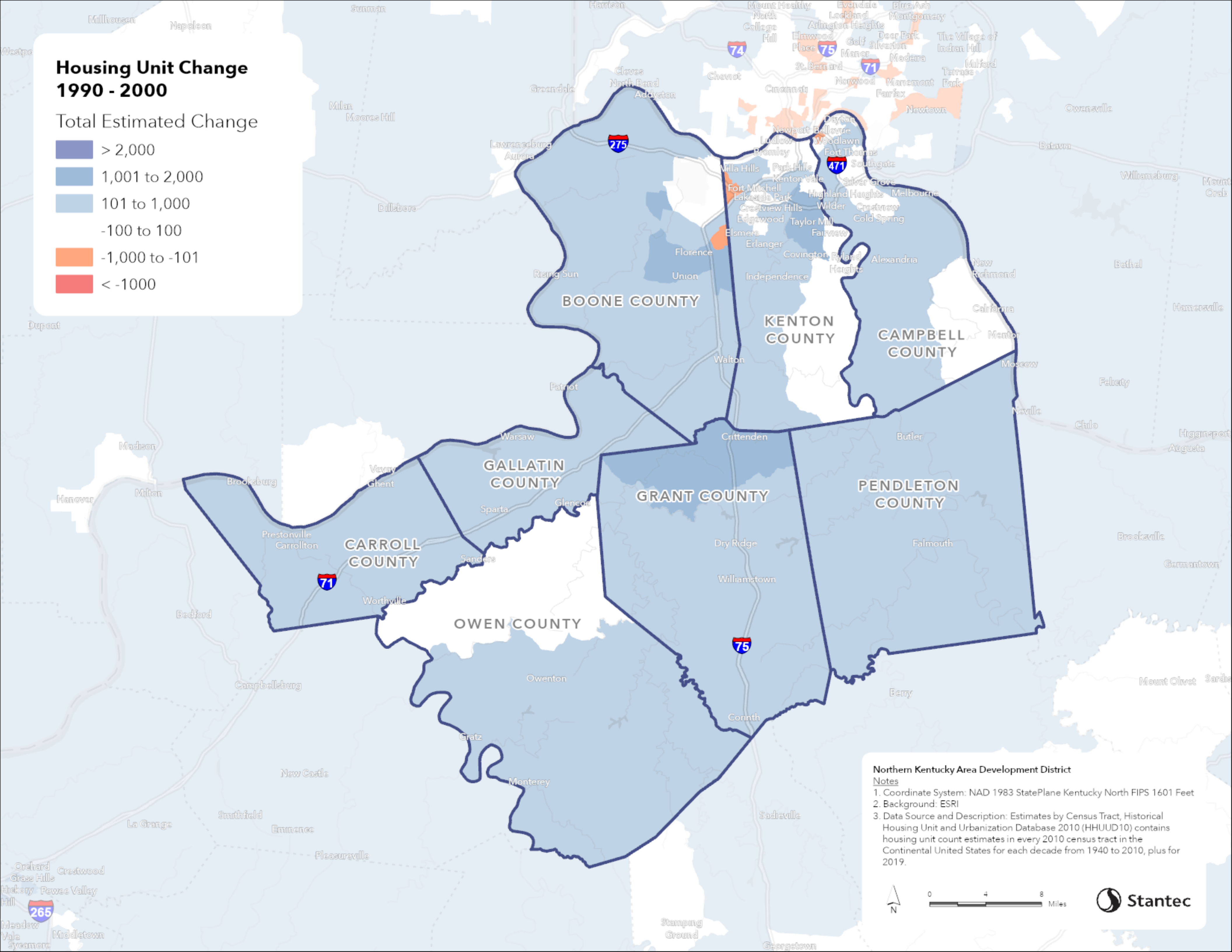


Housing Unit Change
1950 - 1960
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
275
471
74
75
71
265
Cincinnati
Covington
Newport
Bellevue
Dayton
Ludlow
Fort Thomas
Florence
Erlanger
Independence
Alexandria
Walton
Union
Burlington
Warsaw
Carrollton
Williamstown
Dry Ridge
Falmouth
Owenton
Crittenden
Butler
Corinth
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
N
0
4
8
Miles
Stantec

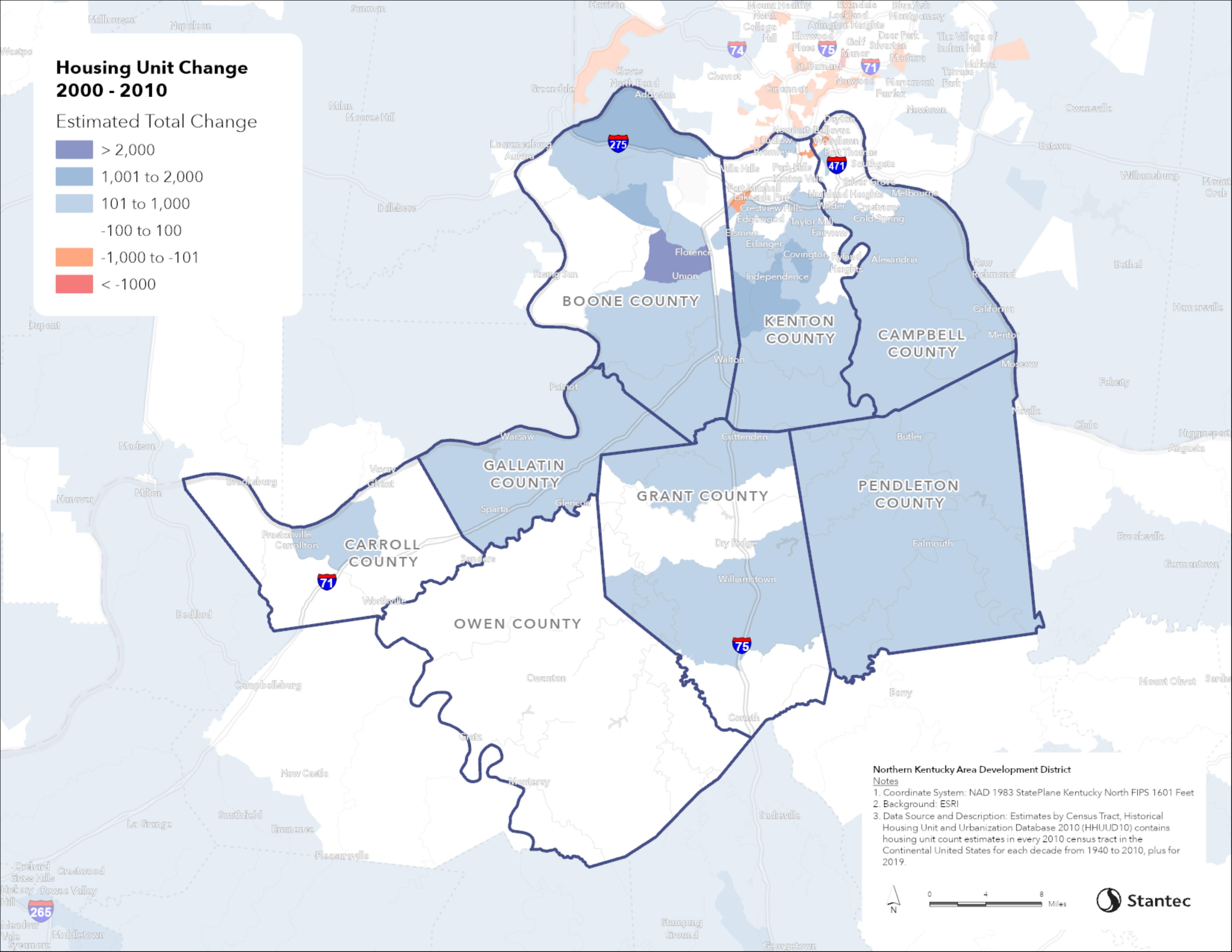

Housing Unit Change
1960 - 1970
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
0 4 8 Miles
N
Stantec

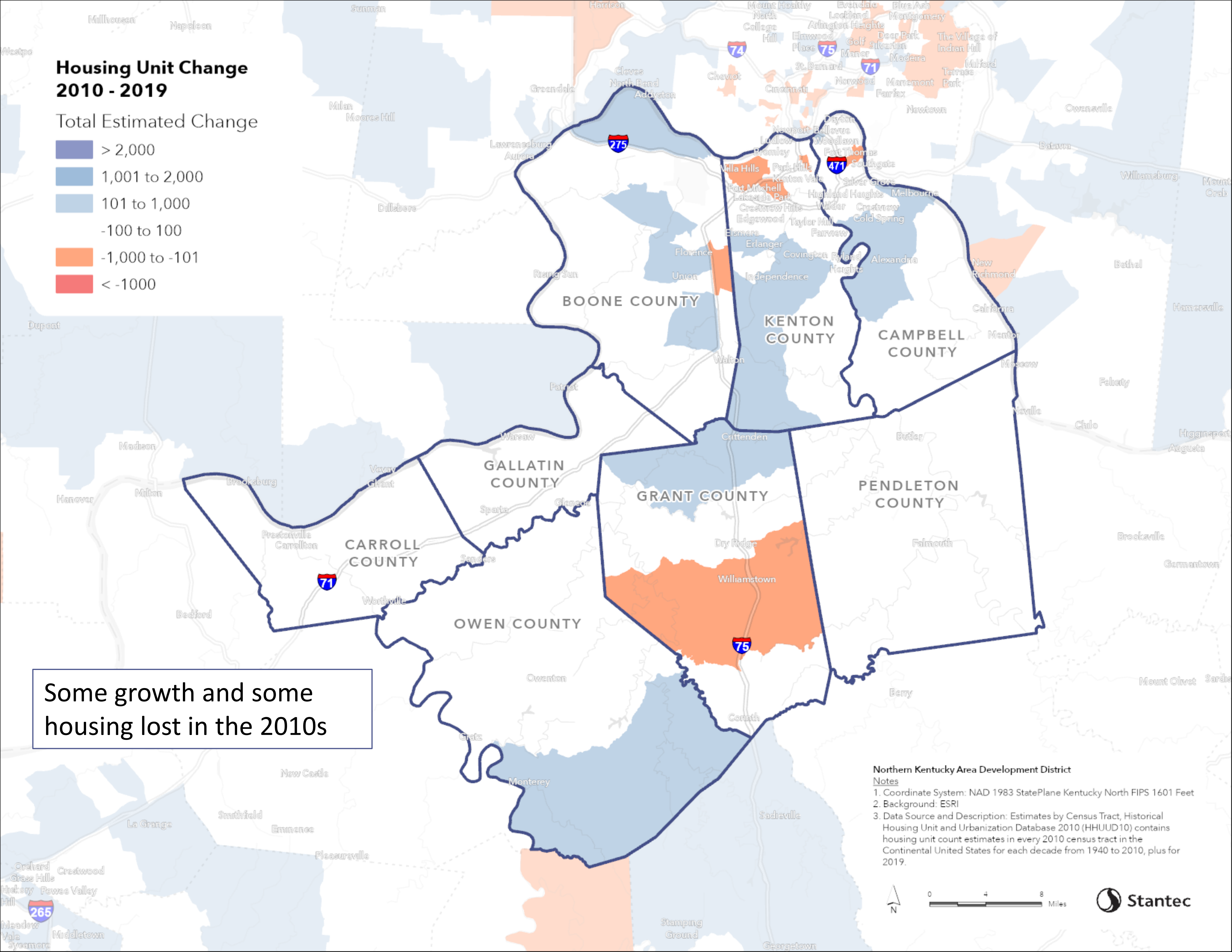

Housing Unit Change 1970 - 1980
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Widespread growth in the 70's
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
0 4 8 Miles
N
Stantec

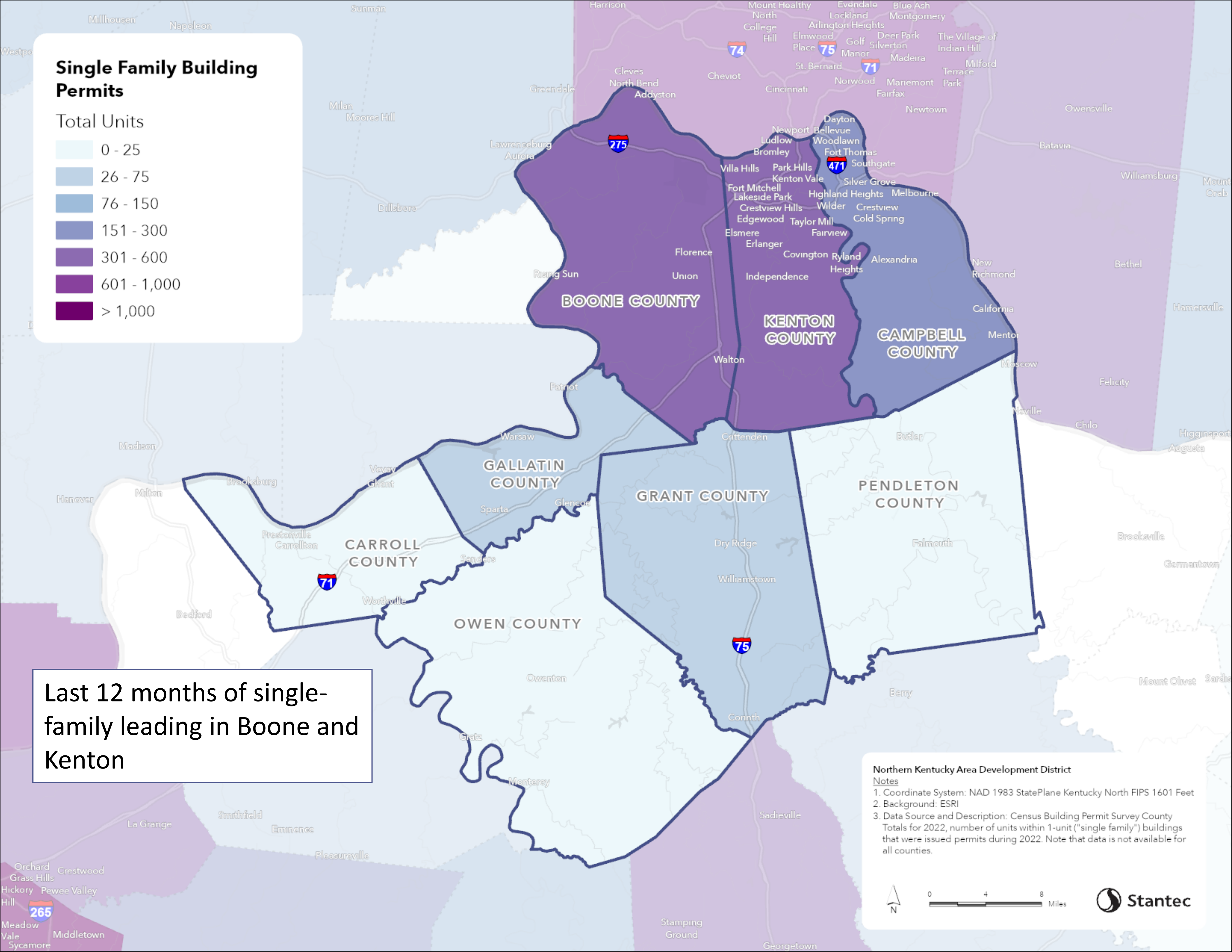

Housing Unit Change
1980 - 1990
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Widespread growth in the 80's
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
N
0 4 8 Miles
Stantec



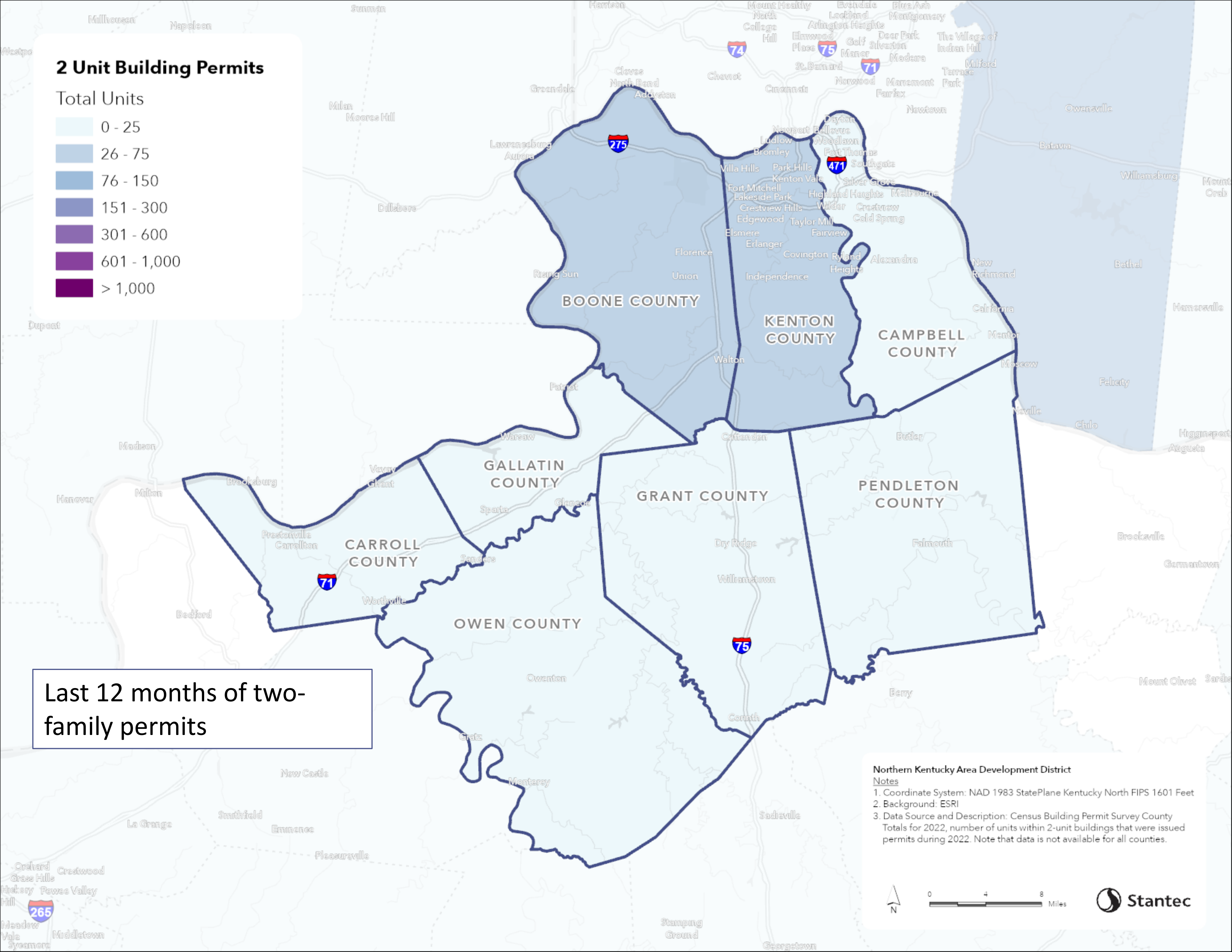
Housing Unit Change
1990 - 2000
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
0
4
8
Miles
N
Stantec

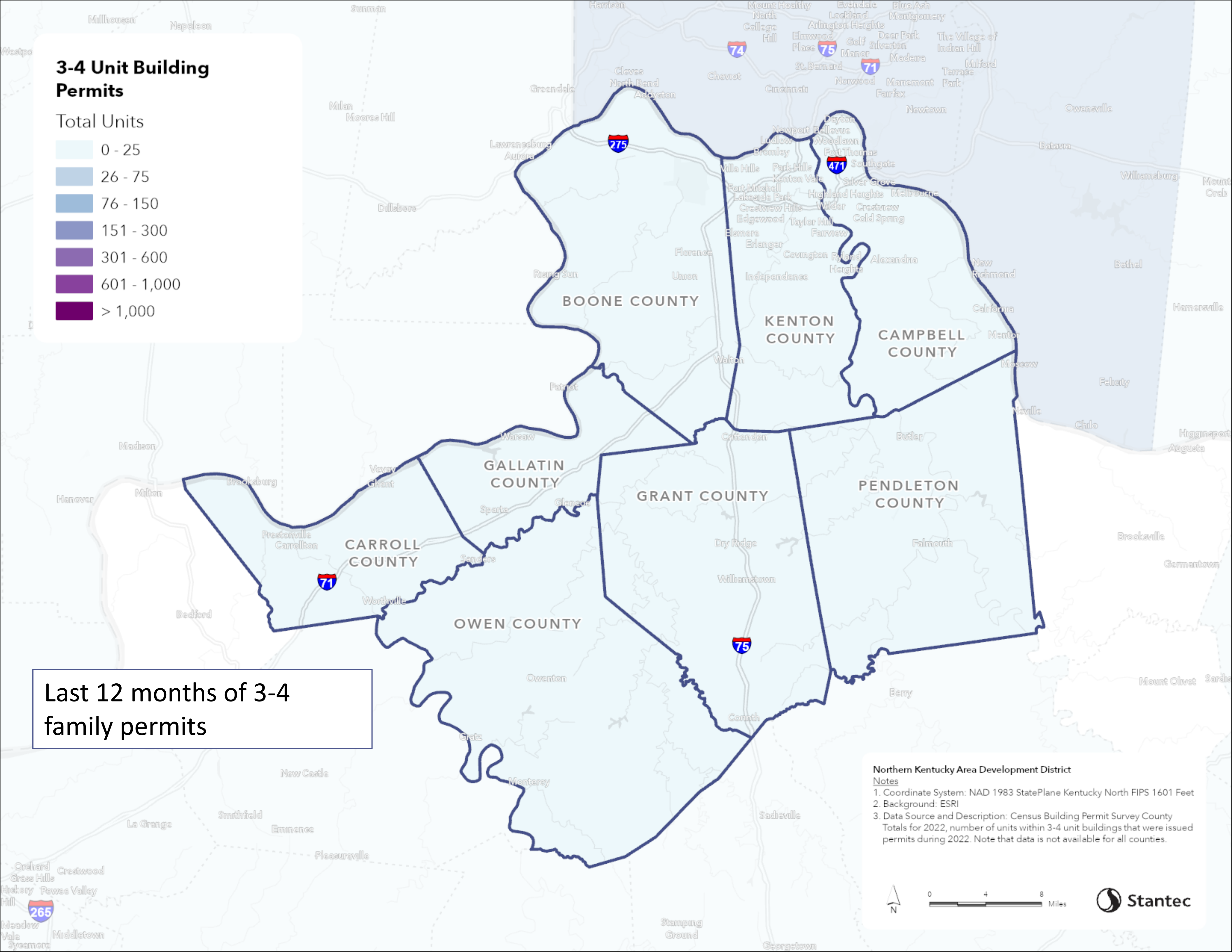

Housing Unit Change
2000 - 2010
Estimated Total Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Florence
Union
Independence
Covington
Alexandria
Walton
Crittenden
Butler
Warsaw
Williamstown
Dry Ridge
Falmouth
Owenton
Carrollton
Cincinnati
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
0
4
8
Miles
N
Stantec

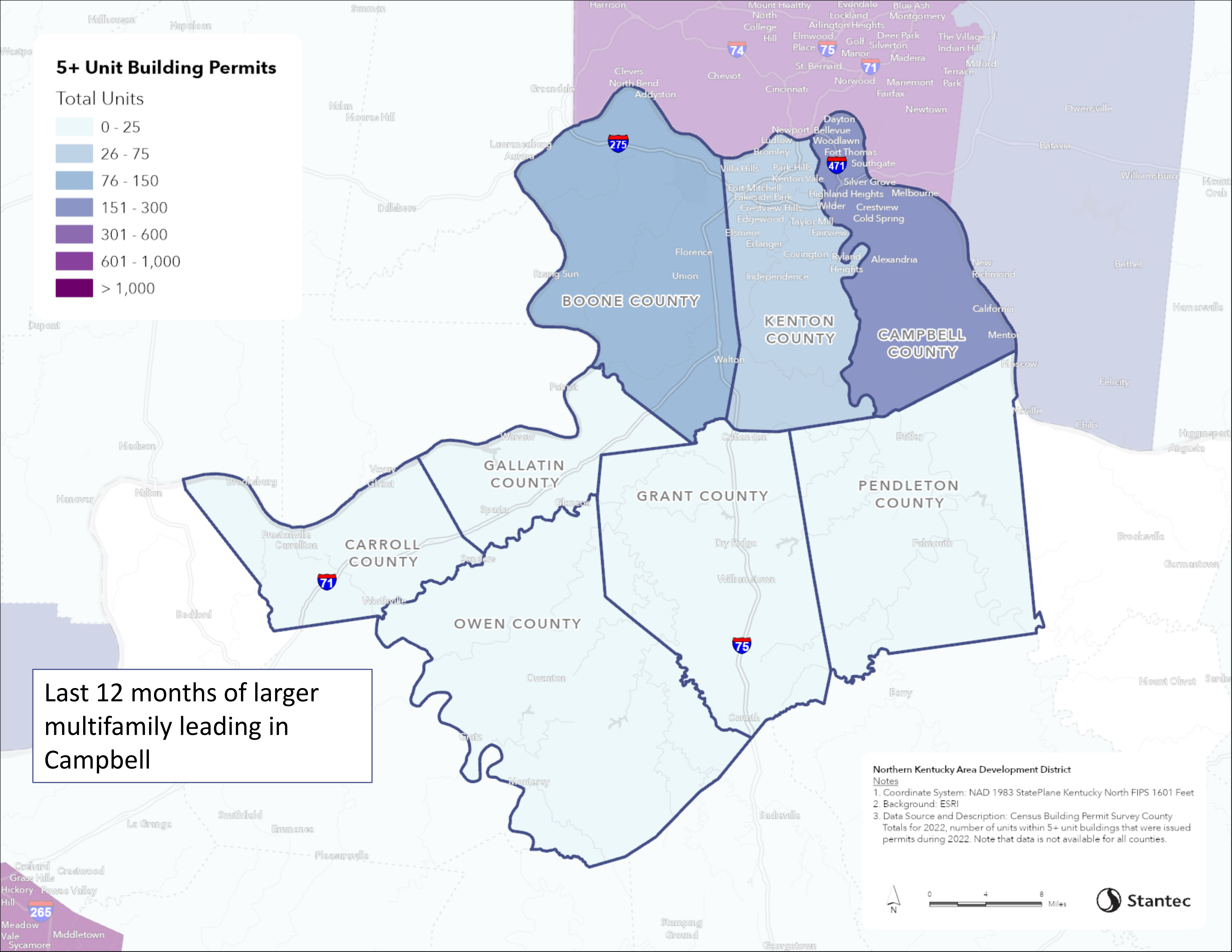

Housing Unit Change
2010 - 2019
Total Estimated Change
> 2,000
1,001 to 2,000
101 to 1,000
-100 to 100
-1,000 to -101
< -1000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Some growth and some housing lost in the 2010s
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Estimates by Census Tract, Historical Housing Unit and Urbanization Database 2010 (HHUUD10) contains housing unit count estimates in every 2010 census tract in the Continental United States for each decade from 1940 to 2010, plus for 2019.
0
4
8
Miles
N
Stantec



Last 12 months of single-family leading in Boone and Kenton


2 Unit Building Permits
Total Units
0 - 25
26 - 75
76 - 150
151 - 300
301 - 600
601 - 1,000
> 1,000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Last 12 months of two-family permits
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Census Building Permit Survey County Totals for 2022, number of units within 2-unit buildings that were issued permits during 2022. Note that data is not available for all counties.
N
0
4
8
Miles
Stantec


3-4 Unit Building Permits
Total Units
0 - 25
26 - 75
76 - 150
151 - 300
301 - 600
601 - 1,000
> 1,000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Last 12 months of 3-4 family permits
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Census Building Permit Survey County Totals for 2022, number of units within 3-4 unit buildings that were issued permits during 2022. Note that data is not available for all counties.
0 4 8 Miles
Stantec


5+ Unit Building Permits
Total Units
0 - 25
26 - 75
76 - 150
151 - 300
301 - 600
601 - 1,000
> 1,000
BOONE COUNTY
KENTON COUNTY
CAMPBELL COUNTY
GALLATIN COUNTY
GRANT COUNTY
PENDLETON COUNTY
CARROLL COUNTY
OWEN COUNTY
Last 12 months of larger multifamily leading in Campbell
Northern Kentucky Area Development District
Notes
1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Background: ESRI
3. Data Source and Description: Census Building Permit Survey County Totals for 2022, number of units within 5+ unit buildings that were issued permits during 2022. Note that data is not available for all counties.
N
0
4
8
Miles
Stantec