



The Implications of the Region's Aging Housing Stock

The **INSTITUTE** for
Public Policy & Economic Development
at Wilkes University

A collaboration among Geisinger Commonwealth School of Medicine, Johnson College, Keystone College, King's College, Lackawanna College, Luzerne County Community College, Marywood University, Misericordia University, Penn State Scranton, Penn State Wilkes-Barre, The Wright Center for Graduate Medical Education, University of Scranton & Wilkes University

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The Institute is a non-profit research organization dedicated to empowering business and community leaders with researched based strategies for informed decision making.

We conduct independent, empirical research to identify the opportunities, issues and challenges unique to the region and find innovative ways to solve the problems facing our communities.

The Institute offers a wide array of research, consulting and support services to help organizations boost productivity, increase profitability and be successful in their missions.

Introduction

This report was prepared to help municipal and county officials, community development practitioners, others in the nonprofit and social assistance sector, and the housing and real estate industry better understand the implications of the age and condition of the physical housing stock in Lackawanna and Luzerne Counties.

The region's housing stock is older compared with the Commonwealth as a whole and the United States. Nearly half of the region's housing was built prior to 1950, compared to just over a third statewide and less than a fifth nationwide. The purpose of this report is to explore the implications of these statistics on areas including health, family economic security, accessibility and aging in place, and community blight. This report also explores policy implications and puts forth a menu of solutions to mitigate the issues identified.

Research Methods

Data on local and county level housing characteristics were gathered from the U.S. Census Bureau American Community Survey 5-year estimates. Data in the regional housing profile is presented as reported by the source, and in some cases additional analysis was completed by The Institute.

In the Community-Level Impacts section, census tract level data was mapped using GIS software. As part of that analysis, in order to attempt to identify communities most at risk for negative health or community impacts, a weighted score was calculated for each census tract that considered age of housing stock as well as housing cost burden (both owner- and renter-occupied) and overall poverty. For each of the four components in the calculation of the scores, each tract was assigned its rank among all census tracts in the region on a percentile basis. The final score is a weighted average of the four and can range from 0 to 100, with higher scores indicating higher risk or concern due to older housing or related social factors. Sixty percent of the weighted average is comprised of housing stock age (percent of homes built before 1940), 15 percent is comprised of cost burden for owner-occupied housing (ratio of monthly homeowner costs to median household income), another 15 percent is comprised of cost burden for renter-occupied housing (ratio of gross rent to median household income), and the final ten percent is comprised of the overall poverty rate.

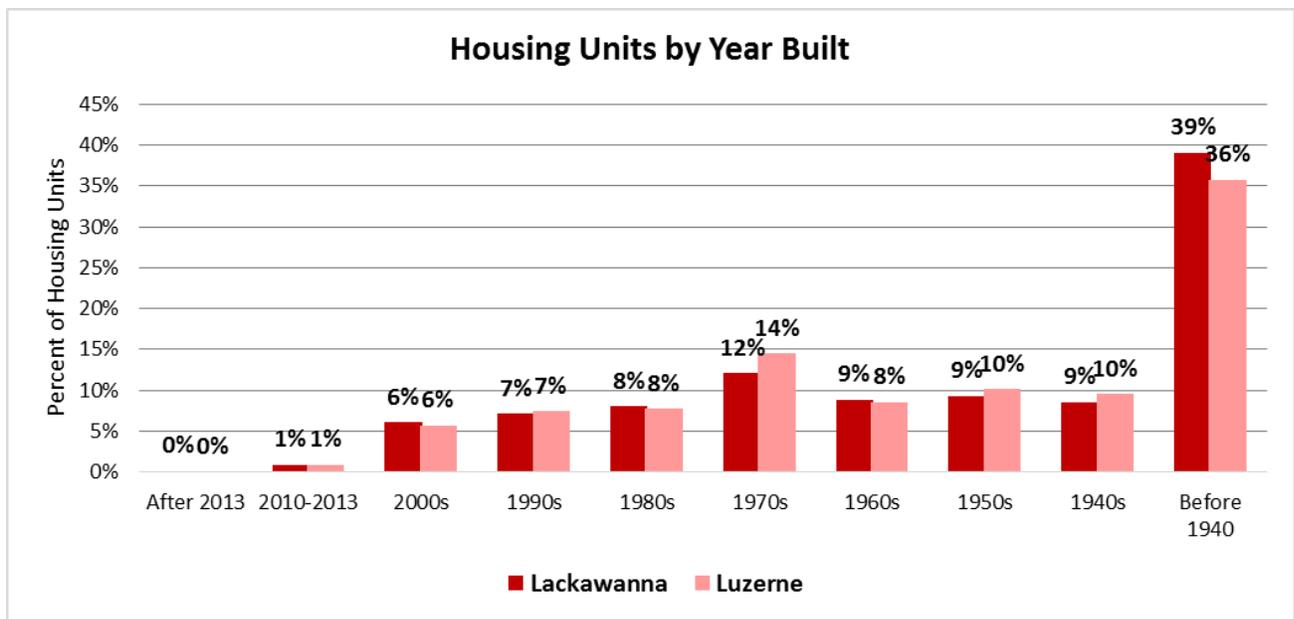
Regional Housing Profile

The data that follows describes regional housing characteristics with a focus on physical housing stock. Housing data is sourced from the U.S. Census Bureau’s American Community Survey 5-year estimates, and reflects the time period from 2012 to 2016 unless otherwise noted.

Housing Characteristics

There are an estimated 245,603 housing units (including renter-occupied, owner-occupied, and vacant units) in the two county region. Of these, about 40 percent are within Lackawanna County and 60 percent are in Luzerne County.

The region’s housing supply is generally made up of older stock. Nearly four in ten homes built in Lackawanna County were built before 1940, and this share is only slightly lower in Luzerne County, at 36 percent.



The region’s housing stock is older compared with the Commonwealth as a whole and the United States. Nearly half of the region’s housing was built prior to 1950, compared to just over a third statewide and less than a fifth nationwide.

The table below also includes comparative statistics on several other housing parameters. The median home value in Lackawanna and Luzerne Counties, among owner-occupied homes, is lower than the statewide and nationwide median.

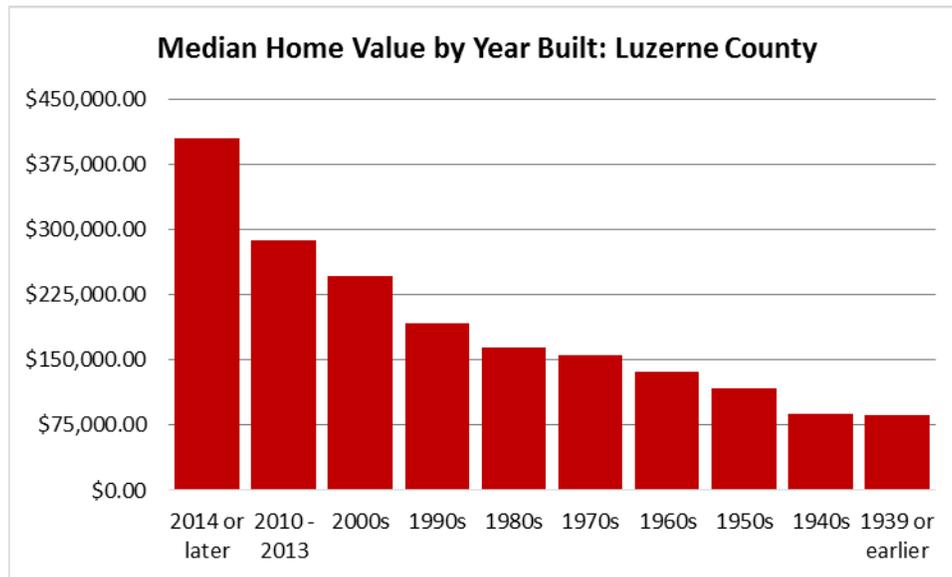
The size of homes is slightly higher in Pennsylvania and the region compared to the United States, which has a lower median number of rooms and a slightly smaller share of homes with three or more bedrooms. Pennsylvania and the region also have a higher share of owner-occupied homes than the United States.

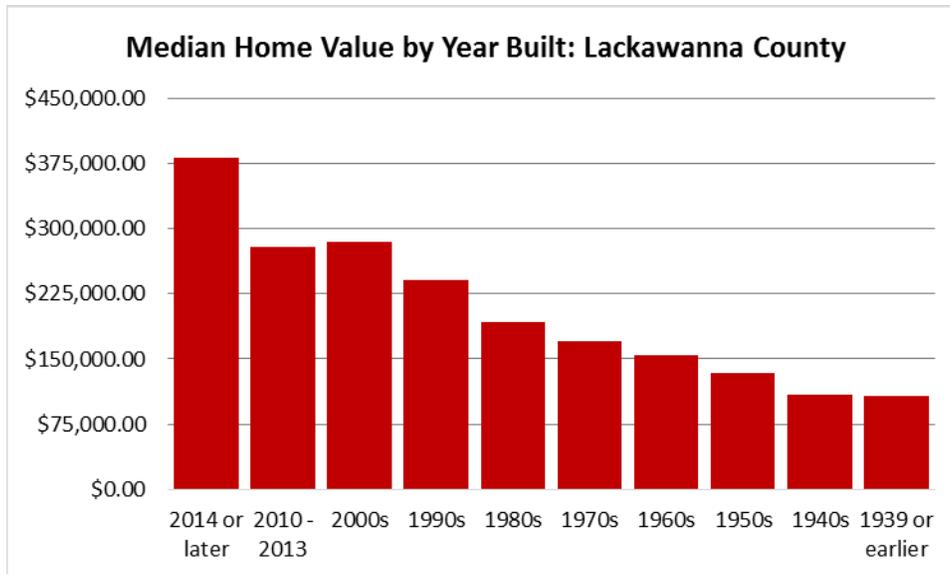
The housing vacancy rate is slightly higher regionally, at 12.6 percent in Lackawanna County and 13.9 percent in Luzerne, compared with 11.3 percent statewide and 12.2 percent nationally.

Selected Housing Statistics: 2012-2016				
	Lackawanna	Luzerne	PA	US
Total housing units	97,449	148,154	5,592,175	134,054,899
Built before 1950	47.7%	45.2%	34.4%	18.2%
Built after 1999	7.0%	6.6%	9.9%	17.0%
Median home value	\$147,100	\$123,500	\$167,700	\$184,700
Median number of rooms	6.0	6.0	6.0	5.5
Percent with 2 or fewer bedrooms	36.6%	34.0%	35.4%	39.7%
Percent with 3 or more bedrooms	63.4%	66.0%	64.6%	60.3%
Housing vacancy rate	12.6%	13.9%	11.3%	12.2%
Percent owner-occupied	65.9%	68.0%	69.0%	63.6%
Percent renter-occupied	34.1%	32.0%	31.0%	36.4%

Home Age and Value

As shown on the charts below, home value in the region is correlated with age of the home. Home value data includes only owner-occupied housing units. The median value of homes built in 2014 or later is over \$375,000 in both counties, while homes built prior to 1950 have median values near or below \$100,000 in both counties. Regionwide, the most apparent drop offs in value are for homes built prior to 2000 and homes prior to 1950.

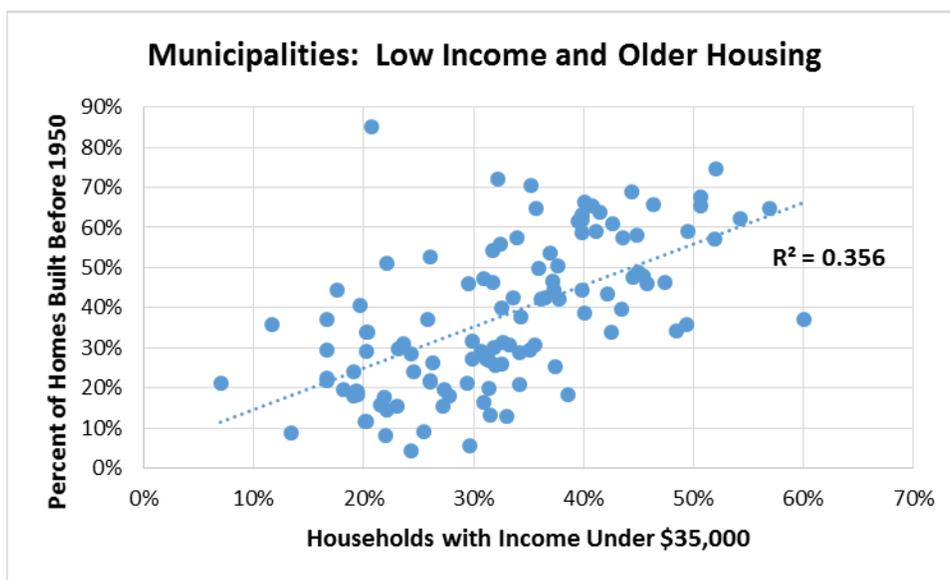




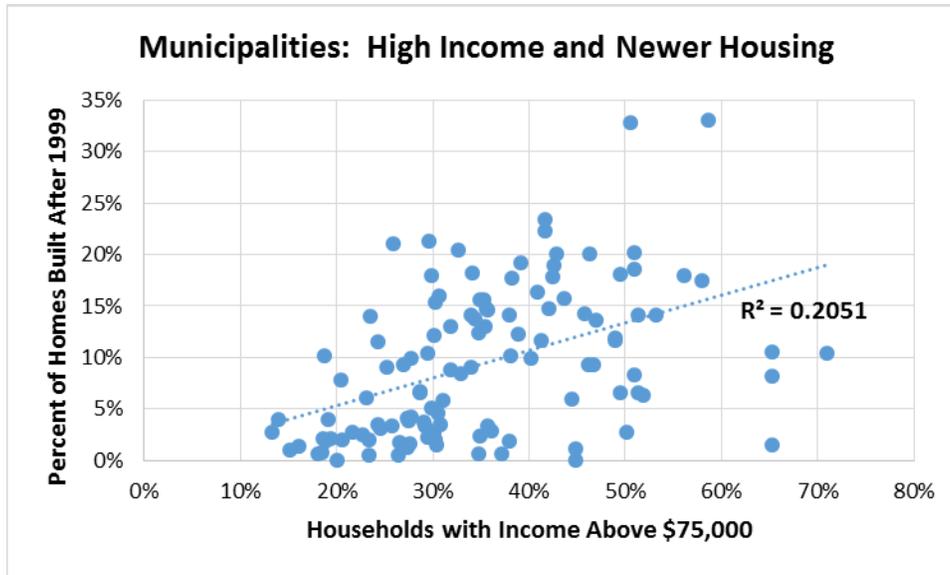
Home Age and Income

Home value can be presumed to correlate with income, as household income is a determiner in the type and quality of housing that a household can afford to rent or purchase. Because home values in the region rise as homes get newer, it is likely that negative impacts of aging housing stock, such as health concerns and financial burden of renovation, disproportionately impact lower income households in the region.

Correlation analysis was conducted to further establish the relationship between income and aging dwellings. The chart below shows each of the 115 municipalities in the two counties as a single point, with the horizontal axis reflecting the percentage of households in the municipality with income under \$35,000. The vertical axis reflects the percentage of homes built before 1950 in that municipality. There is a moderately strong correlation among the municipalities between lower median income and higher shares of older housing.



Similarly, there is a moderate correlation between municipalities having higher shares of newer housing (built after 1999) and higher shares of households with annual income above \$75,000. These statistics account for both owner-occupied and renter-occupied housing.



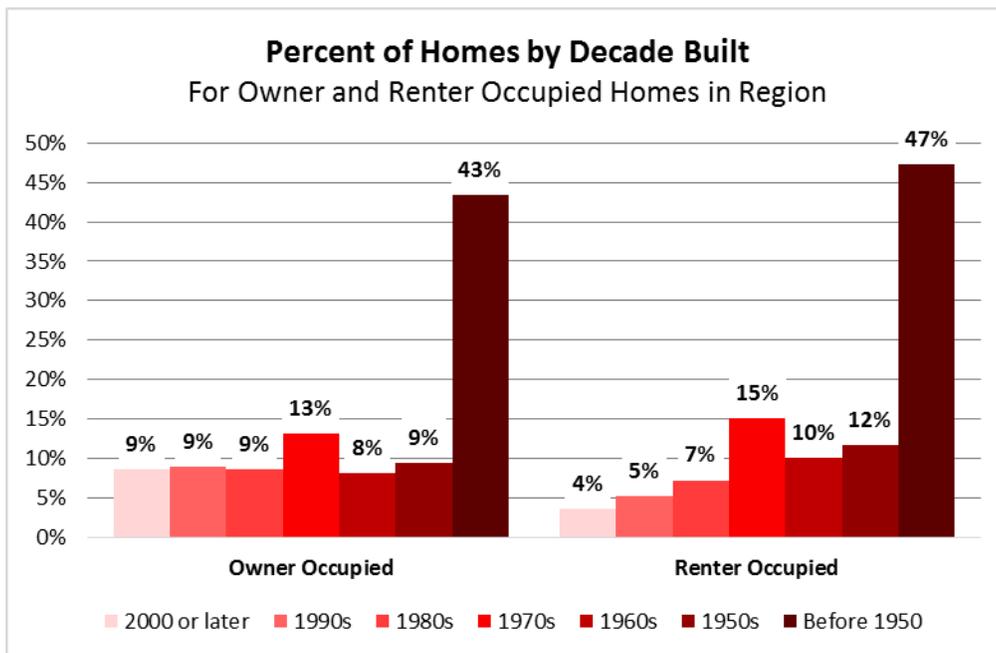
The chart below shows median rent by year the structure was built for rental units. Across the geographies, the newest rental units tend to have far higher prices, while those built in the 1960s through the 1980s generally have lower rent.

Median Gross Rent by Year Structure Built			
	United States	Pennsylvania	Lackawanna & Luzerne
2010 to 2013	\$1,118	\$1,075	\$724
2000s	\$1,122	\$1,107	\$1,016
1990s	\$974	\$928	\$691
1980s	\$925	\$869	\$653
1970s	\$882	\$848	\$658
1960s	\$911	\$863	\$707
1950s	\$936	\$858	\$717
1940s	\$908	\$804	\$718
Before 1940	\$934	\$827	\$737

Home Age and Tenure

The region’s aging housing stock is a condition that applies to both owner-occupied and renter-occupied dwellings. Among owner-occupied homes, 43 percent were built before 1950. Among renter-occupied homes, this share is 47 percent. There is a particular lack of newer rental units. Eighteen percent of

owner-occupied units in the region were built after 1990, compared to only nine percent of rental units. Rental unit construction in the region appears to drop off considerably after 1980.



Implications of Aging Housing Stock

The region’s aging housing stock is likely shaping numerous aspects of public health, the environment, and the region’s economy.

Health & Environment

The condition of these houses plays a great role in certain health and environmental factors. There is a substantial amount of scientific evidence that links physical housing conditions to several different health risks. These health risks include respiratory and cardiovascular disease, allergies, asthma, lead poisoning, infectious disease, chronic illness, poor nutrition, and much more.¹ These health issues stem from indoor air pollution, temperature extremes, harmful substances in building materials, and more. Several of the frequent housing issues addressed below – asbestos and lead-based paint – are no longer in use but present in many older structures. As such, these issues almost entirely affect residents of older dwellings.

Among the most common hazards in older homes is asbestos. Asbestos is a naturally occurring mineral that can be harmful to human health. Many homes that were built before the 1980s contain asbestos in old floor tiles, ceiling tiles, roof shingles, siding, and insulation. Asbestos becomes hazardous when it is airborne, which can be caused by it being damaged.² When areas of these houses have asbestos, it is best that the area is not accessed. The area must be evaluated by expert contractors who could then give directions on correction or prevention. The asbestos could then be removed by an asbestos abatement professional.

Lead-based paint is a commonly occurring material in older homes. Lead-containing paint was banned for consumer uses in 1978, but remains in many homes built before that time. According to the EPA, 87 percent of homes built before 1940 contain lead-based paint, as do 69 percent of homes built between

1940 and 1959, and 24 percent of homes built between 1960 and 1977.³ When these statistics are applied to Northeastern Pennsylvania, it is estimated that over 47,000 homes in Lackawanna County and 69,000 homes in Luzerne County contain lead-based paint. This amounts to just under half of all homes in the region.

Lead paint may be present under layers of newer paint. If paint is in good condition, this may not be a problem. However, peeling, chipping, or cracking lead-based paint is hazardous to health. It is of particular concern in relation to children, who may be susceptible to exposure by ingesting paint chips or dust or by chewing on surfaces with cracked, chipped, or peeling paint. In children, lead exposure is particularly damaging to health, with effects of lead poisoning including nervous system and kidney damage, learning disabilities, speech or language difficulties, hearing damage, and impaired growth. In pregnant women, lead exposure can lead to harm to the developing fetus and other health issues.⁴ In addition to paint, lead contamination can also occur through water when lead plumbing is present.

Radon is another environmental and health hazard found in some homes. Radon has been found in homes due to the natural breakdown of uranium in soil, rock, and water.⁵ Radon testing is the best way to detect if a home has any amounts of radon.

Additionally, any moist areas in the home could lead to the formation of mold. Moisture build up is likely in older homes due to cracking of foundations other degradation of building materials over time. Mold could be removed from a home by cutting out large infestations, using cleaning solutions, and eliminating moisture to prevent recurrence.⁶ It is equally important to get rid of any lead you find within your house. Lead is found in many older paints and pipes. To get rid of the lead in your house, consider repainting and replacing the pipes. Not only is it extremely important to check your older house for radon, mold, and lead, but also check your house's ventilation system. Without proper ventilation, a house could seal in air pollutants and increase moisture in the house.⁷ To reduce the health risks when it comes to older homes it is important to address issues of radon, mold, or lead that is in the house.

Accessibility & Aging in Place

Older homes may also pose added challenges for older adults, individuals with disabilities, and those who wish to stay in their homes when they get older. In 2018, The Institute's Housing Task Force published a report on the state of Aging in Place in Northeastern Pennsylvania. That report found a high demand for the ability to age in place and for accessibility in housing. This is due to several factors, including high cost and limited supply of assisted living and skilled care facilities for seniors, the region's older than average population, and a preference for many older adults to stay in their own homes for as long as they can.⁸

Older adults needs differ by age and ability level, but common aging in place needs are increased lighting, grab bars and railings, reducing trip hazards on stairs or carpets, and reducing fall hazards in the bathrooms. While many of these needs apply to newer homes frequently, older homes may pose an extra layer of challenges. Those with mobility difficulties may be best served by single-floor living, but much of the region's older housing stock is made up of homes with two or more stories. Some have only a single bathroom, which may be on the second floor. Narrower stairways, halls, and doorways can also pose problems for those who use wheelchairs or walkers for mobility. These needs go beyond those of older adults. In The Institute's 2018 report, it was reported that at least 15 percent of the total population in both counties reported having a disability.

Socioeconomic & Financial

As noted previously, the particularly high proportion of older homes at the lower end of the market shows that issues stemming from housing costs may be disproportionately affecting homeowners and renters with low and moderate income.

Many health and environmental challenges in older homes are costly to mitigate. The EPA recommends that homeowners do not attempt to remove exposed lead-based paint themselves, and recommends risk assessment by expert professionals. Similarly, abatement of issues such as mold, radon, or asbestos is typically outside the ability of even “handy” homeowners to effectively remediate themselves. These services are best performed by certified professionals, but the cost of these services is high. Older homes may also cost more in terms of general repairs, and new buyers of older homes may be unprepared financially to address what could be years of deferred maintenance.⁹ One survey of low-income homeowners found that while some needed maintenance, needed repairs had been deferred due to the inability of the low-income homeowners to pay for services or perform the repairs themselves.¹⁰

Many seniors and individuals with disabilities facing the accessibility challenges mentioned above live on fixed incomes that limit their ability to pay for costly maintenance or renovations. According to a 2004 paper, homeowners over age 75 spend approximately \$270 less per year on routine home maintenance compared with younger owners of comparable homes and approximately \$1,100 less on all home improvement. This results in older homeowners benefitting from three percent less price appreciation per year due to the impact of under-maintenance on the market value of the house.¹¹

Energy costs are also a more prominent concern for older homes. Older homes are typically not as efficient as newer ones due to less effective insulation.

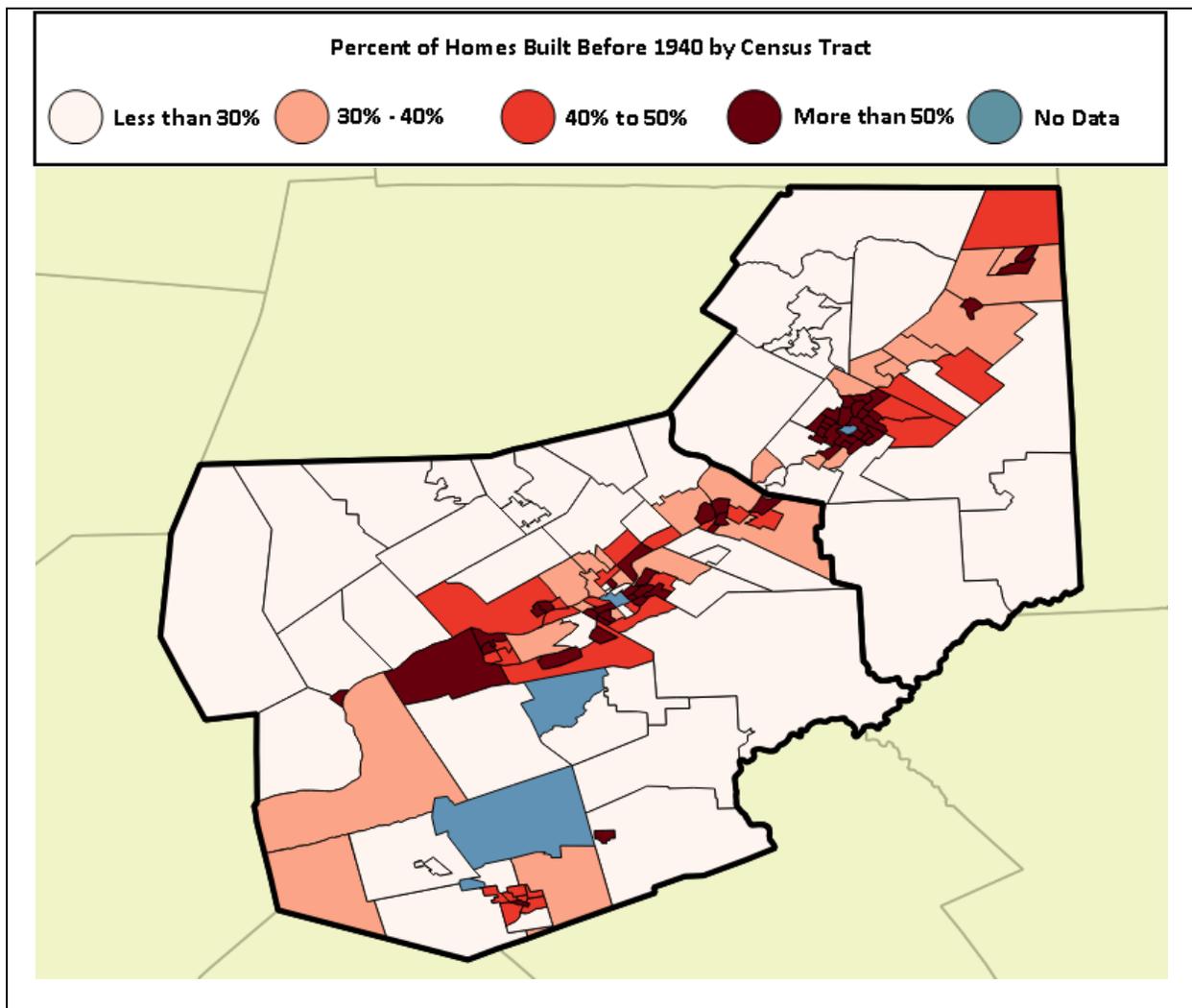
Blight

When maintenance is frequently deferred by homeowners or landlords, physical decay of structures over time can be the result. Housing blight refers to a broad range of housing conditions including vacancy, abandonment, underutilization, and tax delinquency. These conditions can impact many elements of quality of life and have a negative effect on the local tax base.

Lackawanna and Luzerne counties have a housing vacancy rate higher than Pennsylvania or the United States as a whole. A 2017 report on blight published by The Institute’s Housing Task Force estimated that over 5,500 residential properties in the two counties were blighted, and these properties could have a negative tax impact of over \$3 million per year and result in aggregate lost property value in the tens of millions.

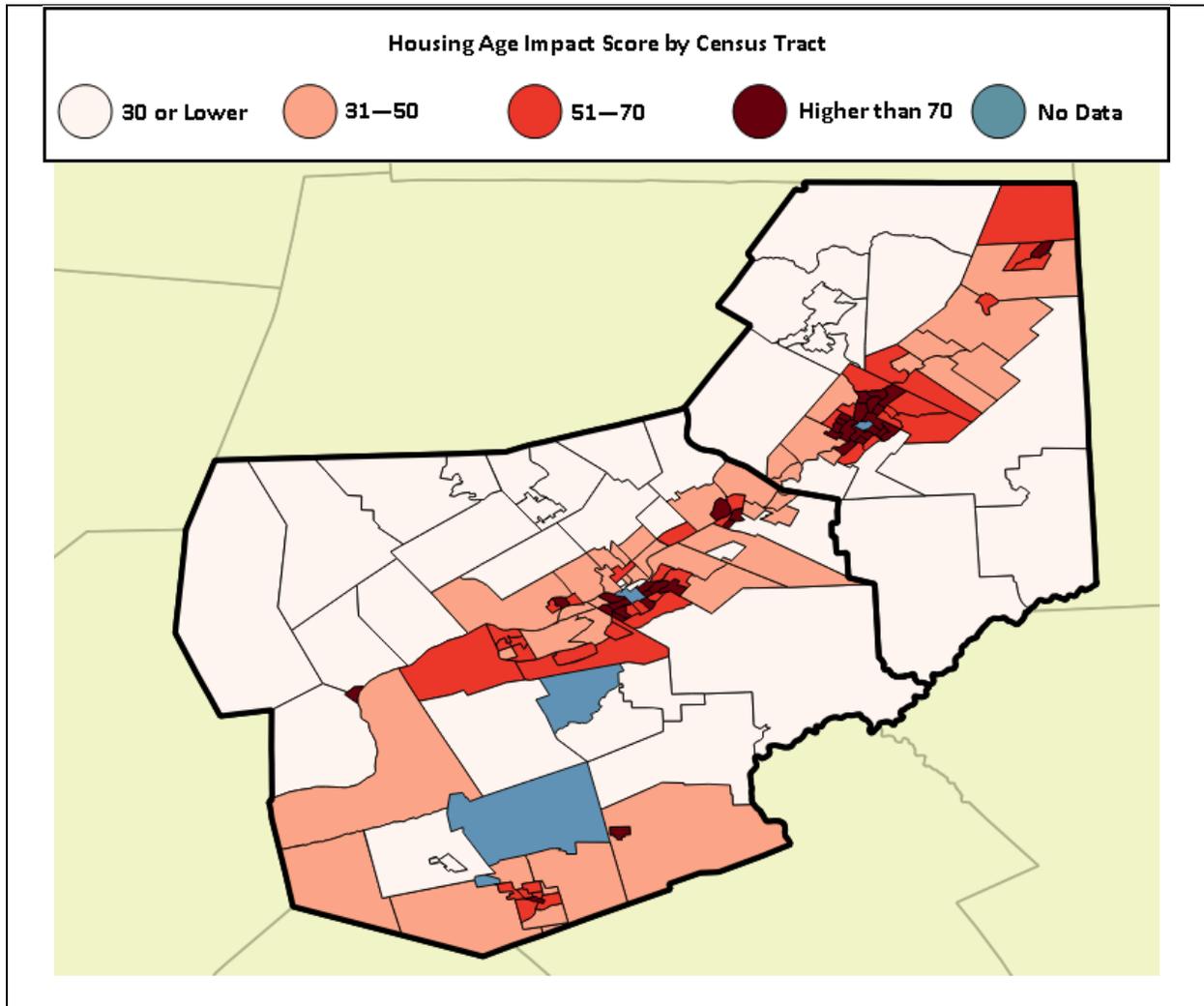
Community-Level Impacts

The impact of older housing stock is uneven across the region. The map below shows the share of housing built before 1940 by census tract, a localized unit of analysis designated by the U.S. Census Bureau. There are numerous tracts in which the majority of all homes were built prior to 1940, including most tracts within the city of Scranton, numerous tracts in Wilkes-Barre, as well as many neighborhoods in around the communities of Carbondale, Jermyn, Pittston, West Pittston, Forty Fort, Plains, Plymouth, Nanticoke, Shickshinny, and Freeland. Though communities with a higher share of older housing are concentrated within the more densely populated I-81 corridor, there are also several more rural tracts with higher shares of older housing.



Furthermore, regional data presented above indicated that older housing appears to disproportionately impact lower income communities, and certain health, and accessibility concerns are exacerbated by socioeconomic factors. In order to attempt to identify communities most at risk for negative health or community impacts, a weighted score was calculated for each census tract that considered age of housing stock as well as housing cost burden and overall poverty. Scores can range from 0 to 100, with

higher scores indicating higher risk or concern due to older housing or related social factors. Sixty percent of the score is comprised of housing stock age (percent of homes built before 1940), 15 percent is comprised of cost burden for owner-occupied housing (ratio of monthly homeowner costs to median household income), another 15 percent is comprised of cost burden for renter-occupied housing (ratio of gross rent to median household income), and the final ten percent is comprised of the overall poverty rate.



As expected, many of the areas highlighted by the map of index scores overlap with the housing age map. However, the addition of socioeconomic and housing cost burden data particularly suggests that housing condition and age issues are most likely to affect households in the region’s three largest cities (Scranton, Wilkes-Barre, and Hazleton) and the surrounding areas, as well as several smaller communities including Freeland, Shickshinny, Nanticoke, Plymouth, Pittston and West Pittston, Jermyn, and Carbondale.

Conclusions & Recommendations

The region has a high concentration of older homes – nearly half were built before 1950. This has important policy implications related to health and environment, economic security, and community-level blight.

Key concerns about housing age related to health include the presence of asbestos, mold, radon, and lead-based paint. Lead paint could be present in half of homes in the two county region, despite the fact that it has not been in use since 1978.

Accessibility is also a concern, especially when aging in place is a regional issue for older adults. Those with disabilities may also be particularly challenged by older housing. Some home retrofitting needs are not specific to older homes alone, but some are particularly acute in older homes, such as narrow doorways or hallways and uneven floors or steps. Many older homes in the region have multiple floors of living space, though reliable data on exactly how many is not readily available.

Every neighborhood is burdened differently by older housing, but the region's urban core and many smaller towns in the Wyoming and Lackawanna Valleys are heavily affected. The impacts of these issues is likely disproportionately impacting lower income households, because rent or purchase costs tend to be more affordable for older housing units.

For older homes, upkeep costs can be substantial. Some first-time homebuyers may be unaware of the significant maintenance that come with buying an older home. Households with low incomes and/or fixed incomes may have difficulty retrofitting their homes to meet their changing needs as they age, keeping their homes in compliance with code, or even performing needed general maintenance.

Inability to pay for costly renovations, hazard mitigation, or general maintenance results in deferred maintenance. Under-maintenance of homes can result in lower resale value, and therefore, reduced equity.

There are several ways that various stakeholders can work towards lessening these negative health, financial, and community impacts.

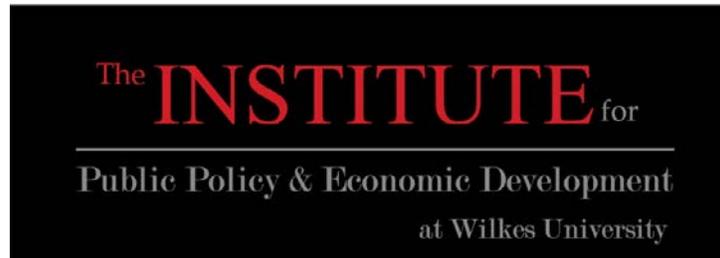
- Communities could **consider tax abatement or other government policies that would encourage new housing development**. Due to the realities of the real estate market, it would be impractical to replace all, or even a significant share, of the region's older housing stock with new housing. However, expanding policies such as tax abatement on property improvements may be helpful in encouraging property owners to replace dilapidated buildings with new housing stock.¹²
- There is a need to **assist homeowners with making necessary repairs or renovations**. Organizations like NeighborWorks Northeast Pennsylvania are already active in assisting older adults with home retrofitting as a part of their work on aging in place. These needs also extend to homeowners of all ages and solutions are likely to necessitate various stakeholders. Specific approaches might include providing direct subsidies or matching grants to homeowners to resolve hazardous conditions in their homes, or matching
- **Explore if additional tenant education is necessary** to inform renters of their rights and potential avenues of recourse they have if there are unsafe or unhealthy conditions in their home. Conversely, there could also be a need for landlord education to inform property owners

about their responsibilities when it comes to issues such as lead-based paint, mold, and providing adequate insulation.

- Communities with more concerns related to aging rental housing can also **consider expanding rental registration policies** that require landlords to register their rental properties and submit to inspections upon a change of occupancy or within specified intervals. In Maryland, a policy was enacted that required landlords register properties built prior to 1978 and pass a lead contamination test upon change of occupancy in a unit. The policy also required that the landlord relocate tenants temporarily if a child living in the unit tests positive for elevated blood lead level until the property could be deemed lead free.¹³
- Finally, it may be possible to **enhance data capture** to better understand specifically where and how homeowners and renters are struggling with inadequate housing conditions. For example, agencies that come into contact with lower income or older homeowners (such as the Area Agencies on Aging, Meals on Wheels, LIHEAP, or Children & Youth) could collect basic data on conditions in the home and note any hazards related to the housing condition and share neighborhood level aggregate data with municipal officials and other social service providers. This would enable better identification of the types of interventions homeowners most frequently need and which neighborhoods are in most need of attention.

Endnotes

- ¹ Housing and Health. (2011, May 25). <http://www.who.int/hia/housing/en/>
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- ⁶ 4 Ways to Remove Mold from Your House. (2016, October 14).
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- ⁸ The Institute "Aging in Place" (2018).
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- ¹⁰ https://papers.ssrn.com/sol3/papers.cfm?abstract_id=509294
- ¹¹ <https://www.theamericanconservative.com/urbs/what-it-actually-costs-to-maintain-an-older-house/>
- ¹² <https://www.theamericanconservative.com/urbs/what-it-actually-costs-to-maintain-an-older-house/>
- ¹³ <https://journals.sagepub.com/doi/full/10.1177/1073110517703334>



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