

State of Metropolitan Housing Report

2011



Metropolitan Housing Coalition



Letter to MHC Members

This year the *2011 State of Metropolitan Housing Report* uses updates from the 2010 Census and combines that with new data from the American Community Survey. We continue to document deep changes that have occurred in our community since 2005 when the foreclosure crisis began to dovetail with the economic crisis. The trends in foreclosure, vacant properties, homeless families with children and loss of value in some of our neighborhoods have led to a Louisville in crisis. There are over 25,000 households on the waiting list for housing assistance and our median income has decreased.

This year our focus topic is the environmental issues that affect fair and affordable housing. Air, water, and soil are issues that have environmental justice components. Answers such as energy-efficient housing, better public transit and sustainable development not only address cost and choice issues, but keep our community healthy for us all.

The data in the 2011 SMHR shows:

- Subsidized housing in Louisville Metro remains highly concentrated. Nearly three-fourths of all subsidized housing units in Jefferson County are located in seven out of 26 Metro Council districts (districts 1, 2, 3, 4, 5, 6, and 15), while districts 7 and 16's combined total of subsidized units is only 0.3 percent.
- In 2010, 15.3 percent of all people in the Louisville Metropolitan Statistical Area (MSA) were below the poverty threshold (American Community Survey, 2010).
- Within the Louisville MSA, renters comprise a little over a third of the total number of households, and nearly half (48 percent) of renter households cannot afford a two-bedroom unit at Fair Market Rent.
- Of the 22 major industry sectors in the Louisville MSA, six of these (comprising 28 percent of the total employment) have median annual incomes that fall **below** the annual income needed for a household to afford a two-bedroom rental unit at Fair Market Rent.
- There has been a 6 percent decrease in the number of affordable housing units in Louisville Metro over the past year, which includes a loss of 663 public housing units.
- The 2010 homeownership rate in the Louisville MSA dropped to 63.4 percent, the lowest rate since 2005.
- The Louisville MSA saw a total of 8,361 foreclosures in 2010, an increase of 17 percent from 2009.
- During the 2010-2011 school year, 9.6 percent of the total student enrollment for Jefferson County Public Schools (JCPS) was homeless at some point during the school year.

While the data paint a picture of need, MHC always looks to how things can be better and this year is no exception. Instead of just listing our accomplishments since last year, we give you a way to work on all of these issues.

MHC is working on ways to increase investment in fair and affordable housing and we see several bright spots.

- The Louisville Affordable Housing Trust Fund (LAHTF) is up and running and Mayor Fischer has given the LAHTF a challenge match grant to start raising funds for programs. Join us in advocating for funding for the LAHTF.
- MHC's Annual Meeting speaker, Dan Kildee from the Center for Community Progress, gave us a roadmap to keep money from the collection of delinquent property taxes in our community instead of exporting those funds. Local control of this process will not only mean increased funds for housing (without raising any fee or tax) but will result in the equal treatment of all delinquent taxpayers instead of the unequal and unpredictable treatment that is currently happening.

Join the Local Options for Kentucky Liens (LOKL) coalition to give local control of collecting delinquent property taxes back to Kentucky's counties.

- The Land Development Code (LDC) is under review and requires vigilance and advocacy to make sure that fair and affordable housing is allowed in all parts of Louisville Metro. MHC published the *State of Fair Housing in Louisville: Impediments and Improvements* this year which showed that where we zone to permit or prevent affordable housing keeps Louisville segregated by race, family type, sex and disability. MHC participated in redrafting the LDC to allow shelters and transitional housing for homeless people and families and successfully demonstrated that we can be more inclusive.

MHC will continue to ask for your participation as the LDC gets reviewed to give strength to the commitment of affordable housing opportunities throughout Louisville Metro.

- MHC was an Intervener in three cases before the Public Service Commission in which the cost of utilities was under review. MHC represented the need for energy-efficient rehab programs for low-income households, particularly as we face rising energy costs. Investments like these have a huge impact in affordability of shelter.
- MHC continues to operate a loan pool for non-profit developers with the support of the Kentucky Housing Corporation. Despite setbacks in funding, the pool was able to invest in the construction and rehabilitation of 166 affordable housing units in Program Year 2010.
- MHC collaborated with many partners on issues relating to homeless children which resulted in a day-long training event for staff of JCPS, Family Court and the Kentucky Department of Community-Based Services. This collaboration is being recognized in the Pyramid Awards and has also led to MHC's first HUD grant for research. This work has solidified our partnership with JCPS, Spalding University and the Coalition for the Homeless.

We want to thank the major donors who have made our work possible as well as the members of MHC who support this work financially and with their time and commitment.

Christie J. McCravy
MHC Board President

Cathy Hinko
Executive Director
Metropolitan Housing Coalition



Table of Contents

Letter to MHC Members i

Introduction 1

Measures of Housing Affordability

Measure 1: Concentration of Subsidized Housing..... 10

Measure 2: Housing Segregation 12

Measure 3: Renters with Excessive Cost Burden 14

Measure 4: Production and Rehabilitation of Affordable Housing..... 16

Measure 5: Homeownership Rate 17

Measure 6: Access to Homeownership 18

Measure 7: Foreclosures..... 19

Measure 8: Homelessness 21

Measure 9: Community Development Block Grants (CDBG) and HOME Funds..... 22

Appendix

Data Sources..... 23

Definitions 24

References 26

Annual Meeting Sponsors..... 28

State of Metropolitan Housing Report Sponsors..... 28

MHC Board of Directors 29

Foundations and Grant-Making Institutions 30

MHC Staff 30

Acknowledgements 30

MHC Individual Members 31

MHC Organizational Members..... 32



2011 State of Metropolitan Housing Report

Environmental factors are an integral part of defining safe, fair and affordable housing. The link between the environment and housing is not a new or radical concept. Energy efficiency and housing affordability, the proximity of housing to air and water pollution sources, lead paint in the home and in the surrounding soil, the environmental impacts of vacant properties, and energy use as it relates to housing and transportation options are all examples of established links between environmental issues and housing. This year's *State of Metropolitan Housing Report* focuses on this relationship and how it impacts the Louisville area. We provide an overview of some of these concerns, examine these issues locally, and present case studies and examples to inform action in Louisville.

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

– U. S Environmental Protection Agency

ENVIRONMENTAL IMPACTS OF HOUSING

There are several strategies that can be used to promote housing that is fair, affordable, and environmentally sound. Affordable housing should be built near existing jobs and centers of job creation to reduce work commutes for residents. A reduction in commute time reduces the auto emissions that result from long commutes; saves commuters money on gasoline and auto maintenance; and, in cases where other transportation options such as walking, biking, or public transit are available, removes auto emissions from that commute, altogether. Affordable housing development should also prioritize infill in already-developed areas to reduce construction on undeveloped greenspace and promote adaptive reuse of existing buildings to reduce construction materials and waste. Affordable housing can also be created by converting existing housing to affordable units, thereby avoiding any costs for new construction or development of unused land. In addition, energy efficiency and the cost of utilities are an important and often overlooked component of housing affordability, and units should be constructed, or retrofitted with, energy-efficient features to reduce energy costs for residents.

Housing Affordability vs. Greenspace Preservation

Are the goals of affordable housing and greenspace preservation at odds? Some have argued that preserving greenspace and mandating higher-density development increases housing prices, thereby reducing the availability of affordable homes. However, affordable

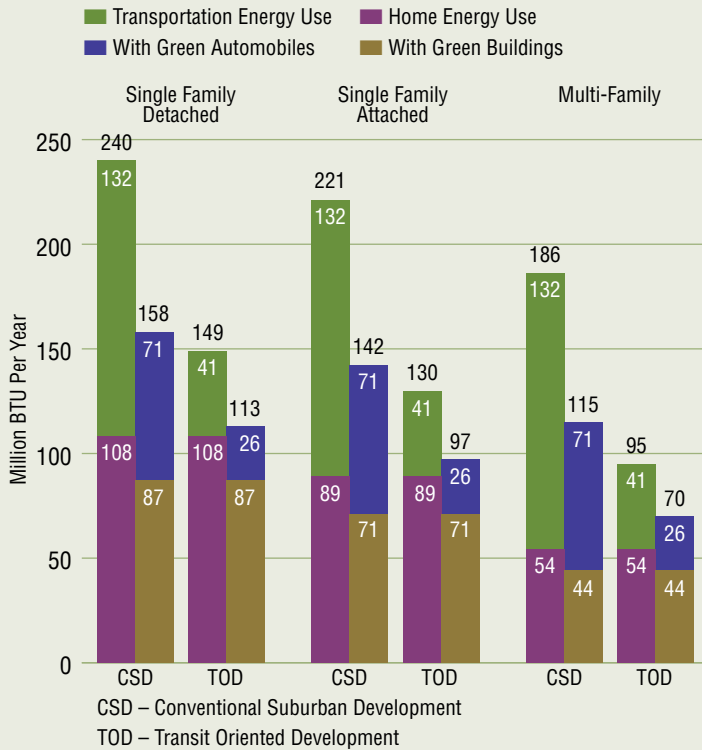
housing strategies that mandate the creation of affordable units such as inclusionary zoning (see the *2006* and *2010 State of Metropolitan Housing Reports*) can provide affordable units even in high-cost areas, to give residents access to other cost-saving benefits such as multiple transportation options and proximity to job centers and community amenities. The Vermont Housing and Conservation Trust Fund is seen as a model for linking the goals of greenspace preservation and housing affordability. Since its inception in 1987, it has provided affordable housing for over 10,000 people and saved over 165,000 acres of farms and open space. A broad-based coalition, which included the State's land trusts, housing advocates, historic preservation groups, and environmentalists, was formed and lobbied to pass legislation to create the joint trust fund (Axel-Lute, 1999). The groups found a common goal in the recognition that affordable housing was a necessity, but should be developed without promoting low-density sprawl and sacrificing Vermont's farmland and greenspace. Other similar coalitions have been formed through an understanding of the relationship between urban disinvestment and the loss of open space.

Location Efficiency and Housing Type

A recent study conducted for the U.S. Environmental Protection Agency (EPA) examined the relationship between housing type, location, and energy use to determine what type of development is the most energy efficient. The study concluded that both the type of housing (single-family vs. multi-family) and the location of housing play an important role in household energy usage (Hernandez, Lister, and Suarez, 2011). Both housing location and type also play a greater role in energy usage than energy-efficient construction and fuel-efficient cars. The researchers compared the effects of conventional suburban development (CSD) with transit-oriented development (TOD) on household energy usage in British Thermal Units (BTUs). The study found that TOD households use 38 to 50 percent less energy (depending on housing type) than their CSD counterparts. These energy savings are 53 to 62 percent greater if the TOD home is energy efficient and the household drives an energy-efficient vehicle. The researchers use the term *location efficient housing* to describe more energy-efficient development patterns such as TOD, where housing is located in a walkable neighborhood near public transit, employment centers, schools, and other amenities that allow residents to drive less, thereby reducing transportation costs and vehicle emissions. These higher-density developments also use less land, preserve greenspace, and typically include multi-family housing which is more energy efficient and uses fewer building materials than single-family construction.



Location Efficiency and Housing Type: A Comparison of Energy Usage



Environmental Impacts of Vacant Properties and Brownfields

The negative economic impacts of vacant land on surrounding properties are well-documented, but vacant properties also have negative environmental impacts on neighborhoods. Vacant properties, whether vacant structures or empty lots that are not maintained, can potentially produce a number of conditions that negatively impact both the natural environment and human safety, including leaking sewage, fire hazards, rodent infestations, and illegal dumping. Deteriorating structures, particularly older homes such as those found throughout Louisville's urban neighborhoods, deposit lead from paint and other contaminants into the soil, which can eventually reach waterways and impact other areas within the watershed. Severely deteriorated vacant structures are sometimes demolished, the process of which can result in environmental and health concerns, as well. Demolition of older structures, which often contain lead paint and pipes and other harmful chemicals, can produce significant increases in lead dust within 10 meters of a demolition site (Farfel et al., 2003). Even debris removal following

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A "Deep Energy Retrofit" for Public Housing in Boston

The cost of utilities and energy efficiency are a component of housing affordability (see the *2008 State of Metropolitan Housing Report*). As energy costs rise, some affordable housing providers are taking action. Boston's public housing authority assembled funding from over a dozen entities at the local, state, and federal level for a "Deep Energy Retrofit" of the Castle Square Apartments. The 1960s-era mid-rise building includes 192 public housing units, and is being retrofitted to provide a 50 to 70 percent reduction in energy use. The goal of the project is to cut energy use by 72 percent, reduce residents' energy bills, and reduce the building's carbon footprint. It will also add a retail component and a community center to the development. The project is 100 percent funded by grants, loans, the Low-Income Housing Tax Credit (LIHTC) program, and some owner equity (including partial funding from federal stimulus dollars). Operational costs will be less vulnerable to spikes in energy costs, providing more stability and predictability in preserving affordability. The units will then be more affordable to operate and maintain over the long-term. The project also provides an example of reuse and retrofit in providing affordable housing that offers access to amenities and transportation options in an urban area, thereby keeping auto emissions low while also reducing the building's carbon footprint (Frey, 2011).



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demolition can produce lead dust fall as high as during demolition itself. In some cases, older homes are demolished and the debris pushed into the basement of the home and covered over, leaving the burden of lead and other building materials and contaminants buried on the property for future owners or developers.

Brownfields are a special vacant or under-utilized property problem that carry the additional stigma of perceived and real contamination from previous uses. Neighborhoods in or near former industrial areas all over the country are contending with assessment and clean-up of these areas. While some have focused on maintaining the industrial use of former brownfields, others have succeeded in reusing brownfields for housing. An example of this in Louisville is the development at Shipp and 7th Street, a 42-acre brownfield upon which student housing for the University of Louisville was built. The area was assessed, cleaned and contaminants were contained with a vapor intrusion barrier. Another example is Rowan Place at 2132 Rowan St. The former Distler Warehouse, when remediated, became 42 affordable senior housing units (Pike, 2003). One area in Louisville that is the focus of Louisville Metro's Brownfields Assessment grants is the Park Hill Corridor, roughly from Broadway to Algonquin, and 7th to 22nd streets. The city has adopted an economic development implementation plan that will help address many of the vacant and under-utilized properties in the corridor. The city has the opportunity to incorporate clean industry and a mixed use of housing and retail in the corridor (see Norton, 2005 for more information about redeveloping brownfields sites for affordable housing).

ENVIRONMENTAL JUSTICE

Environmental justice refers to remedying the uneven distribution of environmental harms and environmental benefits across populations based on race, ethnicity, class or other salient social categories. Executive Order No. 12898 signed in 1994 by President Clinton requires federal agencies to include "achieving environmental justice as part of [their] mission" and both *identify* and *address* uneven distributions across minority or low-income populations (Executive Order 12898). Research over the past 30 years has found that environmental harms and benefits are indeed unevenly distributed in the U.S. by race, ethnicity and class under a variety of contexts and geographies. Causes for the uneven distribution have been attributed directly to environmental racism and classism, but also indirectly through land use decisions, industry siting decisions, zoning decisions, economic development efforts, and even individuals' choice to locate near job development (Lester, Allen, and Hill, 2001). Equitable access

to environmental benefits and protection from uneven distribution of the effects of environmental harm are directly connected to how a community plans and builds.

Access to Environmental Benefits: Greenspace and Trees

Access to greenspace is of vital concern to the health of neighborhoods and the people that live in them. Greenspaces include parks, trails, and undeveloped areas. These greenspaces, including tree cover in residential yards, provide valuable environmental services such as removing air pollutants (Zeigler, 1973), improving water quality and reducing stormwater runoff (Sanders, 1986), and mitigating the urban heat island effect (Akbari, 1992; Heisler, 1986). Human health benefits have also been associated with access to greenspace. Access to close recreational facilities was shown to increase physical activity by 48 percent (Gies, 2006) and can also reduce stress levels and healing times and improve the symptoms of Attention Deficit Disorder (Lasley, 2008). Greenspaces also encourage community cohesion and increase quality of life. In addition, parks increase property values which, in turn, increase tax revenues (Crompton, 2001).

Access to environmental benefits in the form of greenspace and tree canopy is unevenly distributed in Louisville Metro. Using 2000 U.S. Census data, Lasley (2008) found that, in Louisville Metro, minority areas had a median park size of 3.61 acres while parks in predominantly white areas have a median park size of 24 acres. Her evaluation of the planned improvements to the park system through the City of Parks revealed that it includes many additional acres of park being added to predominantly white areas, while minority areas will have improvements to or restoration of sports facilities but no additional park acres. In addition, a study examining tree cover and soil contamination in 10 Louisville Metro Council districts (Scroggins, 2011) found that west end neighborhoods (where most of the subsidized housing is concentrated) such as the Portland/Shawnee and Park Duvalle/Algonquin areas, had two of the four lowest tree cover percentages (see *Our Trees and Soils: Local Research*, page 8).

Exposure to Environmental Harms: Air, Water, and Soil

Minority/low-income neighborhoods are more likely to be located near pollution sources, contaminated sites, and industrial facilities, increasing the health risks for residents. For example, in 2000, over 32 percent of the industrial land uses in Louisville Metro were located in minority census blocks (Lasley, 2008). Proximity to industrial land uses can result not only in environmental harms such



as toxic releases in to the air, soil, and water, but also exposure to truck exhaust and road dust, emissions from stationary construction equipment, unwanted smells, and other quality-of-life and health concerns. When considering the disproportionate effects of these environmental factors on nearby residents, asthma hospitalization rates have been closely associated with the distribution of poverty, proportion of minority residents, and educational attainment (Jones et al., 2004). Nationally, rates for hospitalization for asthma are three times higher for African-Americans than for Caucasians. In Louisville Metro, of the 13 zip codes exceeding the average rate of hospital asthma discharges, 10 were adjacent and roughly corresponded to the zip codes with the highest concentrations of subsidized housing.

Air Pollution

Understanding the intersection between air pollution and housing location is complex. Many air contaminants are not considered “local,” meaning they disperse and do not concentrate in small geographic areas unevenly, while others are considered local and deposit on the ground in concentrated manners or linger in the air in “clouds.” The Louisville area must contend with both types of pollutants because of our geographic location in the Ohio Valley, the number of coal-fired power plants in close proximity, and the number and types of chemical and other industry in our jurisdiction. We do, however, have a variety of mechanisms in place to monitor both localized and non-localized pollutants via the Louisville Metro Air Pollution Control District (APCD).

The connection between housing affordability and location to non-local pollutants can be seen when we examine particulate matter less than 2.5 μ ($PM_{2.5}$). $PM_{2.5}$ is a fine particulate that is inhaled and has extremely negative impacts on health, including: premature death, lung cancer, exacerbation of respiratory and cardiovascular disease, and increased risks for cardiovascular morbidity (Centers for Disease Control and Prevention [CDC], 2011). In 2005, Jefferson County was included in an area of non-attainment for $PM_{2.5}$. In many instances, air contaminants such as $PM_{2.5}$ are not concentrated by neighborhood in a community such as Louisville. The non-attainment designation means the level of $PM_{2.5}$ is unacceptable for all residents. However, the residents who are in areas with already poor indoor air quality, or who have higher instances of lead exposure, poor access to health care services and poor access to clean outdoor green space, are more susceptible to the chronic negative health effects of being exposed to $PM_{2.5}$. Their reactions to the exposure are more severe. The elderly and very young are at highest risk to the effects of air pollution. In addition, exposure to $PM_{2.5}$ exacerbates asthma (CDC, 2011). Given that the asthma hospitalization rate in Louisville Metro is highest

in low-income neighborhoods (Metropolitan Housing Coalition, 2005), we can expect differential effects to $PM_{2.5}$ exposure across our community.

Louisville’s problems with toxic air emissions are also complex. For years communities around the country have attempted to document toxic emissions and hold the emitters accountable. Since 2005, the APCD has in place one tool to address toxic emissions, the Strategic Toxic Air Reduction Program (STAR) (APCD, 2011). Even with this package of regulations and monitoring stations, it is difficult to document the exact source of certain air toxins. To complicate matters further, even if the overall measures of a particular toxic emission are within a “normal” range over a period of time, on days when there is a “spike” there are immediate negative impacts on residents of vulnerable communities who are exposed to the “spike.” Attempts to document and remedy the disproportionate impact of toxic air emissions on residents near Rubbertown have met with uneven results. Most recently, the settlement of the Rubbertown neighbors’ lawsuit against Zeon resulted in the loss of rights to sue the company for damages for residents who did not opt out of the negotiated settlement (Bruggers, 2011).

A recent study by the R.J. Lee Group for Louisville Gas and Electric (LG&E) examined surface dust particles found on homes near LG&E’s Cane Run power plant. The study was conducted in response to residents’ complaints. The study found significant amounts of fly ash and bottom ash on the homes, although the distribution was uneven and the results should be considered only an indicator of a potential hazard, requiring further research (R.J. Lee Group, 2011).

Water

Much of Louisville’s affordable housing is concentrated in west Louisville which lies along the curve of the Ohio River. This area was highly impacted by the 1937 flood (see map on page 6). Historically, stormwater control focused on moving water off of properties as quickly as possible. However, this created water control and quality issues at the larger watershed scale (U.S. Environmental Protection Agency [EPA], 2005). The management of stormwater flooding requires a comprehensive, community-wide approach. Due to the high percentage of impervious surfaces in most affordable housing areas, runoff during rain events is a common cause of flooding. Redevelopment of existing impervious surface sites prevents the addition of new impervious surfaces while bringing the associated benefits of development (EPA, 2004). In addition, brownfields can become sources of water mitigation with

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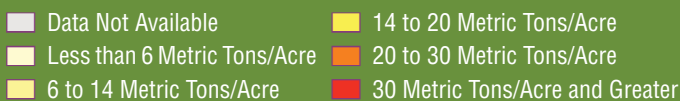


Carbon Dioxide Emissions and Housing Location in the Louisville Region

The Center for Neighborhood Technology (CNT) has developed a series of interactive maps that examine the relationship between housing and transportation. Last year's *State of Metropolitan Housing Report* showed maps that compared the cost of housing in the Louisville area with the cost of housing plus the cost when transportation was factored in. CNT's interactive mapping system also allows for other comparisons related to transportation and housing cost, such as the environmental costs of automobile use. The two maps below compare the carbon dioxide (CO₂) emissions per acre to CO₂ emissions per household. This comparison is useful because it shows that homes in denser, urban areas are more "location efficient" in that they produce far less CO₂ per household than those located in outlying areas. The difference is striking, demonstrating how many more pollutants are released into the air in the Louisville area due to low-density auto-dependent development patterns in suburban and rural areas when compared to higher-density development in more urban areas.



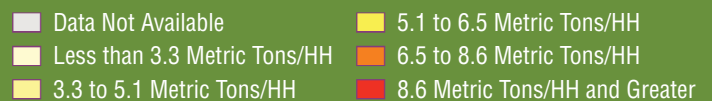
CO₂ per Acre from Household Auto Use



Total Carbon Dioxide (CO₂) Emissions are calculated for the Block Group and then divided by the total area of the Block Group, which shows that areas with higher Residential Density tend to produce more carbon dioxide per acre.



CO₂ per Household from Household Auto Use



Total Carbon Dioxide (CO₂) Emissions are calculated for the Block Group and then divided by the total number of households in the Block Group, which shows that areas with higher Residential Density have low average emissions per household. Comparing this figure with CO₂ per Acre from Household Auto Use illustrates that location efficiency reduces per household emissions.

Source: Center for Neighborhood Technology, *Housing + Transportation Affordability Index*, *Greenhouse Gas Impacts*: <http://htaindex.cnt.org/>

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the development of gardens which retain water and reduce runoff. These gardens can also be used to remediate contaminated soils by using plants that specifically retain and eliminate heavy metals and other contaminants (Langley-Turnbaugh, 2007).

The Metropolitan Sewer District (MSD) in Louisville submitted the Integrated Overflow Abatement Program (IOAP) to the EPA in 2008-2009 in order to comply with EPA-mandated consent decrees. This program was founded by the Wet Weather Team which was made up of community representatives, elected officials, and MSD personnel.

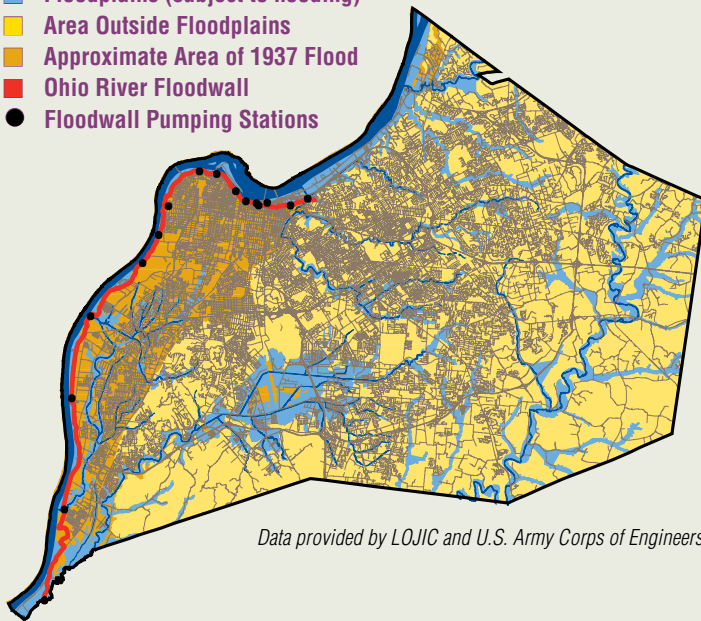
Before 2005, MSD had already reduced sewer overflow points by 300, separated 66,000 linear feet of combined sewers, eliminated 40,000 septic tanks, and expanded water quality treatment centers. The IOAP will continue this work with the goal of capturing 96 percent of overflow from combined sewer overflow, with a reduction of 290 million gallons of overflow from sanitary sewer overflows. In addition, MSD provides recommendations to customers that can help reduce flooding and water quality issues. For example, MSD encourages the removal of non-essential clean water connections such as gutters and down spouts. These can then be affixed to a rain barrel, which reduces water runoff and provides water for lawns and plants.



Other possible water mitigation techniques include maintaining and growing the tree canopy in neighborhoods. The EPA found that in South Miami, runoff was reduced by 15 percent by the existing tree canopy (EPA, 2005). The EPA's Best Management Practices (2005) also suggests that residents refrain from using the dishwasher or washing machine during rain events as this clean water waste contributes to sewer overflow.

Floodplains and Flooding in Louisville Metro

- Streams and Rivers
- Floodplains (subject to flooding)
- Area Outside Floodplains
- Approximate Area of 1937 Flood
- Ohio River Floodwall
- Floodwall Pumping Stations



Data provided by LOJIC and U.S. Army Corps of Engineers.

Soil

As the current and earlier *State of Metropolitan Housing Reports* have documented, the Louisville Metro population is concentrated geographically by race and poverty; in addition, those populations are more likely to live in older housing stock, be exposed to lead and asbestos due to the typical age of the residential units in those areas, have a higher risk of being exposed to the environmental effects of vacant properties, and be in areas with lower air quality (see the 2008, 2009, and 2010 *State of Metropolitan Housing Reports*). While all urban residential yards are likely to have a certain level of lead due to the use of leaded gasoline in recent history, as well as leaded paint and pipes in houses built prior to 1978, Scroggin's (2009) research found that the Portland/Shawnee (Metro Council district 5) and Shively/Park DuValle/Algonquin (Metro Council district 3) neighborhoods were the first and third highest for heavy metal soil contamination in the study, respectively. The Highlands (Metro Council district 8) came in

second, highlighting that although soil contamination is concentrated in certain areas, the problem is widespread (see *Our Trees and Soils: Local Research*, page 8). Heavy metal contamination in soils can lead to human health concerns such as neurological damage and anemia, particularly for children.

Inequities related to environmental issues have led to some powerful coalitions of residents, environmental groups, and local schools across the country (Arnold and Norton, 2010). In Louisville, Rubbertown Emergency Action (REACT), Kentuckians for the Commonwealth, Kentucky Resources Council, Kentucky Conservation Committee, the Sierra Club, among others, have all been involved in bringing attention to environmental protection in our region. There is ample opportunity for organizations to move Louisville forward in linking safe and affordable housing to environmental benefits and protections within the framework of sustainability that links social equity, environmental protection, and economic well-being.

Re-imagining a More Sustainable Cleveland

Re-imagining a More Sustainable Cleveland is the product of a 30-member working group convened by Neighborhood Progress, Inc., the city of Cleveland and Kent State University's Cleveland Urban Design Collaborative. This report examined ways in which Cleveland could utilize excess land to advance a more sustainable Cleveland, improve the quality of life of the residents and help address climate change, which includes changes in precipitation and flood regimes. The report suggested using vacant land to restore ecosystems that provide water retention. Using trees to reduce stormwater runoff can reduce infrastructure costs and improve water quality. In addition, the report encourages the city to continue the mow-to-own program, which allows residents who maintain adjacent vacant properties to be granted title to them. This increases the number of vacant lots providing water mitigation and also increases property values for the whole neighborhood. These maintained lots can then be used for bio- and phytoremediation (the use of plants and trees to remove or neutralize contaminants, as in polluted soil or water) which require reduced runoff to be effective. This report also included specific recommendations for watersheds in the Cleveland area, including instituting 1) Riparian Corridor Areas which buffer waterways from excess runoff as well as remediating contaminants and 2) Headwaters Area to provide wetland or other water collection facilities to reduce flooding events.



Rubbertown Emergency Action (REACT): Working for Environmental Justice in Louisville



As far back as 1918, Louisville's Rubbertown has been the site for petrochemical manufacturing with refineries producing gasoline, kerosene, fuel, oil, naphtha and petroleum coke (West Jefferson County Community Task Force [WJCCTF], 2011). During World War II, the complex of manufacturing sites expanded to produce synthetic rubber for the war effort (Hanchette et al., 2011). Over the years, many of these sites have changed hands but the complex is still home to 11 large chemical plants and is the Louisville area's largest source of industrial emissions (WJCCTF, 2011).

In 2002, the EPA ranked Louisville-Jefferson County first among 736 counties in the Southeast for health risks associated with air pollution (Bruggers, 2003). Analysis of asthma rates found a well-defined cluster of high rates of childhood asthma centered in west Louisville, particularly the Rubbertown area (Hanchette et al., 2011). A report by the Department of Health and Human Services suggested that due to children's lower body weight and higher rate of inhalation during play, children are at greater risk from exposure to certain types of pollution (Agency for Toxic Substances and Disease Registry, 2006). This report goes on to state that exposure to the pollutants present in Rubbertown may lead to an increased cancer risk.

Such issues have long concerned the residents of the neighborhoods adjacent to Rubbertown. As a result of these concerns, the grassroots organization REACT (Rubbertown Emergency Action) was founded in 2003 to address issues of environmental justice in the Rubbertown area. REACT seeks to enact strong laws to stop air pollution from chemical plants, protect residents in the event of an emergency, and encourage

the full disclosure of information on the impacts of Rubbertown plants on residents (Cochran, 2011). Eboni Neal Cochran has been involved with REACT since shortly after its inception in 2003. While working to hold companies accountable, her main goal is "increased quality of life" for the residents of the Rubbertown area. REACT seeks to encourage homeowner buy-out by local industries, the use of safer chemical alternatives, and the enforcement of current environmental policy.

The environmental justice movement has been traced back to at least 1978 in Warren County, North Carolina, where residents began protesting a polychlorinated biphenyl (PCB) dump (Brown, 1995). This movement grew due to the acknowledgement of the disproportionate presence of potentially harmful facilities in minority/low-income neighborhoods (Hanchette et al., 2011). A 1987 study by the Commission for Racial Justice of the United Church of Christ found that communities with the highest percentage of minorities also were the most likely to be located near toxic waste facilities. Robert D. Bullard began documenting the uneven distribution of solid waste disposal facilities in Houston, Texas, in 1979 and has continued to produce evidence that shows that minority and poor communities bear a disproportionate amount of environmental risks and actual harms and are less likely to have access to environmental benefits (Bullard 2000; Bullard, Johnson, and Torres, 2000; Bullard, 2007). As long as such inequities exist, grassroots community-based organizations such as REACT will work to get justice for disadvantaged residents. Strong community cohesion and a history of civil rights traditions (Brown, 1995) in such minority neighborhoods will be a driving force in the future of environmental justice.



Our Trees and Soils: Local Research

Shannon A. Scroggins, University of Louisville

Neighborhoods are not only composed of built structures, such as houses, streets, and sidewalks, but are also surrounded by a living, green environment – trees, lawns, and gardens. Trees in residential areas provide valuable services by decreasing the energy used to heat and cool homes, removing air pollutants, improving water quality, and decreasing stormwater runoff into streams (Ziegler, 1973; Rolfe, 1974; Heisler, 1986; Sanders, 1986; Akbari et al, 1992). Underlying the green environment are soils that nurture the plants that beautify our homes and streets. Unfortunately, the soil in people's yards may contain dangerous heavy metals, such as lead, nickel, cadmium, and zinc. In small amounts, some of these metallic elements are needed to maintain human health, but in larger amounts, many of these heavy metals, particularly lead, can cause serious health problems like anemia and neurological damage, especially in young children (Miller, 2005). Sources of these materials in residential yards include the underlying rock and materials used in the home itself (e.g., lead-based paint, pesticides). Neighborhoods that are closer to interstates, busy streets, and power plants also receive deposits of airborne heavy metals from coal combustion (Pouyat and McDonnell, 1991; Manta et al, 2002) and in the past from leaded gasoline.

In the summer of 2008, as a member of Dr. Margaret Carreiro's lab at the University of Louisville, I conducted research on trees and soils in the residential areas of 10 Louisville Metro Council districts in partial fulfillment of a master's of science degree. The tree study was funded by the Kentucky Division of Forestry and was done in partnership with Jefferson County Public Schools and Metro Parks. A grant from the Commission on Diversity and Racial Equality (CODRE) at the University of Louisville funded analysis of soil heavy metal concentrations. One purpose of the study was to determine how trees were distributed in neighborhoods and how much benefit residents in these areas were receiving from these trees. Another objective of the study was to collect and analyze soil samples to discover heavy metal levels in individual yards as well as to compare these values in the different council districts. Two of the research council districts fell, at least in part, in west Louisville. Metro Council district 5 is completely within the boundaries of West Louisville and contains the Portland and Shawnee neighborhoods. The northern part of Metro Council district 3 includes the Park DuValle and Algonquin neighborhoods, although the bulk of the district encompasses Shively.



The collected tree data were submitted to the U.S. Forest Service and analyzed by their Urban Forest Effects (UFORE) model. The results revealed that the Portland/Shawnee area had the second lowest tree cover (20.2 percent), and Metro Council district 3 the fourth lowest (23.6 percent), of the 10 council districts studied. Portland/Shawnee also had the third lowest amount of area to plant trees (15.8 percent). This means that there is limited opportunity, at least in residential yards, to plant more trees and increase the valuable services that trees provide to the residents of this part of west Louisville.

Soil samples were submitted for analysis to the University of Kentucky, Division of Regulatory Services. Total heavy metal values and specifically lead levels in yard soils were highest in Portland/Shawnee and third highest in Metro Council district 3 (Shively, Park DuValle, Algonquin). Metro Council district 8 (the Highlands) had the second highest total heavy metal and lead values of the 10 council districts studied. Heavy metal contamination in soils is of concern due to the potential for these metals to harm human health. Plants can take up many of these heavy metals from soil and concentrate them in their leaves and stems and humans are exposed to these heavy metals when they consume contaminated fruits and vegetables (Chaney et al, 1984). Lead is a heavy metal of special concern because it can cause neurological damage and anemia, with young children being the most vulnerable to its effects (Miller, 2005). Lead exposure occurs primarily via contact with or inhalation/ingestion of contaminated soil (Finster et al, 2004; Clark et al, 2008). Exposure to these heavy metals is of great concern in light of the increased interest in urban agriculture and underlines the importance of testing soils for heavy metal concentrations before growing food for human consumption.



CONCLUSIONS AND RECOMMENDATIONS

Louisville Metro has the opportunity to address the uneven distributions of environmental harms and benefits as the city begins to tackle the implementation of its climate action plan and develop a more sustainable city. Louisville faces vacant land problems that affect residential, commercial and industrial properties. Because Louisville is an urban area, all of our soil is suspect for heavy metals, especially lead. Louisville's air quality does not meet safe health standards for PM_{2.5} and other pollutants. Local industries continue to emit toxic chemicals into the air. Our waterways are polluted and we have experienced a range of problems as a result of frequent flooding. Our utility costs continue to increase dramatically. CO₂ emissions from all sectors are high. These environmental harms are of concern to our entire community, but the risks and negative impacts of these harms are unevenly distributed across Louisville Metro.

Recent examples of steps Louisville Metro Government has taken to improve the city's environment and quality of life, include: creating Louisville's climate action plan, appointing a new team leader for the city's Vacant and Abandoned Property Initiative, obtaining several brownfields assessment grants and revolving loan programs for clean-up, maintaining the APCD's STAR program and implementing an anti-idling policy, supporting MSD's innovative use of green infrastructure and storm-water mitigation technology, increasing the number and acreage of parks and green spaces through the "City of Parks" and other programs, and the creation of an office of sustainability. The community as a whole benefits from each of these actions, although there are pockets of the community that do not.

Sustainable development requires policies that address environmental protection, social equity, and economic well-being for all members of the community. This means policies that, through a combination of regulation, incentives, stiff penalties, and education, support the following:

- Adopting a land development plan and code that protects natural resources in concert with the creation of affordable housing.
- Holding local polluters accountable in a meaningful way.
- Cooperation with regional air quality improvement efforts to address pollutants such as PM_{2.5}.
- Adequate remedies for residents located in close proximity to high-risk polluting industry.
- A robust vacant property program in which residents are full participants.

- A city-wide heavy metal soil testing and education program for public and private properties.
- Grants and low-interest loans to retrofit existing affordable housing for energy efficiency.
- Investment in protecting and expanding the urban tree canopy.
- Incentives for truly green employers to locate in areas in need of economic development.
- Forums for brownfield assessments and cleanups to educate vacant and under-utilized land owners about opportunities to improve their property.
- Equitable planning and development of parks and greenspace.
- Making environmental justice part of the mission of all city agencies, mirroring the Presidential Executive Order 12898, by identifying and addressing the uneven distribution of environmental harms and access to environmental benefits across our community.





MEASURE 1: Concentration of Subsidized Housing

Nearly three-fourths of all Louisville Metro's subsidized housing units are located within seven out of 26 Metro Council districts (districts 1, 2, 3, 4, 5, 6, and 15). These subsidized units include public housing, Section 8 housing choice voucher (HCV), and Section 8 project-based units. In both Metro Council districts 4 and 6 subsidized housing makes up about one-half of all housing units.

Conversely, Metro Council districts 7 and 16's combined total of subsidized units is only 0.3 percent (50 out of 19,123).

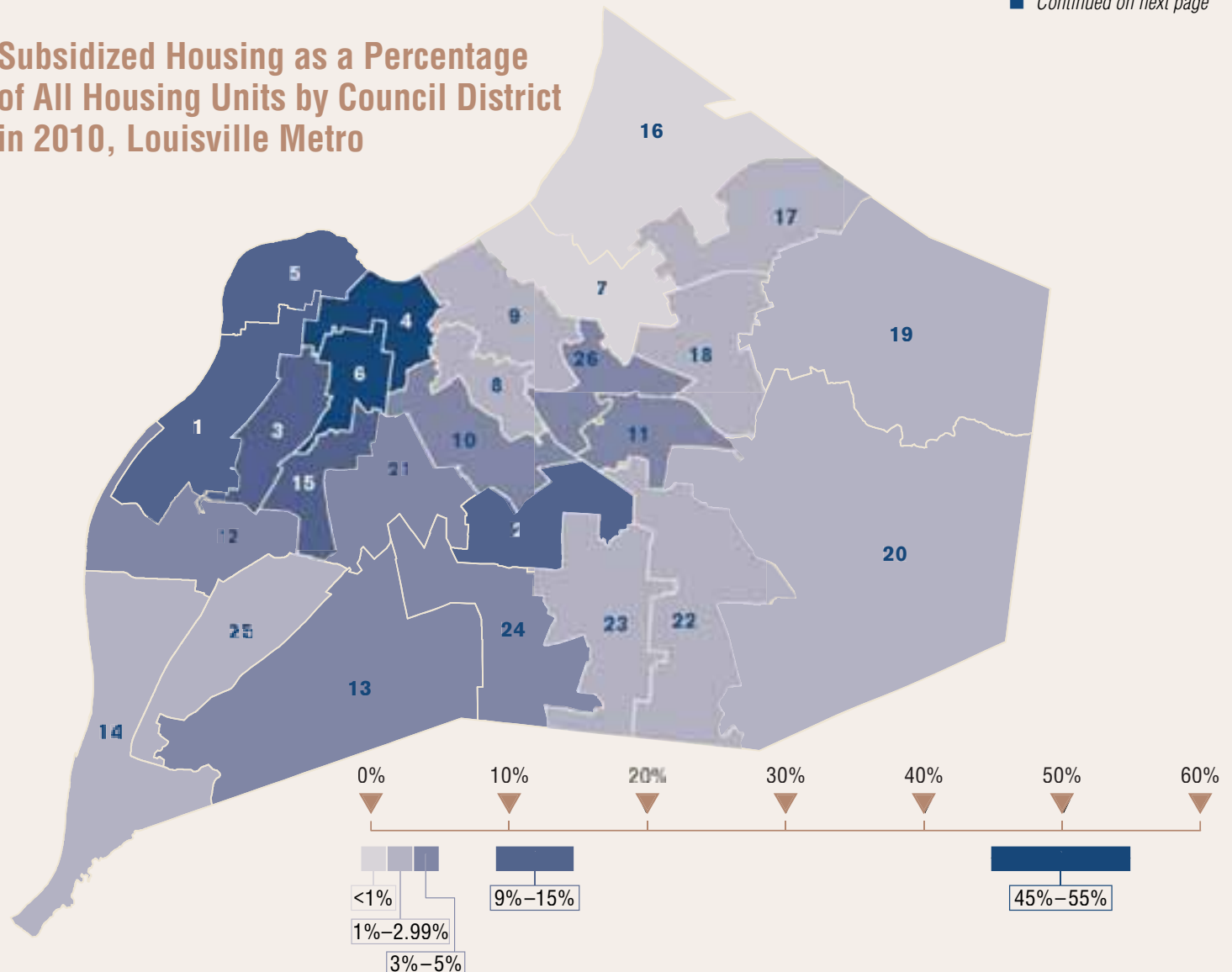
Geographically, the distribution of subsidized units within Louisville Metro is densest in the downtown area and the neighborhoods immediately west of downtown. These are typically the neighborhoods with some of the oldest housing stock (late 19th and early 20th century) on small narrow lots. The environmental issues

in these neighborhoods would include: lead in the soil, lead pipes in homes and lots, vacant lots, lack of trees and maintained open space, older industrial centers (both in operation and abandoned), higher concentration of airborne particulates than in other parts of the Metro area, high percentage of impervious surface, combined stormwater/sewer system, flooding due to lack of sewer capacity, and aging infrastructure.

MHC recommends changes to the Land Development Code for Louisville Metro and all other cities in Jefferson County to permit multi-family housing and/or smaller lot sizes -with compatible design- and provide incentives for affordability in targeted areas.

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Subsidized Housing as a Percentage of All Housing Units by Council District in 2010, Louisville Metro





MEASURE 1: Concentration of Subsidized Housing (continued)

Continued from previous page

Louisville Metro Council District	Total Housing Units	Subsidized Housing Units			Total Subsidized Housing Units	Subsidized Housing as percentage of Total Council District Housing
		Public Housing	Section 8 Voucher	Section 8 Project Based		
1	13,653	110	957	474	1,541	11%
2	13,248	25	904	475	1,404	11%
3	11,871	40	811	254	1,105	9%
4	9,175	2,267	821	1,309	4,397	48%
5	11,113	43	827	205	1,075	10%
6	5,429	876	644	1,407	2,927	54%
7	12,156	0	33	0	33	0%
8	13,435	0	67	103	170	1%
9	14,069	30	176	49	255	2%
10	12,542	153	233	28	414	3%
11	12,727	45	240	45	330	3%
12	13,243	0	333	0	333	3%
13	11,334	0	272	147	419	4%
14	11,747	0	191	10	201	2%
15	11,912	325	808	590	1,723	14%
16	14,682	0	17	0	17	0%
17	14,230	34	102	0	136	1%
18	12,967	6	15	184	205	2%
19	18,387	29	54	274	357	2%
20	16,243	0	64	24	88	1%
21	12,450	6	346	240	592	5%
22	17,541	21	149	12	182	1%
23	13,343	12	105	105	222	2%
24	13,403	46	417	0	463	3%
25	13,522	22	214	0	236	2%
26	11,739	22	122	154	298	3%



MEASURE 2: Housing Segregation by Income, Race/Ethnicity, and Gender

For 2010, Louisville Metro continues to see high levels of segregation along economic, racial, and gender lines. Maps showing the concentration of poverty, black or African-American population, and single-parent female-headed households show not only high levels of segregation, but also that they all tend to be concentrated in the same areas of the county; areas that lack diversity and employment. The neighborhoods directly west of the downtown district have the highest concentrations of: poverty, single-parent female-headed households and black or African-American population. The southwestern areas of the county also have relatively high degrees of poverty and single-parent female-headed households.

Note: *The Louisville MSA (Metropolitan Statistical Area) is defined as the 13-county area that makes up the Louisville region. The MSA includes 9 counties in Kentucky and 4 in southern Indiana. Louisville Metro refers only to Jefferson County.*

ECONOMIC STATUS

In 2010, 15.3 percent of individuals in the Louisville MSA were below the poverty threshold (American Community Survey, 2010). Children were much more likely to be in poverty (22.4 percent of all children under age 18). Significantly, 41.4 percent of female-headed families with related children under 18 were below the poverty threshold. In contrast, in married families with children under 18 only 6.7 percent were below the poverty threshold.

Of the little over one-half million households within the Louisville MSA, 38 percent of these households' incomes were below the U.S. Department of Housing and Urban Development's (HUD) low-income or poverty threshold. Within Louisville Metro, the greatest concentration of these households is west of an area roughly bounded by Interstate 65, with the highest concentration in neighborhoods directly west of the downtown district.

RACE/ETHNICITY

Black or African-Americans make up 20.6 percent of Louisville Metro's population, compared to 15 percent in the Louisville MSA as a whole. In Louisville Metro, the black or African-American population is concentrated primarily in two areas of the county: directly west of the downtown district and in the center of the county just east of the airport. When examining the map showing the black or African-American population in Louisville Metro, the concentration is between roughly 50 and 98 percent of the population in these two areas of the county, which indicates high levels of racial segregation. Hispanics make up 4.4 percent of the population of Louisville Metro, compared to 3.9 percent of the population for the Louisville MSA.

In Louisville Metro, Hispanics are primarily concentrated in the south central portion of the county.

In Jefferson County, a comparison of race and population data from the 2010 and 2000 decennial Census finds the white alone population has decreased by one percent point (82.8 percent in 2000), while the black or African-American alone population decreased by two-tenths of a percent (13.9 percent in 2000). The numbers reported as being Hispanic or Latino however has more than tripled during the past decade (16,479 in 2000; 50,255 in 2010).

GENDER

Throughout the Louisville MSA, one-third of all family households with children under 18 are headed by females with no husband present. The median annual income for these families is \$27,154, less than half of that for dual-parent families (at \$56,788). In Louisville Metro, female-headed households make up 35 percent of all households. Their income is also less than half that of dual-parent families, at \$26,947 and \$57,028, respectively. The highest concentration of female-headed households in Louisville Metro is directly west of the downtown district, while they are moderately concentrated throughout the central and southwest portion of the county. For both the Louisville MSA and Jefferson County alone, only 8 percent of all family households with children under 18 are headed by a male with no wife present.

There is a dramatic difference in poverty between genders when comparing these same household types. Within the Louisville MSA, female heads of household, with no husband present, make up 56 percent of all families with children 18 and under, whose incomes are below the poverty level; in Louisville Metro, 59 percent are below the poverty level (this is a 2 percent drop since the 2000 Census). In contrast, 10 percent of all families with children under 18 are headed by males with no wife present in the Louisville MSA have incomes that are below the poverty level; for Louisville Metro it is 8 percent (a 2 percent increase since the 2000 Census).

MHC recommends:

- 1. Make fair housing a priority in this city and metropolitan region in the real estate, development and banking industries.**
- 2. Enact Land Development Code changes focused on the development of design-compatible affordable housing, both rental and ownership in all areas of Louisville Metro.**
- 3. Require fair housing education of all government officials reviewing development proposals.**

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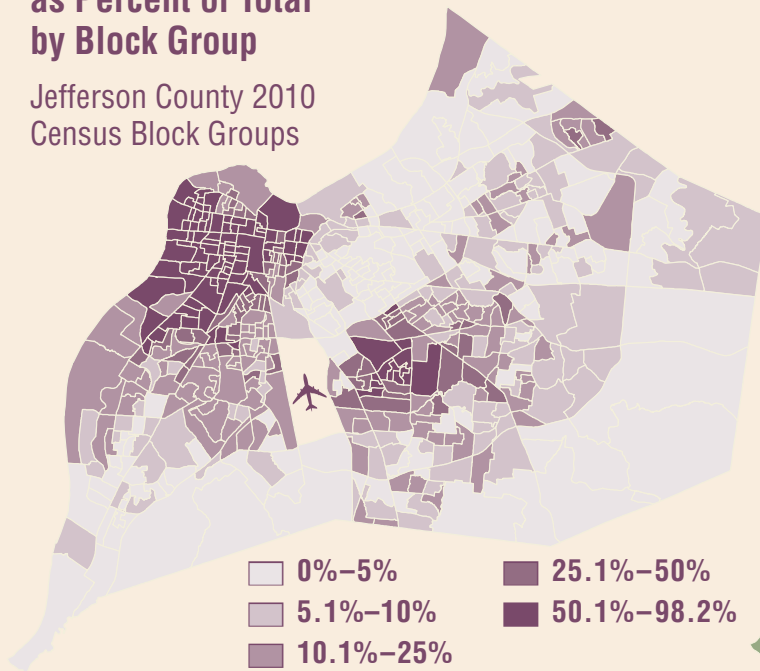


MEASURE 2: Housing Segregation by Income, Race/Ethnicity, and Gender (continued)

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2010 Black or African American Population as Percent of Total by Block Group

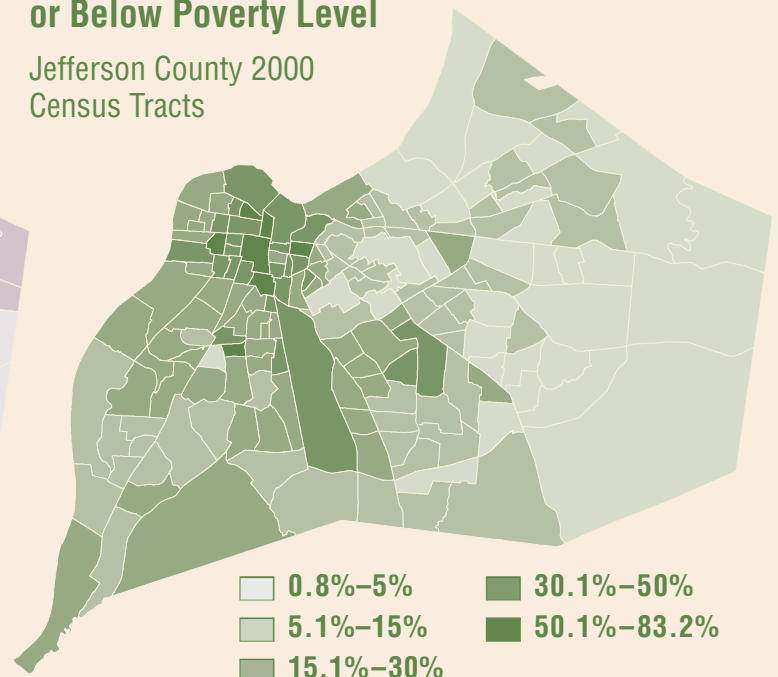
Jefferson County 2010 Census Block Groups



Source: 2010 Census Summary File 1

2005-2009 Estimated Percent of Population at or Below Poverty Level

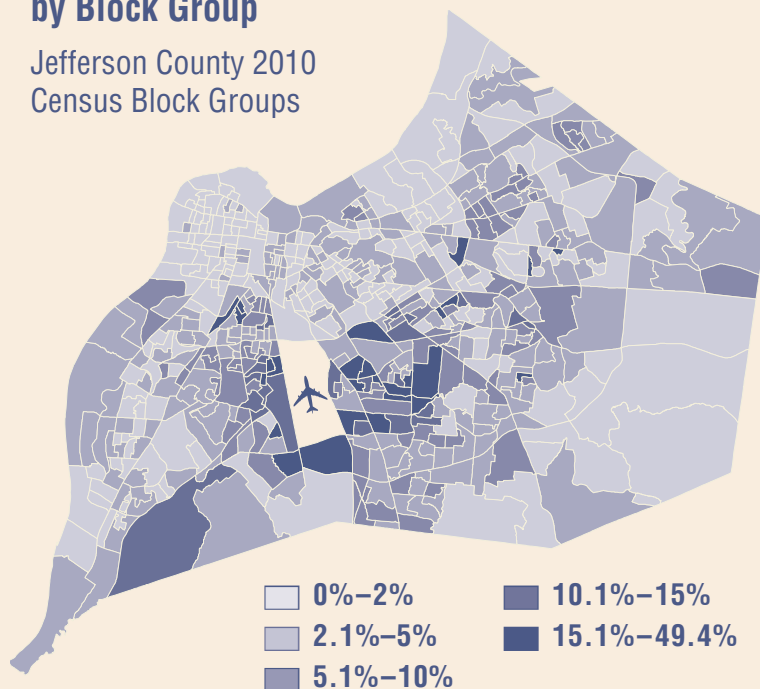
Jefferson County 2000 Census Tracts



Source: 2005–2009 American Community Survey 5-year Estimates

2010 Hispanic Population as Percent of Total by Block Group

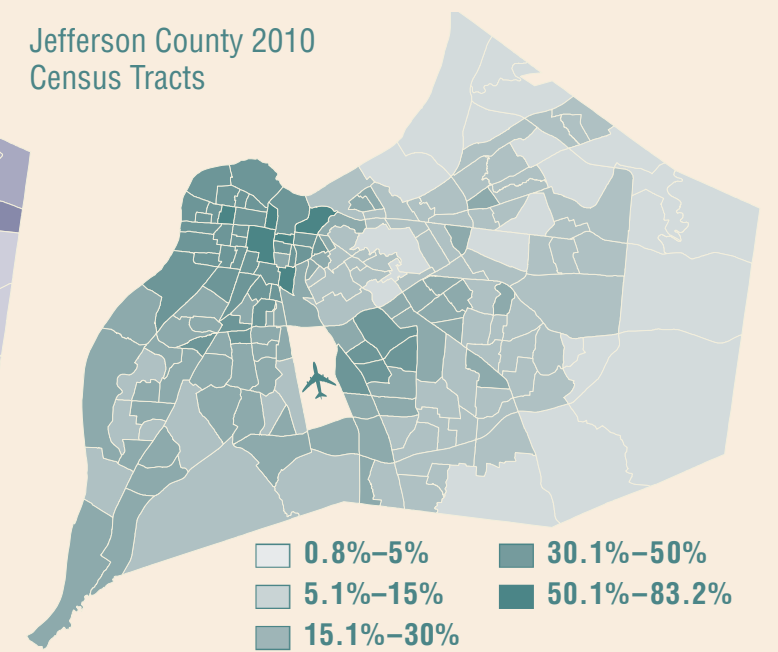
Jefferson County 2010 Census Block Groups



Source: 2010 Census Summary File 1

Female Householder, No Husband Present, with Related Children Under 18 As Percent of All Families with Children Under 18

Jefferson County 2010 Census Tracts



Source: 2010 Census Summary File 1, Table P-39



MEASURE 3: Renters with Excessive Cost Burden

The FY2011 Fair Market Rents (FMR) by Unit Bedrooms established by HUD for the Louisville metropolitan area dipped slightly when compared to the FY2010 rates, yet the FMR for a two-bedroom unit is 5.3 percent higher than the FY2000 rates (adjusted for inflation).

Within the Louisville MSA, renters comprise a little over a third of the total number of households. To afford a two-bedroom unit at FMR, a household would need an annual income of \$27,760. However the estimated median income for renter households is \$27,323; it would take 102 percent of a renter household earning the median income to live in a FMR two-bedroom unit. As a result, nearly half (48 percent) of renter households cannot afford a two-bedroom unit at FMR.

Finding and keeping a job continues to be problematic for many. As of July 2011, the unemployment rate for the Louisville MSA was 9.5 percent. Of the 22 major industry sectors in the Louisville MSA, six of these (comprising 28 percent of the total employment) have median annual incomes that fall below the annual income needed for a household to afford a two-bedroom rental unit at FMR. Most of these low-wage jobs are in the service industry: sales and sales-related jobs; food preparation and jobs related to serving; building

and grounds cleaning, maintenance; and healthcare support and personal care.

The burden placed on low-income renter households goes beyond rent payments. The cost of goods and services has risen 3.6 percent since June 2010 (Isidore, 2011). Gasoline prices are up 36 percent over this time period, as are other essentials such as groceries, home utility costs, and fuel oil (U.S. Bureau of Labor Statistics, 2011). In addition, the burden of health care costs as a percentage of family income is greater for families in the lowest-income quintile (20 percent of family income) than for families in all other quintiles (no more than 16 percent of family income) (Ketschel, P. et al., 2011).

MHC recommends that all economic or housing development projects supported by Louisville Metro government by any financial vehicle must contain the creation or rehabilitation of housing affordable to those at 60 percent of median income. MHC also recommends fully funding the Louisville Affordable Housing Trust Fund.

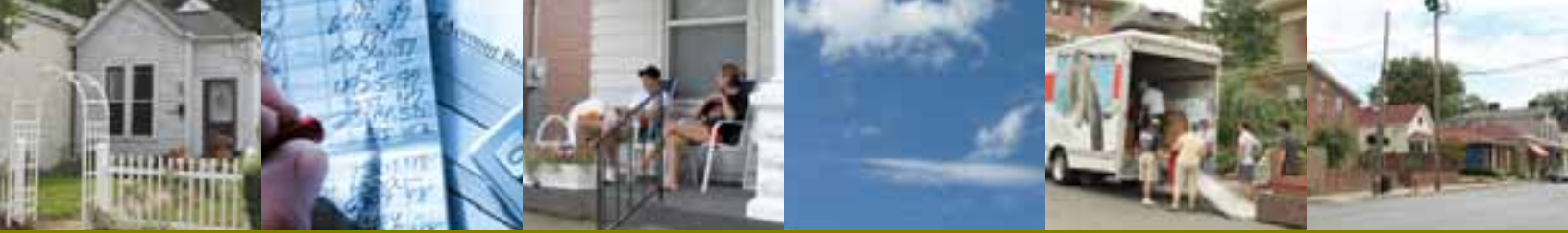
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Fair Market Rents (FMR) by Unit Bedrooms, 2000-2011

FMR Year	Efficiency	One-Bedroom	Two-Bedroom	Three-Bedroom	Four-Bedroom
FY 2000	\$318	\$408	\$501	\$691	\$729
FY 2001	\$323	\$415	\$510	\$703	\$741
FY 2002	\$358	\$460	\$565	\$779	\$821
FY 2003	\$368	\$473	\$581	\$801	\$845
FY 2004	\$369	\$475	\$583	\$804	\$848
FY 2005	\$400	\$466	\$553	\$789	\$826
FY 2006	\$411	\$473	\$563	\$785	\$834
FY 2007	\$426	\$492	\$584	\$816	\$867
FY 2008	\$483	\$559	\$663	\$926	\$984
FY 2009	\$496	\$573	\$680	\$950	\$1,009
FY 2010	\$499	\$577	\$684	\$956	\$1,015
FY 2011	\$506	\$585	\$694	\$970	\$1,030
% Change from FY2010-FY2011*	-2.4%	-2.4%	-2.3%	-2.3%	-2.3%
% Change from FY2000-FY2011*	20.9%	9.0%	5.3%	6.7%	7.4%

*adjusted for inflation

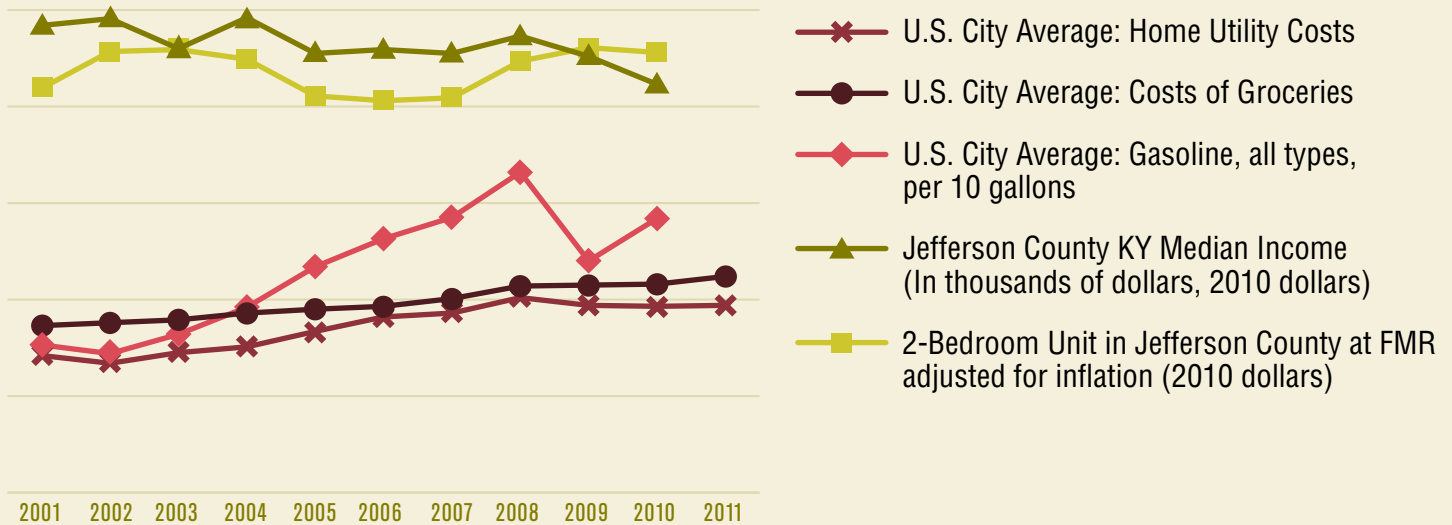
Source: U.S. Department of Housing and Urban Development



MEASURE 3: Renters with Excessive Cost Burden (continued)

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Relative Changes in Basic Costs of Living and Income 2001 – 2011



Note: The graph does not include a vertical axis because each line represents only how that indicator has changed from year-to-year. It compares trends over time to show how indicators have increased or decreased. For example, between 2002 and 2003, Jefferson County FMR stayed the same while Jefferson County median income went down and U.S. average price of gasoline went up.

Source: Bureau of Labor Statistics Consumer Price Index, U.S. Census American FactFinder





MEASURE 4: Production and Rehabilitation of Affordable Housing

In the last year, there has been a notable decrease (6 percent) in the number of affordable housing units in Louisville Metro. In the Indiana and Kentucky counties outside of Jefferson County that comprise the Louisville MSA, there has been an increase of subsidized units (5 percent and 6 percent respectively). However, when looking at the Louisville MSA as a whole, the number of affordable housing units has decreased overall by 3 percent.

In Louisville Metro, public housing units managed by the Louisville Metro Housing Authority (LMHA) dropped from 5,488 in 2010 to 4,825 in 2011; this loss of 663 units represents a 12 percent decrease in the total number of public housing units within the city. The razing of Iroquois Homes public housing units is a contributing factor. Tim Barry, LMHA's Executive Director, asserts that the housing authority is committed to a one-for-one replacement of all razed public housing units, though it may take a while (Barry, 2011).

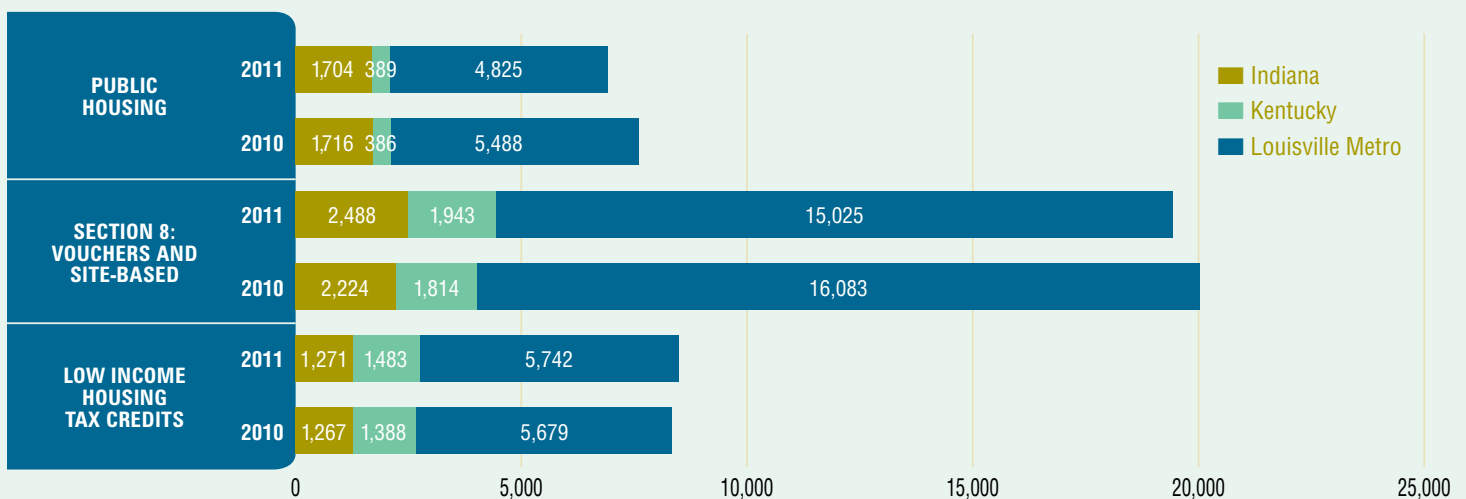
Within the Louisville MSA, but not including Jefferson County, the number of public housing units managed by the Eminence and Shelbyville housing authorities was unchanged (85 and 102 units respectively), yet the total number of units managed by the Bardstown Housing Authority fell from 199 to 192 (a 3.5 percent decrease). In the southern Indiana counties, there was no change from 2010 to 2011 in the number of public housing units in New Albany (1,085). In neighboring Clark County, the number of public housing units decreased from 631 in 2010, to 619 in 2011.

For Section 8, both housing choice vouchers and site-based units, the total number of units in Louisville Metro dropped from 16,083 in 2010 to 15,025 (a loss of 1,058 units). Yet for the other Kentucky and Indiana counties located within the Louisville MSA, there was an increase of 434 units reported (11 percent).

The number of families on both the public housing and Section 8 housing choice voucher (HCV) waiting lists illustrates the urgent need for more affordable housing options in the Louisville area. As of June 2011, there are 4,402 families on LMHA's public housing waiting list and 15,785 families on the HCV waiting list (Louisville Metro Housing Authority [LMHA], 2011). This does not include the 4,257 families who are waiting for available units in Park DuValle and Liberty Green (the combined waiting list for Park DuValle Phases II, III, and VI has been closed since 2002) (LMHA, 2011). Together, these represent 24,394 families in Louisville Metro who are waiting (some for years) for either a public or HCV housing unit to become available. In other Kentucky counties within the MSA, there are 255 families on the Bardstown Housing Authority's public housing waiting list and 50 families on the Section 8 HCV list in Eminence. In southern Indiana, New Albany's housing authority has 100 families on the public housing waiting list while 188 families are waiting for Section 8 HCV. In Clark County, the housing authorities in Charlestown, Jeffersonville, and Sellersburg combined have 341 families on their public housing waiting list and 606 families on their Section 8 HCV waiting lists.

MHC recommends that the Louisville Metro Housing Authority review its policies to ensure that the trend over the last 10 years to decrease the number of family units and units for the disabled while increasing the units for those who are elderly does not violate fair housing laws protecting the households regardless of "familial status."
MHC recommends that the Louisville Metro Housing Authority restore the 5 percent of all Section 8 Voucher funds that have been diverted from serving households and put in the HOPE VI program for moderate-income housing.

Number of Subsidized Rental Units, Louisville MSA by Program Type – Years 2010 and 2011





MEASURE 5: Homeownership Rate

The U.S. Census Bureau reported that in 2010 the homeownership rate in the Louisville MSA dropped to 63.4 percent, the lowest rate in five years. This represents a decrease of 4.3 percent since 2009, and marks the second consecutive year the rate has decreased. The homeownership rate is now 6.9 percent lower than in 2003, when the *State of Metropolitan Housing Report* first began tracking these numbers. While there may be a number of reasons for this decrease, tighter mortgage lending restrictions and persistently high rates of foreclosure (see Measures 6 and 7 in this report) may be contributing factors.

From 2009 to 2010, homeownership rates in the U.S. decreased to a greater degree for black or African-Americans and Hispanics than for whites. Homeownership rates declined 4.2 percent for African-Americans, 3.3 percent for Hispanics, and 0.8 percent for whites, with the overall homeownership rate for the U.S. decreasing 1.3 percent to 66.9 percent (U.S. Census Bureau, 2011).

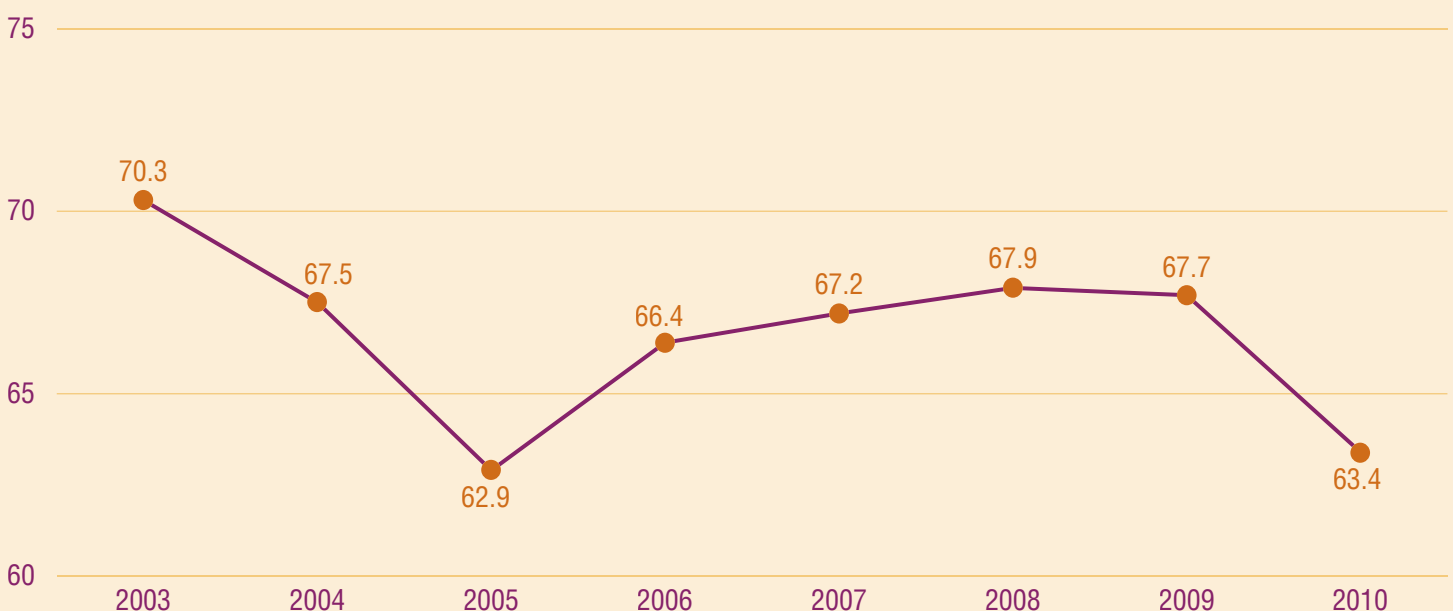
HOMEOWNERSHIP AND WEALTH

While homeownership can be a means of wealth accumulation for households, renting a similar home and putting the savings into non-housing investments can just as often result in the same amount of wealth accumulation (Rappaport, 2010). However,

homeownership is a more important means of wealth accumulation for low-income and minority households. While higher-income households are often able to effectively build wealth through non-housing investments, non-housing wealth accumulation for low-income households is, at best, minor. In addition, many low-income and minority households do not move beyond first-time homeownership, and minorities often return to renting after owning a home and do not “trade up” to higher-priced homes as often as non-minorities (Boehm and Schlottmann, 2008). The housing and foreclosure crisis has also had a disproportionate effect on minority homeowners, as both African-Americans and Hispanics are more likely to lose their home to foreclosure than whites, at 76 percent and 71 percent, respectively (Center for Responsible Lending, 2010).

MHC recommends advocacy to ensure that new provisions for homeownership require responsible lending but do not effectively create an absolute bar to minorities whose wealth has been decimated in the economic turndown. MHC also advocates for programs that focus on raising the value of homes in predominantly minority neighborhoods.

Louisville MSA Homeownership Rate 2003-2010



Source: U.S. Census Bureau



MEASURE 6: Homeownership Access and Affordability

Both access to, and the affordability of, homeownership are difficult to define and measure. In past years of the *State of Metropolitan Housing Report*, an index measuring the affordability of housing for first-time homebuyers in the Louisville community has been included to illustrate both access and affordability. However, the housing landscape in Louisville, and across the country, has changed since the advent of the housing crisis. Homebuyers, first-time or otherwise, face tighter lending restrictions in the form of higher credit score, income, and down payment requirements, which now prevent many households from obtaining mortgages they would have qualified for before the housing market crash (Joint Center for Housing Studies of Harvard University, 2011). Thus, the First-Time Homebuyer Affordability Index no longer captures the whole picture when it comes to accessing and affording homeownership, and so we will not present it in this year's report.

As an alternative, we propose a rethinking of homeownership in terms of "purchase affordability" and "repayment affordability." Purchase affordability refers to the ability of a household to borrow enough funds to be approved for a mortgage and purchase a home. Repayment affordability refers to a household's ability to repay their mortgage by considering the cost-burden of making their monthly mortgage payments (Gan and Hill, 2009). Thus, while lower housing prices, historically-low interest rates, and Federal Housing Administration (FHA) loans that offer 3.5 percent down payments may make homeownership accessible to more households, and more "purchase affordable," they may not have the ability to repay their mortgage. Other costs of living such as home maintenance, home

energy costs (see the *2008 State of Metropolitan Housing Report*), gasoline and transportation costs (see the *2007 State of Metropolitan Housing Report*), food prices, and healthcare costs all impact the percentage of income that a household can dedicate to a mortgage payment.

Fannie Mae, Freddie Mac, and FHA either owned or guaranteed roughly 90 percent of all single-family mortgages in 2010 (Joint Center for Housing Studies of Harvard University, 2011). FHA is now the primary lender to the affordable housing market, or households providing less than a 20 percent down payment. The table below illustrates the differences in monthly payments for households purchasing the home with different down payments. Due to the resulting higher loan amount, the monthly payment is roughly 20 percent higher for the FHA borrower, and their income must be nearly 20 percent higher, as well. In addition, private mortgage insurance (PMI) must also be obtained when a home is purchased with a down payment of less than 20 percent, which is an additional monthly cost for the homeowner, although this protects the lender and not the borrower in the event of a mortgage loan default.

MHC advocates for a package of services to make homeownership purchase and repayment affordable. This should include reduced insurance costs for those who pass substantial homeownership counseling programs, modified Section 8 Voucher for homeownership programs and Individual Development Account matched savings plans.

Mortgage Loan Scenario Comparison

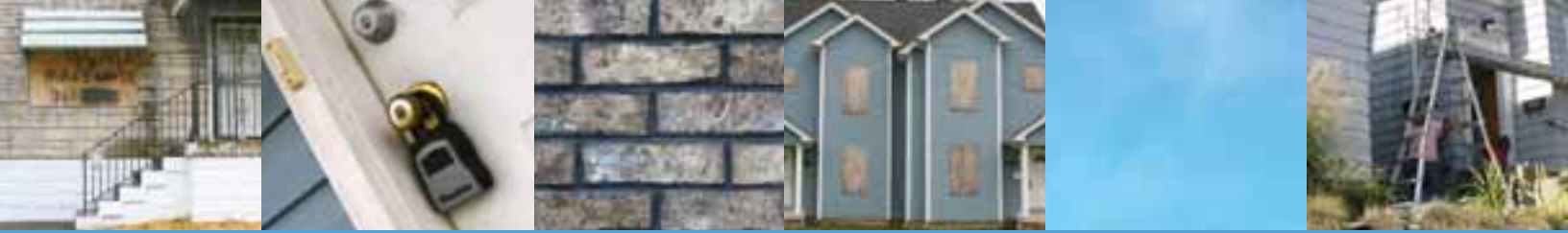
Conventional Loan

	Louisville Median House Sale Price	Starter Home Price (15% lower than median)	20% downpayment	Loan Amount	Effective Interest Rate	Monthly payment	First-time Median Income (30% less than median)	Qualifying Income
2010	\$137,750	\$117,087.50	\$23,417.50	\$93,670.00	0.0489	\$496.56	\$39,751.00	\$23,835.00

FHA Loan

	Louisville Median House Sale Price	Starter Home Price (15% lower than median)	3.5% downpayment	Loan Amount	Effective Interest Rate	Interest Rate plus PMI Rate	Monthly payment	First-time Median Income (30% less than median)	Qualifying Income
2010	\$137,750	\$117,087.50	\$4,098.06	\$112,989.44	0.0489	0.0514	\$616.26	\$39,751.00	\$29,580.29

Source: U.S. Census Bureau, Kentucky Association of Realtors



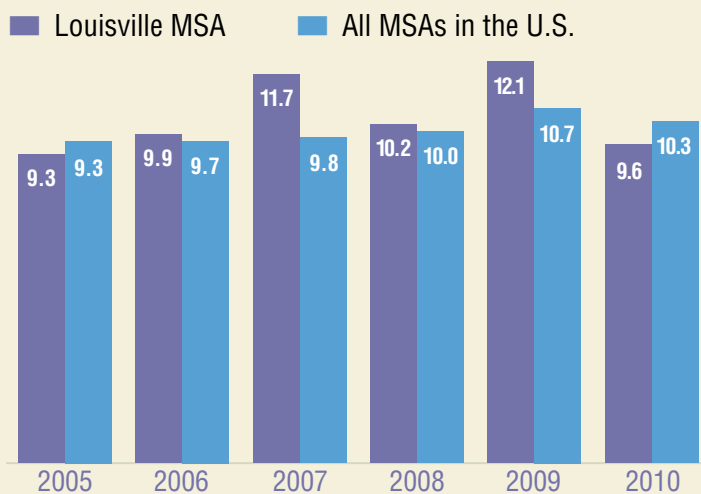
MEASURE 7: Foreclosures

During 2010, the U.S. saw a total of 3,825,637 foreclosure filings on a record 2,871,891 properties. While this represents a decrease of 3 percent in the number of filings from 2009, it represents an increase of 2 percent in the number of properties receiving a foreclosure filing from the previous year. In 2010, 2.23 percent of all housing units (1 in 45) received at least one foreclosure filing, virtually unchanged from 2009 (RealtyTrac, 2011).

The Louisville MSA saw a total of 8,361 foreclosures in 2010, which represents an increase of 17 percent from 2009 and a 254 percent increase from 2002. In the Kentucky MSA counties (comprised of Louisville Metro and the adjacent counties in Kentucky) there were a total of 6,817 foreclosures ordered for sale, an increase of 15 percent from the previous year's total. While foreclosure numbers were higher for every county in 2010 than in 2002 (except for Meade County), about half of the MSA Kentucky counties saw decreases in the number of foreclosures from the previous year. Jefferson and Nelson counties saw the greatest increases in 2010 at 21 percent and 22 percent, respectively. The greatest decreases were in Meade (19 percent) and Spencer (32 percent) counties, with Meade County's numbers dropping to their lowest total since 2002, when the *State of Metropolitan Housing Report* began tracking foreclosures.

The Indiana counties in the Louisville MSA saw a total of 1,544 foreclosure filings in 2010, representing an increase of 29 percent from 2009, and 85 percent over 2002. Each of the four MSA counties in Indiana saw a decrease in the number of foreclosure filings for 2009, indicating that the rate of foreclosures is levelling off, but totals are still higher than they were earlier in the decade. Harrison, Clark, and Washington counties all saw increased filings

Rental Unit Vacancy Rates 2005-2010



Source: U.S. Census Bureau

from 2009, while Floyd County saw a 5 percent decrease.

The Network Center for Community Change (2011) in Louisville investigated the impact of private collection of delinquent property taxes in Louisville Metro and found that in 2010 over 15,000 property owners did not pay taxes owed by April 15; about a third of those delinquencies were purchased by private parties for collection. This resulted in about 5,000 properties having a private lien complicating the title of the property. In addition, there were 187 foreclosures filed due to delinquent property taxes.

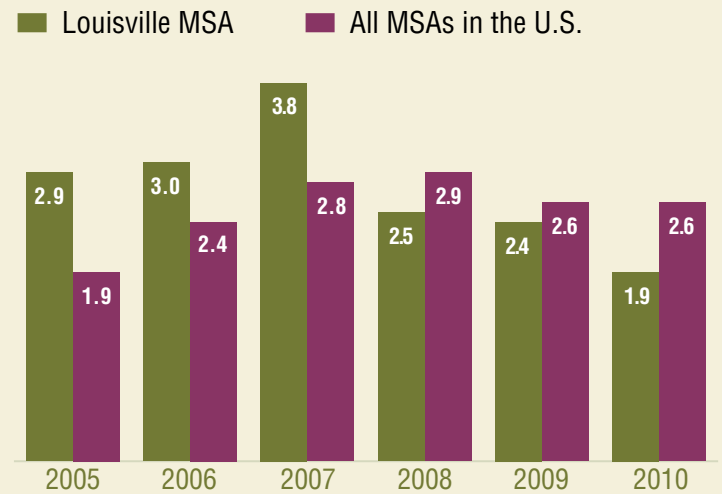
HOUSING VACANCY RATES

In 2010, homeowner vacancy rates for the Louisville MSA dropped to 1.9 percent from 2.4 percent the previous year. When compared to the vacancy rate for all MSA's as a whole, the rate for the Louisville area has remained below that of the rate of 2.6 percent for all MSA's in the U.S. since 2008.

The Louisville MSA's vacancy rate for rental units also decreased in 2010 to 9.6, a 2.5 percentage point drop from 12.1 percent in 2009. This represents a shift relative to the rental vacancy rates for all of the MSA's in the U.S., as Louisville's rate was above the U.S. MSA rate of 10.7 in 2009, but is now below the 2010 U.S. MSA rate of 10.3.

MHC recommends local control of collection of delinquent property taxes to ensure fair and equal treatment, community education of the "homestead exemption" for the elderly and disabled, allow work-outs and retain local tax income in local control.

Homeowner Vacancy Rates 2005-2010



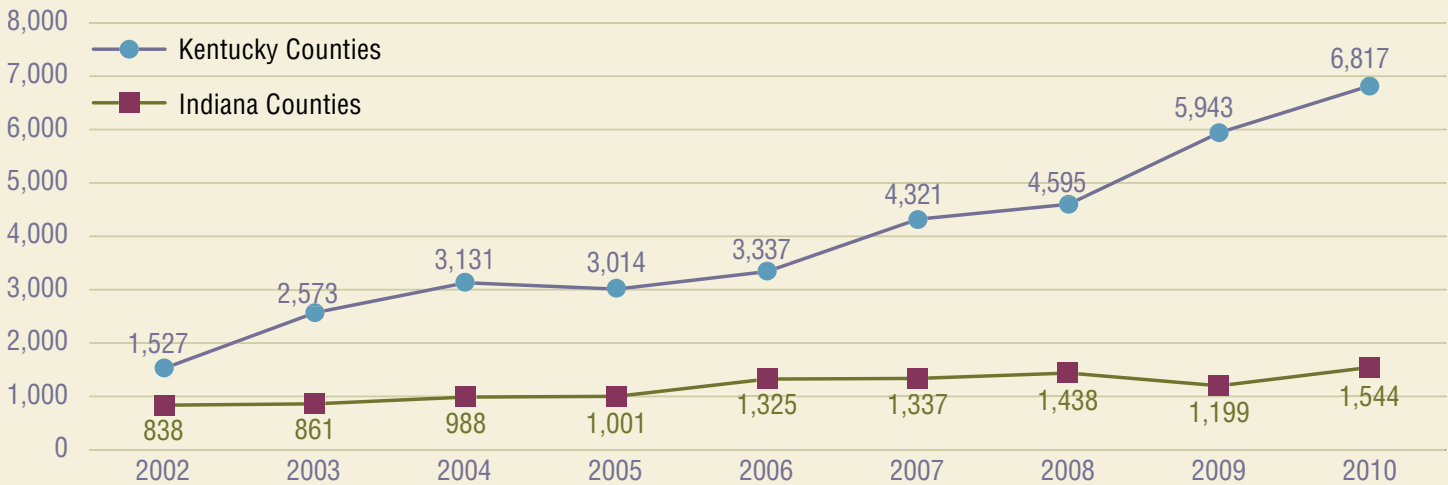
Source: U.S. Census Bureau



MEASURE 7: Foreclosures (continued)

Number of Foreclosures 2002-2010

Louisville MSA Counties



Source: U.S. Census Bureau

Kentucky Counties in the Louisville MSA

County	2002	2003	2004	2005	2006	2007	2008	2009	2010	% Change from 2009 to 2010	% Change from 2002 to 2010
Bullitt	104	171	N/A	250	300	450	450	490	450	-8%	333%
Jefferson	1,262	2,161	2,610	2,508	2,710	3,089	3,264	4,382	5,299	21%	320%
Oldham	71	89	105	112	127	140	223	300	298	-1%	320%
Henry/Trimble	N/A	N/A	116	81	108	120	158	114	128	12%	10%
Nelson	N/A	N/A	125	125	156	178	162	194	236	22%	89%
Shelby	N/A	80	83	86	101	134	140	223	228	2%	185%
Spencer	N/A	N/A	N/A	30	46	76	78	115	93	-19%	210%
Meade	90	72	92	102	89	134	120	125	85	-32%	-6%
Total	1,527	2,573	3,131	3,014	3,337	4,321	4,595	5,943	6,817	15%	346%

Indiana Counties in the Louisville MSA

County	2002	2003	2004	2005	2006	2007	2008	2009	2010	% Change from 2009 to 2010	% Change from 2002 to 2010
Clark	369	385	429	455	621	655	642	509	750	47%	103%
Floyd	253	212	323	304	379	341	424	395	375	-5%	48%
Harrison	112	141	117	152	159	155	198	138	211	53%	88%
Washington	102	123	119	90	166	186	174	157	208	32%	104%
Total	836	861	988	1001	1,325	1,337	1,438	1,199	1,544	29%	85%

*The terms *filed* and *ordered* represent different stages of the foreclosure process. *Filed* refers to the filing of a property with the local County Recorder's office to say that a loan is delinquent, while *ordered* refers to the order to sell a property that is delinquent on a loan.



MEASURE 8: Homelessness

Between January 1 and December 31, 2010 a total of 10,653 unduplicated persons accessed homeless services within the Louisville MSA (Coalition for the Homeless, 2011; Haven House, 2011). This is a slight drop from the 2009 total of 10,927 persons and the 2008 total of 10,912. Of the 2010 total, 9,130 accessed services in Louisville Metro and 1,523 accessed services in Jeffersonville, Indiana. These totals include individuals in emergency shelters, transitional housing facilities, domestic violence shelters, and service facilities with no overnight shelter. It does not include those individuals who reside in treatment centers, permanent supportive housing units, or institutions, although individuals in these settings are at high-risk for returning to homelessness. The numbers reported here should be considered a conservative estimate of the number of homeless persons in the Louisville area, as they only include those individuals or families that chose or were able to access shelters and other supportive services in the area.

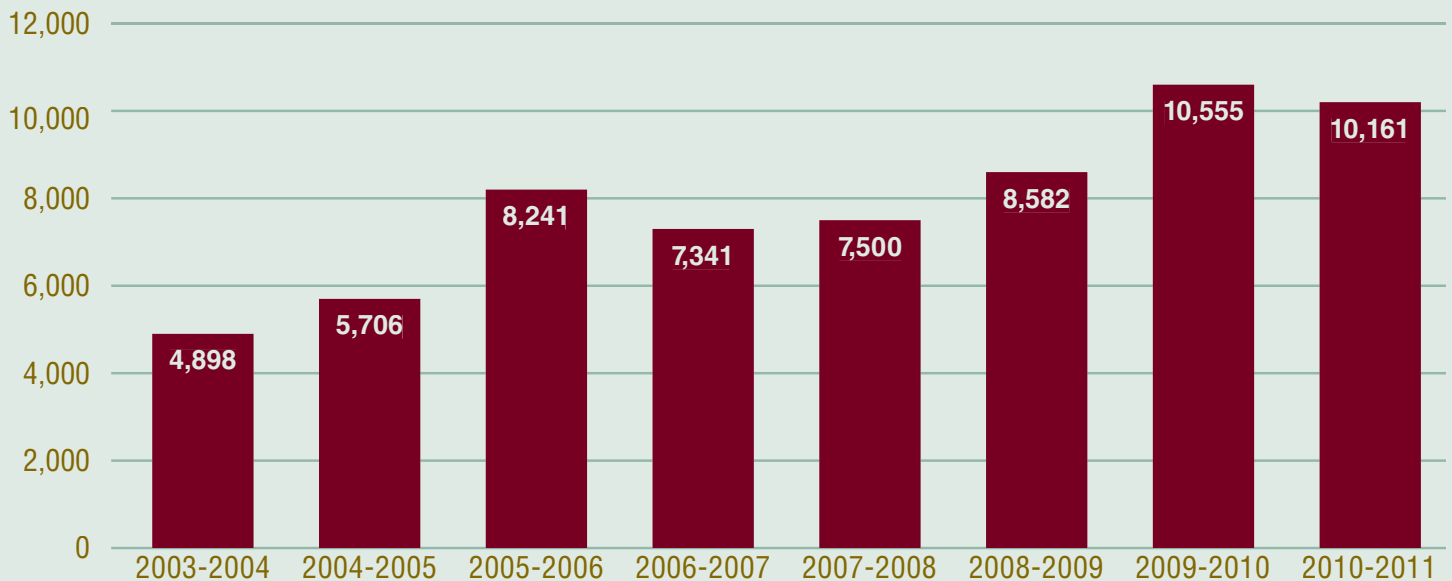


HOMELESS STUDENTS IN PUBLIC SCHOOLS

During the 2010-2011 school year there were 10,161 homeless students enrolled in the Jefferson County Public School (JCPS) System (JCPS, 2011). While this number is a decrease from the 2009-2010 school year total of 10,555 students, it represents 9.6 percent of total enrollment being homeless at some point during the school year. JCPS has seen the number of homeless students more than double since the 2003-2004 school year.

MHC advocates for aggressive policies that produce affordable housing for low-income families to make stable housing for children a priority. This includes revisions to the Land Development Code to allow diverse housing types everywhere, focus of funds for family units, reuse of vacant properties, commitment by the Louisville Metro Housing Authority to bring back housing for families and funding the Louisville Affordable Housing Trust Fund.

Homeless Students Attending JCPS (pre-K-12)



Source: Jefferson County Public Schools



MEASURE 9: CDBG and HOME Funds

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

The Community Development Block Grant (CDBG) program is administered by the U.S. Department of Housing and Urban Development (HUD) to provide funding to state and local governments to target a variety of community development initiatives, including the rehabilitation of affordable housing, improvement of public facilities, job growth, and economic development. The amount of funding each local or state government receives is calculated based on the area's poverty, population, housing overcrowding, age of housing, and population growth lag in relationship to other metropolitan areas. Louisville Metro and New Albany, Indiana are "entitlement" communities, receiving CDBG funding annually. States also receive CDBG funds, which they distribute among entitlement and non-entitlement communities at their discretion.

For program year 2010, Louisville Metro spent a total of \$14,289,260 on CDBG programs, slightly less than the total in 2009 of \$14,657,811. Nearly a third of these funds (31 percent) were dedicated to housing programs such as residential repairs, emergency repairs, and weatherization. Eighteen percent was spent on public services, including improvements to streets, sidewalks, libraries, and parks. Other resources were dedicated to addressing vacant properties and maintenance, including the vacant lot program (9 percent), code enforcement (5 percent), and property demolition (4 percent). In addition, 4 percent was spent on economic development activities and 18 percent on administration and planning (Louisville Metro Department of Community Services and Revitalization, 2011).

The program year 2010 CDBG expenditures for New Albany, Indiana, totaled \$394,204. Of this, 81 percent was allocated to housing programs such as rehabilitation, homeownership assistance, code enforcement, optional relocation, and property demolition and acquisition. The remaining 19 percent was allocated to public service programs.

HOME FUNDS

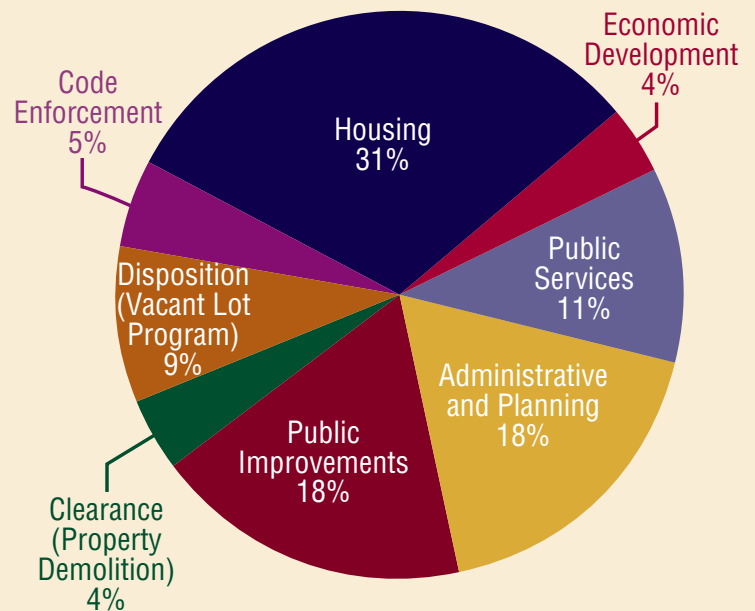
Louisville Metro receives federal funding annually from HUD's HOME Investment Partnerships Program, which exclusively funds the purchase, construction, or rehabilitation of affordable housing for either rental or homeownership for low-income individuals and families. For program year 2010, Louisville spent \$5,244,002

in HOME funds, which funded homebuyer assistance and rental programs, as well as new affordable housing construction. This total amount spent is substantially less than the total spent in 2009 of \$9,732,765, although this number represents money spent that was carried over from previous funding years. Although New Albany, Indiana receives federal CDBG funding as an entitlement community, it does not receive HOME program funding.

CDBG-funded programs in Louisville Metro resulted in the rehabilitation of 644 homes and 7 rental developments, as well as 7,490 persons receiving education and counseling services and 79 persons receiving down payment assistance. In addition, HOME funds produced 32 new housing units in Louisville. Overall, about 23 percent of expected CDBG funds and 73 percent of HOME funds received were allocated toward programs focused on housing affordability during program year 2010 (Louisville Metro Department of Community Services and Revitalization, 2011).

MHC advocates that funds not be used for rental payments, but for creating affordable housing or for energy efficient rehabilitation of existing rental or home owner units in low-income neighborhoods.

Louisville Metro CDBG Expenditures 2010



Source: Louisville Metro Department of Community Services and Revitalization



DATA SOURCES

Measure 1: Concentration of Subsidized Housing *pg. 10*

Statistics on subsidized housing by Metro Council district were obtained by geocoding administrative data by street address and then capturing the data for each district. Subsidized housing units data were provided by the Louisville Metro Housing Authority and the Kentucky Housing Corporation. The Metro Council Districts layer and the Address Sites layer were provided by LOJIC (Louisville/Jefferson County Information Consortium).

Measure 2: Housing Segregation *pg. 12*

The percentages of Black or African-American Alone, Hispanics, and Female Headed Households with Children Under 18 are calculated from 2010 Census Summary File 1 data. The poverty data were drawn from the 2005-2009 American Community Survey 5-year estimates.

Measure 3: Renters with Excessive Cost Burdens *pg. 14*

Annual income data were obtained from the Bureau of Labor Statistics Occupational Employment Survey and dollars were adjusted for inflation using the Bureau's inflation calculator. Fair Market Rent data were gathered from the U.S. Department of Housing and Urban Development (HUD), and household population data was retrieved from the 2010 American Community Survey 1-Year Estimates.

Measure 4: Production and Rehabilitation of Affordable Housing *pg. 16*

Subsidy data were obtained from the Louisville Metro Housing Authority; Kentucky Housing Corporation; from Kentucky housing authorities in Bardstown, Eminence, and Shelbyville; from Indiana housing authorities in New Albany, Jeffersonville, Charlestown, and Sellersburg; Community Action of Southern Indiana (CASI); Hoosier Uplands, and HUD. Section 8 and public housing numbers refer to units allocated by HUD; LIHTC numbers refer to units in service.

Measure 5: Homeownership Rate *pg. 17*

Owner and renter occupant status data were obtained from the 2010 Census Summary File 3 and the U.S. Census Bureau's Annual Statistics on Housing Vacancies and Homeownership. The definition of the Louisville Metropolitan Statistical Area (MSA) changed between 2000 and 2007; however, we report 2000 data for the same counties as those included in the 2003 definition of the Louisville MSA.

Measure 6: Homeownership Access and Affordability *pg. 18*

House price data for the Louisville region were obtained from the National Association of Realtors, Kentucky Association of Realtors, and the Greater Louisville Association of Realtors. Median family income data were from the U.S. Census Bureau 2010 American Community Survey. The mortgage comparison chart for the Louisville MSA was calculated based on the following assumptions: median purchase prices for first-time home buyers are about 15 percent lower than the median for all houses sold; first-time home buyers make a 20 percent down payment for a conventional mortgage loan; first-time home buyers make a 3.5 percent down payment for a FHA mortgage loan and consequently must pay for mortgage insurance, which increases the cost of financing; and first-time home-buyer incomes are about 30 percent lower than median household incomes.

Measure 7: Foreclosures *pg. 19*

Court records regarding foreclosure data are maintained differently in the two jurisdictions of the Louisville MSA. Therefore, for all Kentucky counties in the Louisville MSA, we have defined the rate to be the number of actual foreclosures (or orders of sale) as a percentage of the number of owner-occupied homes with mortgages. The foreclosure rates for Indiana counties in the MSA reflect the number of foreclosures filed as a percentage of the number of owner-occupied homes with mortgages for all Indiana counties in the MSA. The number of foreclosures were obtained from the relevant court clerks in each county. Housing vacancy data was retrieved from HUD.

Measure 8: Homelessness *pg. 21*

Shelter usage data were provided by the Coalition for the Homeless for the Kentucky counties and Haven House for the Indiana counties. Homeless student statistics were provided by Anne Malone and Dena Dossett at Jefferson County Public Schools.

Measure 9: CDBG and HOME Funds *pg. 22*

Data were obtained from Louisville Metro Housing Authority and the New Albany Economic and Redevelopment Department.



DEFINITIONS

Affordable Housing

As defined by HUD, housing is affordable when a low-income family pays no more than 30 percent of its income for housing and utilities combined.

Black or African-American

Black or African-American, as defined by the U.S. Census Bureau, is "... a person having origins in any of the Black racial groups of Africa. It includes people who indicate their race as "Black, African Am., or Negro," or provide written entries such as African American, Afro American, Kenyan, Nigerian, or Haitian."

CDBG

The Community Development Block Grant program (CDBG) is a federal program aimed at creating prosperous communities by providing funds to improve housing, the living environment, and economic opportunities, principally for persons with low- to moderate-incomes. The CDBG program was established in 1974. At least 70 percent of the CDBG funds received by a jurisdiction must be spent to benefit people with low- and moderate-incomes. The remaining 30 percent can be used to aid in the prevention or elimination of slums and blight—often used by local government officials to justify downtown beautification—or to meet an urgent need such as earthquake, flood, or hurricane relief. Both Louisville Metro and the City of New Albany are entitlement cities eligible for CDBG funds.

Emergency Shelter

Emergency shelter is basic, overnight accommodation provided for persons and families. The shelter is generally for one night only, and provides a cot for sleeping and perhaps a meal. Shelters typically provide service referrals to clients.

Fair Market Rent (FMR)

FMR sets limits on Section 8 rents for qualifying families and households that either receive assistance through vouchers or through site-based units to rents below 40 percent of all rents in a housing market. Voucher program households receive a subsidy equal to the difference between the FMR and 30 percent of their monthly incomes. For site-based units, gross rents cannot exceed the FMR and the qualifying families or households receive a subsidy equal to the difference between the gross rent and 30 percent of their incomes. Utility allowances are included with a rent subsidy when factoring a program participant's 30 percent of income (U.S. Department of Housing and Urban Development, 2009).

Family Household (Family)

For statistical purposes, a family consists of a householder and one or more people living in the same household who is related by birth, marriage, or adoption. Each person living in the same house that is related is considered to be part of the same family. If there is a person (or persons) living in a family household that is not related to the householder, that person (or persons) is not included in the family household census tabulations.

Gross Rent

Gross rent, as defined by the U.S. Census Bureau, is "... the sum of contract rent, utilities (electricity, gas, and water), and fuels, (oil, coal, kerosene, wood, etc.) [and] as a percentage of household income, is a computed ratio of monthly gross rent to monthly household income." Excluded in these totals are units for which no cash rent is paid and units occupied by households that report no income or net loss.

HOME Program

The largest federal block grant to state and local governments, the HOME Program is designed exclusively to create affordable housing for low-income households. Fifteen percent of HOME funds must be used for projects sponsored, owned, or developed by Community Housing Development Organizations (CHDOs). Participating jurisdictions may allocate more funds for CHDOs, but 15 percent is the minimum amount.

Participating jurisdictions may use HOME funds to provide home purchase or rehabilitation financing assistance to eligible homeowners and new homebuyers; build or rehabilitate housing for rent or ownership; acquire or improve housing sites; demolish dilapidated housing to make way for HOME-assisted development; and pay relocation expenses. HOME funds can also support tenant-based rental assistance for up to two years.

Householder

As defined by the U.S. Census Bureau, a householder is "the person, or one of the people, in whose name the home is owned, being bought, or rented." If that person is not present, than any household member, age 15 and over, is considered the householder for census purposes.

HUD

The United States Department of Housing and Urban Development is the cabinet-level department of federal government whose mission

■ Continued on next page



DEFINITIONS (continued)

■ *Continued from previous page*

is to ensure “a decent, safe, and sanitary home and suitable living environment for every American.” HUD allocates federal funds for housing to states and local governments and public housing authorities.

Low Income

HUD defines low income as those families whose annual incomes do not exceed 80 percent of metropolitan area median family income. This figure is adjusted for the size of the family.

Low Income Housing Tax Credit

Created by the Tax Reform Act of 1986, the Low Income Housing Tax Credit (LIHTC) has assisted in the production of more than one million affordable homes for low-income renters, by providing investors in eligible affordable housing developments with a dollar-for-dollar reduction in their federal tax liability. Developers, including nonprofit community-based organizations, typically do not have sufficient tax liability to use the tax credits, so they sell the credits to corporations. Corporations purchase 98 percent of all housing credits, as tax code rules effectively prevent individuals from investing. Developers then use the cash they receive from the corporations to finance the affordable housing. The Credit accounts for most new affordable apartment production and drives up to 40 percent of all multi-family apartment development. There is some overlap between LIHTC and Section 8. For this reason, LIHTC units are presented separately from units subsidized by the other programs.

Median Income

Median income is the midpoint of the income distribution; 50 percent of families are above the median and 50 percent are below the median.

Moderate Income

HUD defines those of moderate income as having income greater than 80 percent up to 120 percent of area median income.

Poverty Threshold

The U.S. Department of Health and Human Services defines the poverty threshold and, except for adjustments for household composition, it is the same across the 48 contiguous states. The original poverty thresholds were developed in the early 1960s and they have been revised annually by the Consumer Price Index since then. Poverty thresholds are significantly lower than the low-income thresholds defined by HUD.

Public Housing

The public housing program is the nation’s oldest effort to provide decent and affordable housing for families, elderly persons, and people with disabilities who have very low incomes. Public housing was created in the 1937 Housing Act, and is owned and operated by public housing agencies (PHAs) that are chartered by the states in which they operate and governed by locally appointed or elected Boards of Commissioners.

Section 8

Also called Housing Choice Vouchers, Section 8 is federal tenant-based rental assistance. It works two ways. One is by providing certificates and vouchers, each with different rental payment formulas. Housing vouchers are one of the major federal programs intended to bridge the gap between the cost of housing and the incomes of low-wage earners and people on limited fixed-incomes. The Housing Choice Voucher program provides flexibility and options by issuing vouchers to eligible households to help them pay the rent on privately-owned units. Project-based Section 8 provides a housing subsidy directly to the leasing agent of buildings that are designated as Section 8 properties.

Subsidized Housing

The term subsidized housing refers to houses and multi-family dwellings (generally apartments) that receive some federal funding either in their construction, or in the form of assistance to families renting the units.





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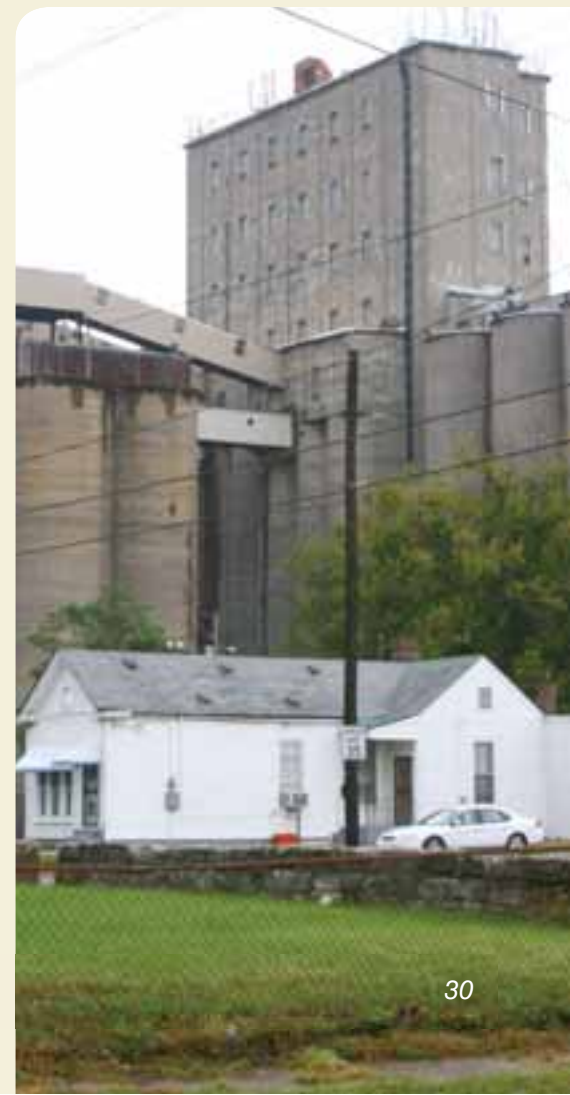
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