HOW SUSTAINABLE COMMUNITIES CREATE RESILIENT PEOPLE

2017 PAHRC Report
Housing is the center of our lives and of our communities. As a result, it is a core consideration in planning for our future, safeguarding the survival of our society, and ensuring that all of our neighbors can reach their full potential. Thus housing is the starting point for building sustainable communities that are poised to provide for residents into the future.

This Report explores the ways in which housing can shape resiliency and boost sustainability for individuals and the communities in which they live. It explains the concept of community sustainability and the specific role of affordable housing in shaping our future. The Report also explores trends in people served through housing made affordable through publicly supported housing programs and the challenges they face in recovering from poverty. As the Report continues, it investigates the impact of publicly supported housing programs on individuals’ resiliency and their chances for reaching their full potential. It then explores the contribution of publicly supported housing assets to the sustainability of the communities in which they are located and the challenges that lie ahead in building on their successes. Finally, the Report discusses tools community leaders can utilize to help promote the resiliency of low-income families and improve their community’s path toward sustainability.
While there are many dimensions of community sustainability, the term was first defined in the United Nation’s Bruntland Report, Our Common Future. This concept was built upon by US President Clinton’s Council on Sustainable Development, which outlined the three main components of community sustainability which are environmental, economic, and social sustainability. The current discussion around community sustainability focuses on how these three areas overlap and together impact a community’s ability to provide for its residents and allow them to thrive today and into the future.

Environmental sustainability refers to a community’s relationship with the natural environment. An environmentally sustainable community is structured to preserve natural resources for future generations.

Economic sustainability focuses on the ability of residents to participate in economic production and derive enough resources to thrive. Economically sustainable communities can compete in the larger marketplace, offer a diverse set of goods, and provide ways for all community members to contribute to and benefit from economic production.

The social dimension of community sustainability reflects the need for all residents to benefit equally from opportunities, like education, and participate fully in community life. Socially sustainable communities are structured to give all residents an equal ability to unlock their full potential and access community resources.

More sustainable communities typically experience substantial cost savings and report better resident outcomes. Research estimates the cost of unsustainable and non-inclusive community development to be in the billions of dollars, with many communities positioned to provide a lower quality of life to future residents. As such, charting a course toward greater sustainability is critical for each community.
Housing drives sustainability

Housing intersects with each dimension of community sustainability. Residential structures far outnumber other structures in our communities and have a significant impact on environmental sustainability. Sustainable energy consumption, raw materials use, and siting decisions are intricately connected to each home. Likewise a community’s economic future is directly tied to a healthy housing market and adequate levels of housing affordability. Zoning and land use decisions, the physical connectedness of the community, and the ease at which people can access opportunities from their homes all help to define a community’s social sustainability.

Housing affordability in particular plays a key part in ensuring that communities can attract, retain, and serve residents with access to opportunities to thrive. Research estimate that United States Gross Domestic Product (GDP) was reduced by 13.5% from 1964 to 2009 due to affordable housing shortages in major cities, limiting workers’ mobility. In this way, a lack of affordable housing impedes sustainability. Currently, there is an affordable rental housing crisis in many urban and rural communities in the US. The graph below represents rents households can afford to pay versus actual rents of occupied rental units in the current rental US stock. There is a clear mismatch in what households can afford versus what the market can provide towards the low and high end of the income spectrum. Condensing these data into a single statistic that indicates the degree to which the available rental options fit what community renters can pay for housing, just 53 out of one-hundred US renters live in a unit they can comfortably afford.

As is evidenced above, building rental housing affordable to low-income families does not generally pencil out in the marketplace. As a result, a significant amount of the low-cost affordable housing inventory in communities is made affordable through publicly supported housing programs. These programs provide a subsidy, tax incentive, mortgage loan, or insurance to a property, or provide a voucher to a household in order reduce the cost of housing for low-income families. Publicly supported housing includes federal rental assistance programs administered by the US Department of Housing and Urban Development (HUD) and the US Department of Agriculture (USDA) and tax credit or mortgage-based assistance administered through the Low Income Housing Tax Credit (LIHTC) or the Federal Housing Administration (FHA). Rental assistance programs are usually based on household income and cover the difference between the fair market rent (40% of the area median gross rent) and 30% of the family’s income. Publicly supported housing plays a critical role in sustainability by protecting the most vulnerable families and individuals living in each community and by providing opportunities for them to build their resilience to poverty.
PUBLICLY SUPPORTED HOUSING SUPPORTS VULNERABLE POPULATIONS

PUBLICLY SUPPORTED HOUSING SUPPORTS VULNERABLE POPULATIONS

CHILDREN 5.61M
SENIORS 2.50M
DISABLED 2.65M
VETERANS 428,604


PROTECTING THE MOST VULNERABLE

Sustainable communities must have mechanisms to help their most vulnerable members move towards greater sustainability. Publicly supported housing programs help nearly 13 million people build resiliency to poverty, including five million children, two million seniors, and two million disabled individuals. These programs overwhelmingly serve our nation’s most vulnerable families and help them to open new doors to opportunity. Without these programs, more families would be burdened by poverty and homelessness, which would increase public costs, lengthen the community’s sustainability timeline, and devastate the potential of many individuals.
Children

Publicly supported housing programs seek to limit the damaging effects of poverty on children and provide them a springboard to a better future. Evidence shows that living in a stable, affordable home can improve a number of educational, psychological, and health outcomes for children while presenting new economic opportunities for children as adults. Children are the largest group of individuals served by publicly supported housing programs, composing 38% of individuals served. More than one-third of all households living in housing made affordable through public support have children under 18.

Many children whose parents seek out federal rental assistance are already a step behind their low-income peers and face higher rates of challenges in school like autism and developmental delays. Publicly supported housing can help children and their families allocate more resources towards addressing these barriers and developing resilience to overcome these challenges.

The number of children served by publicly supported housing has steadily dropped over the last decade, reflecting national trends in child-bearing as well as a decrease in public resources for families with children. This trend stabilized in 2016, in which 2% more children were served by publicly supported housing programs than in 2015. Yet many more low-income families with children are in need of affordable housing with only an estimated one-in-three families who qualify for federal rental assistance programs receiving it. If rental assistance programs were expanded to all families that earn less than 80% of the area median income, which is the HUD definition of low-income, and are paying more than 30% of their annual income towards housing, which is the HUD definition of cost burden, 10.6 million additional low-income children could realize the benefits of an affordable home. If these families gained rental assistance and paid 30% of their income on rent, they would gain $358 per month to save or spend on items like food, healthcare, transportation, and education expenses. This bump in income for struggling families would result in $21 billion dollars available to help improve their resiliency.

Seniors

Affordable housing is also a crucial need for seniors, many of whom can no longer work due to disability and age. Publicly supported housing programs assist over two million seniors, 56% of who report being disabled. Many seniors who seek rental assistance face higher rates of disabilities and chronic health problems than their low-income peers, making the need for affordable housing even more critical. While seniors represent 17% of individuals served by publicly supported housing programs, they head one-third of rent-assisted households, a much higher percentage, and have smaller households than rent-assisted families. The numbers of seniors served by publicly supported housing programs are expected to grow as the Baby Boomers age and enter retirement at a greater rate in the coming years. Researchers estimate that the number of senior renters earning below very low-income will increase to 7.6 million and that the number of older households with a disability will increase 76% by 2035, greatly increasing the need for rental assistance among seniors.

The number of seniors utilizing publicly supported housing increased 3.2% from 2015 to 2016, building on the trend that saw double the number of seniors receiving rental assistance since 2004. Seniors tend to need publicly supported housing for longer periods of time. Senior households in public housing had an average length of stay of 16.6 years between 2013 and 2015, compared to 5.6 years for families with children. If resources for rental assistance programs were expanded to meet the need, an additional 3.5 million low-income cost burdened seniors would benefit from an affordable home. If these struggling senior households paid just 30% of their income towards rent, they would save nearly $295 per month on average that could help pay for necessities like medication. This income boost represents $10 billion that would be available to low-income cost burdened seniors.
People with Disabilities

Affordable housing is also a critical need for people living with disabilities. Without the ability to work in many cases, an affordable rent is essential for disabled individuals. Publicly supported housing programs serve over two million disabled individuals, including disabled elderly. Eighteen percent of all individuals served by these programs are disabled and nearly one-third of households receiving rental assistance have a disabled head of household.

In 2016, 5.7% more disabled individuals were served by publicly supported housing programs than in 2015. This bump continues to support the decade-long trend in which the number of disabled individuals served by these programs has more than doubled. If rental assistance programs were expanded to serve all low-income disabled individuals with housing cost burdens, 5 million additional disabled individuals would benefit from an affordable home. A reduction in rent to match 30% of household income would result in an average $297 boost per month in disposable income for disabled households. This boost would add up to $13.7 billion dollars available for disabled individuals to spend on other needs.

Working Families

The majority of adults supported by HUD rental assistance programs who are able to work are, in fact, working. More than three-quarters of able-bodied, working-age households receiving federal rental assistance have at least one working member. At the same time, only 45% of households receiving rental assistance have at least one adult household member that is not elderly, disabled, or a single parent with a child under six and thus may be able to work. Rental assistance provides an important stabilizer for families struggling to make ends meet with low paying jobs. Rental assistance supports nearly one-in-seven low-income households that are earning a majority of their income through wages during their struggle to find meaningful employment and improve their economic sustainability. Research notes that workforce participation is higher for households receiving housing choice vouchers (HCVs) after five years compared to low-income unassisted peers.

The percentage of families who are receiving rental assistance that earn a majority of their income through wages increased by 4.2% in 2016 from 2015 following the trend over the past several years. At the

WHO STILL NEEDS AFFORDABLE HOUSING?

- Children: 10.6M
- Seniors: 3.5M
- Disabled: 5.0M
- Veterans: 1.1M

same time, only 4% of households receive the majority of their income from welfare. This figure has decreased from a high of 10% just after the 2008 recession\textsuperscript{29}. Yet despite working, many rent-assisted families have difficulty paying bills and rely on rental assistance to afford decent, safe housing. Using national averages, someone working full-time would have to make over $20 dollars per hour, or $42,000 per year, to afford the average two bedroom apartment\textsuperscript{30}. In contrast, the national average income for households receiving rental assistance was $14,026 in 2016. Considering local variation in cost of living, there is still no metropolitan area in the US where a household can afford to rent an average two bedroom apartment at minimum wage\textsuperscript{31}.

The average rent-assisted household income is up from $13,927 in 2015, but represents a 1% decrease in real dollars\textsuperscript{32}. Since 2000, the average income of rent-assisted households tends to rise in periods of recession and fall as the economy improves while families do better in the employment marketplace\textsuperscript{33}. This trend likely reflects higher rates of higher-income families applying for rental assistance during tough economic times because they feel an economic pinch more acutely. Income gains of renters in rental assistance programs did not match those of all renters.

Many rent-assisted adults seek out rental assistance because they are starting one step behind their low-income peers in terms of labor market readiness. Research notes that the average adult receiving rental assistance reports lower levels of education than their very low-income peers, who are making 50% of the area median income, due to a variety of barriers such as education costs, transportation, childcare, peer network support, internet access, and academic preparedness. Lower levels of education make it harder for many rent-assisted adults to get a job that pays enough to afford a decent rental unit. This dynamic is exacerbated in high-cost communities, which are associated with longer periods of assistance for rent-assisted families\textsuperscript{35}.

Many adults receiving support from publicly supported housing programs may be caregivers, which can make working outside of the home more difficult and less cost-effective. 43% of working age, able-bodied adults in both the public housing and HCV programs live with someone who may need full-time care, such as a child under six, an adult over 82, or a disabled individual\textsuperscript{36}. The cost of adult day care or childcare can be prohibitive of work outside of the home. For example, the American Association of Retired Persons (AARP) estimated that family caregivers in the US provided 37 billion hours of unpaid care to an adult with limitations in daily activities, worth $470 billion dollars, in 2013\textsuperscript{37}. 

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
Rent-Assisted Households & Change in Average Gross Rent for All Renters \\
\hline
$13,927 in 2015 & +1.4% \\
\hline
\end{tabular}
\caption{Change in Income for Rent-Assisted Households to Change in Market Rent 2015 – 2016 (in real dollars)}
\end{table}

PAHRC tabulation of ACS (five-year) 2010-2014 and 2011-2015 and RCR 2015 and 2016
Further, the average cost for full-time care at childcare centers for one child under the age of five is $9,589, or 68% of the average rent-assisted household’s income. Only 26% of rent-assisted households with children under the age of six reported taking their child to a child care center in the last year. Caregivers with school-age children may also face difficulties when paying for before and/or after school care, expanding the number of rent-assisted adults for whom working outside of the home does not pencil out.
SUSTAINABILITY IMPACT TO ECONOMY BY CHARGING AFFORDABLE RENTS TO UNASSISTED LOW-INCOME FAMILIES (2015)

Providing rental assistance to all eligible unassisted families boosts household savings and funds for other necessities.

Families considered potentially eligible are cost-burdened, earning below 80% of the area median income, and likely not receiving rental assistance.

PAHRC tabulation of ACS (one-year) 2015
Affordable housing provided to low-income families through publicly supported housing programs helps build resiliency for low-income households. These programs provide families with additional stability and position them to build the financial security, personal resources, and support networks critical to improving economic mobility and weathering emergencies. Over two and a half million people were lifted out of poverty by federal rental assistance programs in 2015, over one-third of whom were children. 

**Low-Income Families**

Publicly supported housing programs provided a range of assistance to 7.1 million low-income households in 2016. Rental assistance programs in particular help to make rent more affordable for a variety of struggling Americans. As gross rent continued to rise for all renters in 2016, households receiving rental assistance saw virtually no change in their rent, on average. This type of budget stability is critical for positioning a family towards greater sustainability. However, an estimated 825,000 of these households are at risk of losing rental assistance in 2018 due to proposed budget cuts.

Many more families could boost their resiliency if they received rental assistance. If the nearly 12.7 million cost-burdened low-income renter households received rental assistance, disposable income available for necessities like food and healthcare would increase $321 per month, on average. In total, this amount would represent a $48.8 billion dollar investment in the sustainability of low-income families as well as additional dollars spent in local economies beyond the housing industry.

**Veterans**

Veterans make up a growing population of residents that receive rental assistance. In 2016, nearly 429,000 veterans received rental assistance, representing 21.6% of all low-income veterans. Over 68,000 of these veterans received rental assistance through HUD’s Veteran’s Affairs Supported Housing (VASH) program, allowing housing agencies to serve approximately 10,000 additional households since 2015. With a combination of housing vouchers and health care, many states have effectively ended veteran’s homelessness. Other partnerships between HUD and the US Department of Veteran’s Affairs (VA), such as the Veteran’s Homelessness Prevention Demonstration, have been effective vehicles in providing resiliency to veterans and their families.

In 2016, 5% more veterans were served by rental assistance than in 2015. If rental assistance programs were expanded to serve all veterans in need, an additional 1.1 million low-income cost burdened veteran households would benefit from an affordable home.

**Formerly Homeless**

With over one million individuals experiencing homelessness during 2015, publicly supported housing has a critical role to play in ending homelessness and building the resiliency of affected families. A number of studies have estimated that the benefit of providing rental subsidies to families experiencing homelessness significantly outweighs the costs incurred to other services when individuals and families remain unhoused. Evidence is mounting that providing housing first leads to greater resiliency. ‘Housing first’ programs lend stability to individuals and families while they address the challenges that may have contributed to their loss of resiliency and ultimately their experience of homelessness. In 2016, HUD aided over 325,000 individuals through homeless assistance grants to localities, which provide housing and services to individuals and families experiencing homelessness.
Stability

Community residents without permanent housing are limited in their economic outcomes, making overcoming obstacles or planning for the future difficult. Research documents how frequent moves harm children’s progress in school in addition to their emotional well-being. Instability can also negatively impact adults, especially mothers, thwart jobs, and induce harmful psychological stress.

Lack of housing affordability is often associated with housing instability, which disproportionately affects the poor. For example, 21% of all renter households that moved between 2013 and 2015 noted that reducing housing costs was their primary reason for moving. While 6.8% of households above the poverty level reported a move in 2015, 15.3% of households below poverty reported such a move. Affordable housing improves stability, allowing families to focus on challenges they may face and increases their resiliency. 36% of rent-assisted households reported moving between 2013 and 2015 compared to 51% of their very low-income counterparts. Rent-assisted households also report lower levels of housing uncertainty, which takes into account multiple indicators that a family may move due to housing affordability difficulties. This trend suggests that rental assistance can be a key component in improving household stability.

The process of moving itself can also be costly and push families further into poverty. On average, moving costs range from $1,170 for intrastate moves and $5,630 for interstate moves. Assuming moves due to affordability for families in poverty are within state and half the cost of the average move, rents made affordable through rental assistance could save at least $643 million in moving costs. The added stability provided to families through rental assistance could save households money, which could be used to position the household toward greater sustainability.
Financial Security

A crucial part of resiliency is developing a financial cushion to absorb emergency expenditures and set aside savings for the future. Each year, one in four families experience income disruptions, which include job loss, a work limiting injury or illness, or a 50% drop in income. Low-income individuals are more likely to work non-standard hours and experience high month-to-month income volatility. 74% of people in the lowest income quintile experienced more than a 30% change in month-to-month total income. Such income volatility makes it difficult to save, but also necessitates a financial cushion from which to draw. Experts suggest that families with as little as $250 to $749 in savings are less likely to be evicted or miss housing payments after an income disruption.

Severely cost-burdened households are less likely to report having savings than their low-income peers without severe housing cost burdens. One-in-ten high income families and two-in-ten middle income families report having no non-retirement savings, compared to four-in-ten low-income families. Savings are also critical when determining whether or not an individual has the ability to retire, to prepare for increases in healthcare costs with aging, or save for children’s education. Reductions in rent can help rent-assisted families boost savings. Rent-assisted households report account balances around $1,000, on average.

In addition to promoting saving, budget gains from affordable housing can help households avoid developing debt by missing payments or sinking further into debt because their incomes do not cover basic expenses like food, shelter, and clothing. Consumer expenditure data shows that many low-income family’s expenditures exceed their income and purchasing basic necessities would mean going into debt. Money saved through lowering housing costs can help families save and avoid debt, which can make the difference between living in poverty or upward economic mobility.

Personal Resources

Investments in areas of personal development such as education, job training, health, and emotional well-being also contribute to resiliency. Affordable housing can help residents build and leverage these individual assets to reach their full potential, especially children. For example, for each year a teenager lives in public housing, females experience a $488 average increase in annual earnings as adult and males a $508 increase compared to unassisted low-income peers. Similarly, females in a voucher assisted household experience an increase of $468 in annual earnings as adult and males a $256.00 increase compared to their low-income unassisted peers. In contrast, high-cost housing limits the amount households can spend on building resources that can provide greater economic mobility. Since rental assistance programs serve our nation’s most vulnerable individuals and families, many residents are a step behind their peers in terms of their potential for economic mobility, suffering from poorer health, lower levels of education, and facing additional barriers to resiliency. As a result, affordable housing plays an even more critical role in developing their economic sustainability.

Educational Improvements

Investments in education can lift families out of poverty and provide an ongoing resource that drives future employment opportunities. One study noted that for every additional year of education gained by the head of a rent-assisted household, the family was 11% more likely to exit rental assistance programs with income. Reducing the percentage of the household budget spent on housing, allows families to save for other expenses like college or job certifications. Eliminating extra work hours needed to cover a more expensive rent can also make time for adults to go back to school. It can also provide more resources for families to focus on their children’s education. Education is especially important in building children’s resiliency to poverty. Research suggests that children attending schools with higher per pupil spending complete more schooling, earn higher wages, and have lower rates of poverty than do students attending lower resource schools. Affordable housing with access to better schools provides low-income children an important opportunity for economic mobility.
Investments in Health

Health is a critical precursor to resiliency. It is difficult to work, save, or maintain a standard quality of life if faced with a significant illness or chronic health challenges. As with education, savings gained through obtaining affordable housing can allow people to make greater investments in their health and well-being. Holding health, age, and poverty status constant, renters receiving rental assistance missed fewer days of work in 2013 due to sickness than did low-income unassisted renters. There is also evidence that individuals living in affordable housing report lower healthcare costs and that a reduction in housing cost burdens can improve renters’ self-reported health. In such studies, integrated health services were noted as a key driver for improved healthcare outcomes, suggesting that health and housing collaborations can reduce costs as well as improve patient health outcomes.

Many publicly supported housing properties are part of federal programs aimed at improving housing quality as well as health, and are subject to special oversight to help ensure accommodating features and reduce health hazards like lead.

Regulations on lead-based paint in federally-assisted housing has directly led to significant improvements in health outcomes for children. A recent study found that children receiving rental assistance had lower levels of lead in their blood when compared to their low-income unassisted peers. Decreases in blood lead content levels is related to improvements in children’s test scores, suggesting that housing can play an important role in improving health and educational improvements.

Housing quality problems, such as overcrowding and maintenance problems, are also related to symptoms of depression. Publicly supported housing agencies conduct regular inspections using housing quality and conditions standards and work to match families with an adequately sized unit. Research notes that housing adequacy problems have been reported at lower rates by rent-assisted households in comparison with their low-income unassisted peers. These important parts of publicly supported rental assistance programs can help mitigate potential health risks and reduce stress.
Support Networks

Networks of support are also important factors in resilience as they represent central sources for aid in times of difficulty, as well as pathways to new opportunities. In addition to family, friends living close by, and neighbors can lend a hand during difficult times. Individuals living in neighborhoods with stronger social cohesion report lower rates of depression and hostility. Publicly supported housing communities have been found to support strong relationship networks, which were often the most important factors in resident mobility decisions. In this way, living near family members or friends can also improve stability. These communities often provide avenues to other public supports and nonprofit services that are essential in building personal resiliency and facilitating economic mobility.

Rent-assisted households also report significantly higher levels of civic engagement than unassisted low-income renters. They also report significantly higher rates of neighborhood meeting attendance, solving neighborhood problems, speaking with local officials, and talking with neighbors, than low-income unassisted renters. However, rent-assisted households note higher levels of disagreements with other community members, perhaps representing resentment toward rent-assisted households in certain communities.

For Melissa, a single mother, public housing has given her and her family a home, with the warmth and support of an entire community.

"It’s closer than every other place. Most all of us know everyone. We watch each other’s children. We get together for cookouts — one neighbor will bring the hot dogs, one neighbor will bring the hamburgers. We have a grill master. It’s a tight community. It’s not single family homes where you don’t know your neighbor, or you’ve never seen your neighbor across the street. Everyone pretty much knows everyone and we like it that way. This community makes my family feel at home. It gives them a place to sleep, a place to play, a place to eat, a place to bathe. They have a yard to play in. They have a clothesline to hang clothes on, a place to catch the bus to go to school. Friends, gardening. It’s more than we could dream of."
Along with this impact on individual resiliency, housing is intricately woven into the economic, environmental, and social fabric of our neighborhoods. Publicly supported housing programs that make housing affordable to low-income families are essential to improving a community's sustainability. However, there are also challenges communities face in leveraging these assets to improve outcomes for all community members.

**Economic Sustainability**

Housing is a key economic driver for communities, and housing affordability is an important component of economic vitality for both individuals and the places in which they live. A lack of affordable housing impedes a community’s economic sustainability by raising costs to public services and reducing economic productivity. High rates of homelessness associated with a lack of affordable housing strains the community at large, as affected families use public services more frequently. Costs associated with a highly competitive low cost housing market, and a cycle of eviction and poverty, also diminish sustainability for residents and communities. It is estimated that evictions and property tax abatement for financially insecure residents with less than $2,000 in savings can cost cities millions of dollars. In contrast, access to affordable housing for vulnerable populations has been linked to lower Medicaid costs, lower incidences of homelessness, and lower incarceration rates for the individuals that receive assistance. Publicly supported housing programs help reduce costs associated with poverty and stimulate further economic growth by investing in the economic mobility of residents.

Housing unaffordability also leads cost burdened families spend less on their market basket of goods, including food and healthcare. More affordable housing can boost the local economy by increasing the discretionary money available for other purchases.

**Sustainability Impact of Rental Unaffordability, Housing Patterns, and Disrepair**

<table>
<thead>
<tr>
<th>Economic Impact of Repairing Backlogged Capital Improvements to Public Housing Properties</th>
<th>Consumer Spending or Family Savings Gained by Providing Rental Assistance to Unassisted Eligible Families</th>
<th>Cost to Rebuild Affordable Units at Risk of Loss of Affordability</th>
</tr>
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<tbody>
<tr>
<td>$80B</td>
<td>$48B</td>
<td>$6.4B</td>
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families can spend on other goods and services beyond housing. Greater levels of consumer spending across industries help improve overall economic outcomes for communities, and generate market innovations to meet the needs of community members. Adequate levels of affordable housing also allows workers to move more freely for job opportunities and for companies to attract talent. In this way, adequate affordable housing should boost economic outcomes for current and future generations.

Further economic growth can be achieved by investing in affordable housing preservation and production, which can create a multiplier effect. Building and renovating publicly supported housing properties has leveraged private investment through public-private partnerships. For example, the LIHTC program helped to produce and preserve 2.8 million affordable rental units since its inception in 1986 while also providing returns to investors. Similarly, the Rental Assistance Demonstration (RAD) program leveraged nine dollars for every one dollar of investment in public housing properties. Studies show an economic return to communities in local spending as well as rising home values when dollars are spent on the development of publicly supported housing. A recent estimate suggests that HUD supported housing programs created over half a million local jobs in 2015. In this way, affordable housing development also contributes to economic vitality and improves the sustainability of communities overall.

With the current affordable housing crisis, developing more affordable housing is necessary to promote greater community sustainability. However, stock is being lost from the publicly supported inventory as more high-end rentals are built, low cost rentals fall out of the inventory, and government programs shrink. In 2012, 46% of large multi-family apartments built were considered ‘high-end.’ By the first quarter of 2016, 79% of new large multifamily rentals were high-end. Between 2013 and 2014, 2,725 HUD-assisted properties and 221,474 units left the affordable housing stock, compared to 4,307 newly added HUD-assisted properties and 172,573 HUD-assisted units. According to the National Housing Preservation Database, nearly 500,000 units will reach the end of the contract term for restricting units to remain affordable to low-income families by 2020. If the average 8% of these units are not renewed or become obsolete, 39,799 units of affordable housing will be lost. It would cost $6.4 billion to rebuild and maintain these lost units for 50 years, compared to $4.8B to preserve and maintain these units in decent condition for 50 years. If the estimated $25 billion backlog in public housing repairs was completed, this would infuse $80 billion into local economies. Thus preserving units at risk of loss and updating public housing units in disrepair would not only help ebb the loss of affordable units, but create a ripple effect of economic investment in communities.
Social Sustainability

Sustainable communities provide opportunities for all members to participate fully in the economic and social life of the community. Full participation improves economic and civic outcomes for members. Developing opportunities close to all affordable housing options and opening up access to the community for low-income members choices are important steps toward improving sustainability, bolstering the economy, and enhancing democracy.

Neighborhood Quality

The physical location of where a person lives has a direct impact on their future\(^99\). Higher quality neighborhoods provide more opportunities for economic gains and are less likely to pose health threats\(^100\). Affordable housing is necessary in all areas of the community to ensure that everyone can attend a quality school, feel safe in their neighborhood, and access affordable transportation to meaningful work. Likewise, all neighborhoods should have such opportunities in order to create a well-balanced, resilient community that can weather social and economic changes.

Publicly supported housing programs can play an important role in linking families to opportunities, but additional resources are needed to jumpstart a number of communities where these properties are sited. Looking at how neighborhoods with publicly supported housing properties compare to the city average on a combination of rental prices, crime, poverty, and property values, 41% of project-based HUD-assisted units (including public housing) and 44% of Housing Choice Vouchers were located in census tracts that rated above or at the average of their city\(^101\). Over half of the units in each program were located in below average neighborhoods. Rental housing at all affordability levels tends to be located in lower quality neighborhoods with just 19% of owner-occupied units located in neighborhoods below the city average versus 38% of rental units. The current distribution of publicly supported housing assets represents an important opportunity to help build resiliency in affordable neighborhoods.

PROXIMITY OF PUBLICLY SUPPORTED HOUSING UNITS TO AREAS WITH INDICATORS OF UPWARD ECONOMIC MOBILITY (NOT INCLUDING VOUCHERS)

A MAJORITY OF PUBLICLY SUPPORTED HOUSING UNITS ARE LOCATED IN AREAS WITH AVERAGE OR ABOVE AVERAGE INDICATORS FOR UPWARD ECONOMIC MOBILITY.

<table>
<thead>
<tr>
<th>Indicators of Upward Economic Mobility</th>
<th>Percent of Publicly Supported Housing Units in Average or Above Neighborhoods Compared to City Average</th>
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<tbody>
<tr>
<td>COLLEGE WITHIN TWO MILES</td>
<td>51%</td>
</tr>
<tr>
<td>SCHOOL QUALITY</td>
<td>65%</td>
</tr>
<tr>
<td>NUMBER OF JOBS WITHIN 45 MINUTE DRIVE</td>
<td>94%</td>
</tr>
<tr>
<td>AFFORDABLE TRANSPORTATION COSTS</td>
<td>96%</td>
</tr>
<tr>
<td>NUMBER OF EARLY LEARNING CENTERS</td>
<td>96%</td>
</tr>
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</table>

Part of these disparities are likely driven by the mismatch in the payment standards set forth by Fair Market Rent (FMR) and the median gross rent of housing in above average neighborhoods. 67% of above average neighborhoods have median gross rents that exceeded the maximum payment standard offered by HUD in 2015\textsuperscript{102}. Community opposition and higher development costs can halt the development of HUD-assisted project based units in opportunity areas\textsuperscript{103}.

Despite current location, a number of neighborhoods containing publicly supported housing properties are upwardly transitioning, or improving at higher rates than the city average\textsuperscript{104}. About one-fifth of HUD assisted units and Housing Choice Vouchers were located in areas upwardly transitioning more quickly than the rest of their city, almost half were in neighborhoods transitioning at similar rates to their city, and one-third were in neighborhoods that were transitioning downward more quickly than other neighborhoods in their city. Over one-third of both HUD project based units and Housing Choice Vouchers were in above average or average neighborhoods that were either upwardly transitioning or maintaining.

Opportunities in Upward Mobility

Considering opportunities for upward economic mobility, access to quality education for children is critical for their upward economic mobility. For adults, access to jobs and affordable transportation are key indicators of the potential for economic mobility. Looking at opportunities in neighborhoods with publicly supported housing, the majority of properties are located in neighborhoods that should promote average or above average opportunity for residents. In four of the five upward economic mobility indicators, at least one-quarter of publicly supported properties are located in neighborhoods that exceed their city’s average\textsuperscript{105}.

However, there is more work to be done to improve the access of publicly supported housing residents to opportunities for upward mobility\textsuperscript{105}. For instance, less than 10% of publicly supported properties are located in neighborhoods with above average schools, compared to other neighborhoods in the city\textsuperscript{106}. Encouraging investment in these communities through tax credits or other public tools could help improve the opportunities available in many of these neighborhoods.
Fair Housing

In addition to improving neighborhood quality and opening up access to educational opportunities, sustainability requires eliminating barriers that are the result of historic racism and halting current discriminatory practices. Residential segregation by poverty and race has had a strong limiting effect on mobility and opportunities for low-income minority families. Such limitations depress economic and social outcomes by inhibiting market efficiencies and depriving communities of the valuable input of all members. Over half of the neighborhoods in which publicly supported rentals are built are not much different, on average, from other neighborhoods in their city in terms of households living in poverty. Many public housing, units receiving HUD project-based rental assistance (PBRA), and voucher supported units are located in census tracts with 40% or less of residents living in poverty. 85% of vouchers are located in areas with 40% or less of residents living in poverty, as are nearly 66% of public housing units and 76% of public housing properties. 39% of HUD PBRA units are located in areas with less than 20% of residents below poverty.

Patterns of racial plus economic segregation still plague publicly supported communities today more so than other neighborhoods in their city and housing discrimination continues to inhibit many families from living in desirable areas. Rent-assisted minorities are disproportionately located in higher poverty areas, with low to moderate census tracts containing units housing 54% minority residents, on average, and moderate to high poverty census tracts containing assisted units housing 82% minority residents, on average. These patterns of segregation have a major toll on community sustainability and household resiliency. For example, one study estimated that improving racial and economic patterns of segregation in Chicago would increase the income of black residents by $4.4 billion, collectively. Another study noted that due to housing and workplace discrimination, the average African American household would take 228 years to build the assets held by today’s average white American household. Segregated communities limit their overall resiliency and growth because they restrict the options and input of many of their members. Reducing barriers for minorities to live near opportunities for economic mobility and supporting efforts to close the wealth gap for poor minority families will in turn improve economic and civic outcomes for communities.

Accessible Transportation

The location and cost of transportation in relation to housing options also plays an important role in social sustainability. Rent-assisted households report living close to areas with high public transportation usage more frequently than do low-income unassisted households. Most publicly supported housing properties are located in neighborhoods exhibit average or above average transportation access and affordability in comparison to other neighborhoods in the city.

Yet improved transportation linkages with affordable housing options are important to improving overall sustainable communities. A recent study found that while most HUD-assisted household transportation expenditures fell within the recommended 15% of household income, a significant number of HUD multifamily properties in high cost areas were not affordable when factoring in higher than average transportation costs in these areas. While nearly one-third of HUD-assisted properties and one-quarter of Housing Choice Voucher holders are located within walkable neighborhoods, more HUD-assisted properties and Housing Choice Vouchers are in non-walkable neighborhoods compared to all rental units. Some evidence suggests that voucher holders need greater automobile access to live in opportunity neighborhoods.

Ongoing efforts to better link affordable housing to inexpensive transportation are underway to improve the connectedness of communities and access to opportunities. For example, the establishment of subsidized and regulated vanpooling programs helped low-income residents of Traverse City, Michigan commute downtown to access employment and other necessities.

Environmental Sustainability

Environmentally sustainable communities are positioned to be energy efficient, preserve resources, be resilient to natural disasters, and integrate more seamlessly with their environment. They also provide healthy spaces for their residents to thrive. Many housing providers participating in publicly supported housing programs have made significant investments into improving energy efficiency, building healthy communities, and incorporating environmental design into development.
Energy Preservation and Efficiency

Natural resources, especially those that provide energy, are important factors in every community. Efforts to improve energy efficiency help reduce costs to consumers and make housing more affordable for low-income families. Transitions to renewable energy sources, such as solar power, or geo-thermal heating, help ensure adequate supplies of energy for future generations in addition to cutting costs. Affordable housing has played a significant part in efforts to build energy efficient and environmentally sustainable homes. Nearly 23,000 affordable housing units are Leadership in Energy and Environment Design (LEED) certified and represent 43% of all LEED certified units118. Housing agencies have made significant investments in the publicly supported housing portfolio to improve energy efficiency, developing more than 500,000 energy efficient retrofits, or new green units, since 2010119.

Weatherization efforts supported by HUD and the US Department of Energy (DOE) have also helped to reduce energy costs in publicly supported rental units. Energy retrofitting the publicly supported housing stock is important to both making homes more affordable and addressing some of the most crucial sustainability needs.Rentals in the non-publicly supported housing stock tend to be older and in greater need of improvements including energy retrofits than owner-occupied housing or properties in the inventory of publicly supported housing120. A study of 231 retrofitted multifamily properties in New York City estimated energy savings from energy improvements to total $2.3 million in fuel savings and $730,000 in electricity savings121.

Additional work remains to better position the publicly supported and affordable housing stock towards greater sustainability. As of 2015, the DOE estimated that 881,412 units of public housing and at least 820,460 of HUD-assisted multifamily housing with at least three years left under contract would qualify for weatherization funds122. The estimated energy savings realized by weatherizing these units would be $350 per year per unit or $5,505 over the life of the measures, based on current cost savings of similar units123. Given the number of units in need of improving, this cost savings would reach $9.4 billion dollars over the life of the weatherization measures124. Investments in energy efficiency and resource preservation in the publicly supported housing stock will help to improve the longevity of the affordable housing stock as well as improve the environmental sustainability of the larger community.

SUSTAINABILITY IMPACT OF WEATHERIZATION
WEATHERIZING ALL ELLIGIBLE HUD-ASSISTED UNITS COULD SAVE $9.4 BILLION DOLLARS IN ENERGY COSTS.

1.7M
HUD-Assisted Housing Units Eligible for Weatherization

$9.4B
Sustainability Impact Over Life of Weatherization Measures

PAHRC tabulation based on HUD weatherization data and cost-savings estimates. Includes public and multi-family housing.
Healthy Communities

Where someone lives can impact their overall health. Sustainable communities are also healthy communities that provide access to healthcare and a healthy environment. Factors such as air and water quality, access to recreation spaces, proximity to healthcare and grocery stores, and the absence of environmental hazards all impact public health.

Publicly supported housing programs have actively engaged in efforts to improve public health in their communities. For example, a recent smoke-free rule for public housing properties encourages residents to engage in healthy lifestyles. The Centers for Disease Control and Prevention estimates that eliminating smoking from publically assisted rental properties would result in an annual cost savings of $341 million dollars from reduced health care expenses related to secondhand smoke\(^\text{125}\). It is also estimated to save $72 million in fire related losses.

However, challenges remain in improving the health of community members in relation to their environment. While almost three-quarters of households living in publicly supported housing properties live in neighborhoods rated by the Environmental Protection Agency (EPA) respiratory index as average or better, publicly supported housing properties and voucher supported units are more concentrated in higher risk respiratory areas than other rental units\(^\text{126}\). Living in areas with high environmental toxins can have a real impact on an individual’s health and healthcare costs. Researchers estimate that in 2011, air pollution from the US energy industry cost individuals $131 billion dollars in additional health-care expenses\(^\text{127}\).

In many ways, the environment of the households living in publicly supported housing as well as the environment of voucher holders resembles that of their renter neighbors. For example, both groups report being within a half mile of a grocery store (or ten miles in rural areas) at about the same rate\(^\text{128}\). The major differences in neighborhood health outcomes are between all renters and all owners. This is because all owners tend to live in healthier neighborhoods than renters. 15% of owner-occupied housing is located in neighborhoods with low risk respiratory hazards compared to just 7% of rental properties\(^\text{127}\).

While HUD and EPA programs have helped to remove some environmental hazards, other environmental hazards remain. There have also been recent cases related to water quality, lead, and non-remediated factory sites. Healthy residents are critical to resilient communities and the physical environment in which they live is an important factor in maintaining good health.
A majority of publicly supported housing units are located in areas with average or above average indicators for healthy environments (not including vouchers).

## Indicators of Healthy Environment

- **Air Quality**: 74%
- **Within Half Mile of Grocery Store**: 65%
- **Within Half Mile of Recreation Space**: 44%

Percent of Publicly Supported Housing Units in Average or Above Average Compared to City Average

Environmental Design

Incorporating natural features into built communities and considering the surrounding environment in their design can help improve resident well-being and contribute to community sustainability. Pedestrian green spaces like parks, gardens, and walkable neighborhoods can encourage exercise and healthy eating as well as social interaction between neighbors. Site planning decisions that take into account nearby environmental features and natural resources help integrate the built environment with the natural ecosystem to shift the footprint of communities and use existing resources more efficiently.

Many publicly supported housing communities have incorporated principles of environmental design into their developments. Several states including California, Minnesota, and Massachusetts have created financial incentives for communities to co-develop affordable housing and green spaces. Rent-assisted households are more likely to report that they live within a half of a mile from an open space than low-income unassisted renters. Other publicly supported housing properties have added urban gardens into their communities that support local food production, encourage outdoor recreation, and build horticultural knowledge. A recent HUD report helps communities plan for pedestrians, noting important synergies between land use, transportation, health, and the environment. Considerations such as these are important parts of building an environmentally sustainable community.

While much progress has been made, many low-income communities remain at higher risk to natural disaster or climate change impacts. For example, Hurricane Katrina and Superstorm Sandy significantly damaged publicly supported housing properties. In 2014, HUD partnered with the Rockefeller Foundation to award grants to promising models for disaster resilience in the National Disaster Resilience Competition. Efforts like these will help to position publicly supported housing properties and the communities in which they are located toward greater environmental sustainability.

The Denver Housing Authority has partnered with Denver Urban Gardens to create a series of community gardens at its properties. Through this partnership, the Denver Housing Authority is able to ensure gardening access to individuals who may lack the financial resources necessary to establish a standard community garden plot. Aspiring gardeners learn how to plant and maintain gardens through a series of classes offered by the Denver Botanical Garden and the produce harvested from the garden is contributed to the Osage Café, a nonprofit employing low-income youth culinary trainees. These gardens benefit seniors, youth, and families living at the properties and also create sustainable food networks in the urban core. Together the Denver Housing Authority and Denver Urban Gardens are growing more than food, they are growing communities.
Data-Driven Assessment

Leveraging community data to better understand challenges to sustainability is an important part of building more resilient individuals and communities. There are a number of ways to measure the economic, social, and environmental components of community sustainability. Experts recommend community stakeholders conduct a local assessment to understand local strengths and challenges and to plan for the future. At the federal level, HUD, along with the US Department of Transportation (DOT), and the EPA created the Partnership for Sustainable Communities, which offers a number of sustainability indicators that can be used to assess local conditions. Other local indicators and examples of how cities are using these data can be found through the National Neighborhood Indicators Partnership. There are a number of data resources available to provide a snapshot of the publicly supported housing inventory and challenges community members face in relation to housing; such as affordability, mobility, transportation access, and accommodating spaces. For example, the NHPD provides a de-duplicated inventory of publicly supported housing properties. Databases like Paycheck to Paycheck, the American Housing Survey, HUD’s Comprehensive Housing Affordability Strategy (CHAS), and HUD’s Location Affordability Index can help localities better understand issues like cost burden for working families and features of the housing inventory. Communities can decide which indicators are most important in their local context and create a plan for improvement. Along with an outline for improving sustainability, experts also recommend that communities create a set of benchmarks to measure progress and help re-assess goals along the way. With data tools such as these, community stakeholders can assess the current sustainability trajectory of their community and make ongoing course corrections to ensure the community allows all members to thrive, now and into the future.

Purposeful Partnerships

Since sustainability necessitates a holistic approach to community development, local stakeholders and government agencies that work together to create a shared plan for community resiliency are likely to see more consistent results. Partners can work to create social – economic – environmental linkages on core projects, much like HUD and the DOT, EPA, and DOE. Bridge-building partnerships that facilitate community participation will be necessary to promote many community sustainability initiatives such as revising local zoning laws to allow mixed use development, collaborating on building siting decisions, and linking affordable housing to transportation.
Connecting sustainability issues to housing and centering partnerships on the housing sector is particularly important. Since housing is at the center of the community, it can drive sustainability efforts. Likewise, because housing affordability is a critical challenge in many communities, collaborations that focus on affordable housing should be especially effective in moving the needle on sustainability outcomes.

Empowering Engagement

An important part of building community sustainability includes empowering people to improve individual resiliency and actively engage in their communities. Including neighbors in the planning and assessment process can be an important avenue for local participation and engagement and help turn community opposition into input. Including avenues that allow low-income community residents to build personal resiliency is important in planning decisions. These principles can be seen in other community development efforts led by HUD such as Empowerment Zones (EZ), which used community planning to facilitate resident job growth. Five out of six EZ communities reported job growth, which surpassed that of the surrounding areas, and those associated workforce development programs placed over 16,000 residents into jobs\textsuperscript{141}. Efforts such as these help design communities to more fully incorporate all members. Involving residents in the process of making their city work better for them and their children, will better ensure that all needs are met, residents are not displaced by unaffordability and that residents will support and perpetuate sustainability efforts.

Using Massachusetts Bay Transportation Authority (MBTA)’s Red Line extension as a catalyst for the revitalization of Davis Square over forty years ago, the City of Somerville still continues to leverage key partnerships to further repurpose their transit-oriented development area. Today, Davis Square is a vibrant mixed-use center comprised of retail, office, institutional, residential, and entertainment properties. Somerville utilizes various sources of HUD funding to acquire, develop, and rehabilitate multifamily housing for low-income individuals and families. Somerville has also partnered with the MBTA, Massachusetts Highway Department, and the State to create new parks, bike and pedestrian pathways, and produce extensive works of art throughout the square. With community sustainability in mind, Davis Square was revitalized in a manner to encourage pedestrian activity and discourage auto usage. This is supported by the MBTA through provision of commuter parking and facilities for bicycle storage.
Sustainable communities provide opportunities for all residents to reach their full potential while ensuring that economic and environmental resources are preserved for future generations. Housing made affordable through publicly supported housing programs, like rental assistance, plays a pivotal role in building sustainable communities and improving individual resilience. Publicly supported housing helps to assist the most vulnerable members of our communities; especially children, seniors, and disabled individuals as well as working families who may already be a step behind their low-income peers. With affordable housing made possible through publicly supported housing programs, these families benefit from greater stability, build their financial security, invest in their future, and leverage networks of support to improve their resiliency to setbacks and their ability to springboard toward greater economic mobility. More resilient residents help to create more sustainable communities with greater economic vitality, and a more efficient and equitable use of shared resources.

However, not enough housing can be made affordable through publicly supported housing programs to meet the need facing most communities. Rising rents, an increase in renters, a drop in the affordable housing stock, and stagnating wages work together to increasingly make affordable rental housing difficult to find, especially for low-income renters. If housing were made affordable to more individuals in need, the estimated impact in cross-industry consumer spending or saving would be $48 billion. The improvement in contributions to the local economy and reductions in costs associated with chronic poverty would help springboard communities to greater sustainability.

In addition to the contributions of greater individual resiliency to community sustainability, publicly supported housing programs can help to stimulate economic growth, break down harmful social barriers, and improve energy efficiency and environmental design. Publicly supported housing properties can help revitalize neighborhoods and open up opportunities for low-income families in desirable neighborhoods. Publicly supported properties are finding new ways to build green, connect residents to their environment, and improve community health.

Yet these programs are working to overcome a history of damaging policy interventions that have led to economic inefficiencies and moral imperatives for improvement. Segregation by race and income has plagued many communities and limited the potential of their residents as well as that of the community. These barriers to sustainability must be overcome to build better, more resilient communities for current and future generations.

Affordable housing is the foundation for building personal resiliency as well as improving community sustainability. Understanding barriers to sustainability in communities using data is an important step to removing barriers and making improvements. Partnerships in planning and service delivery are also necessary to coordinate the complex systems that impact communities and to plan for future improvements. Finally, empowerment is necessary to encourage individuals and communities to make daily choices and build policies that point toward greater sustainability and resiliency. Affordable housing and promoting the full potential of our most vulnerable residents should be at the center of our strategies to create community sustainability. Our communities are only as sustainable as our vision for the future.
REFERENCES

References are available at www.housingcenter.com/research/PAHRCReport2017references

The estimation methods for the statistics provided in this report are available at www.housingcenter.com/research/PAHRCReport2017methods

Accompanying maps that display data at the state and local level are available:

Cost Savings on Investments in Sustainable Practices: http://arcg.is/2pZulUC
Sustainable Communities Build Resilient Residents: http://arcg.is/2qslI9y
How Far Does Rental Assistance Go?: http://arcg.is/2qaio19

ABOUT PAHRC

The Public and Affordable Housing Research Corporation (PAHRC) is HAI Group’s independent, non-profit research center dedicated to conducting research that promotes the national conversation about the importance of affordable housing. Through industry collaboration, data collection and independent research, PAHRC spotlights the impact, outcomes and value affordable housing brings to the families it serves and to the communities it supports. PAHRC also delivers data and tools that assist researchers, practitioners and advocates to build an evidence-based case for why affordable housing matters.

PAHRC’s mission is to provide independent research and relevant data to support the efforts of the public and affordable housing industry and its stakeholders.

PAHRC’s vision is to be a central hub for data and research on public and affordable housing.

About the PAHRC Report

The PAHRC Report is a yearly comprehensive source for research and statistics on assisted housing. Following a different theme each year, the report provides data on the supply of housing assistance, persons receiving assistance, and the impacts of assistance on residents and communities. The purpose of the report is to better understand the need for housing assistance and how it can best meet the needs of low-income families and the communities in which they live.

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