



Housing Research in Berrien County

Preliminary Research on Housing

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Agenda

1. Context for the Housing Research - LIDAC Analysis
2. Age of Home and Energy Consumption Type Research
3. Introduction to AMI Score in Berrien County
 - A look into
 - a. Median household income
 - b. Average household size
4. AMI Score Calculation and Suggestions based on Data



1. LIDAC Analysis

LIDAC Benefits Overview

LIDAC - low income and disadvantaged communities

- Research has shown that low income and disadvantaged communities benefit from targeted home repairs, electrical upgrades, weatherization, and other energy waste reduction investments.
- Through conducting comprehensive housing research within Berrien County, we can identify specific areas and houses in need of repair.
- Targeting these homes for improvements such as home repairs, electrical upgrades, weatherization, and other energy waste reduction measures will maximize the benefits for low-income and disadvantaged communities.



A significant portion of housing units is energy-inefficient, causing low-income families to face higher utility bills. (US Census, Research)

LIDAC Benefits Analysis

- An additional benefit that can be expected from weatherization and home repair investments is increased comfort by reducing summer heat stress and ensuring warmth in the winter, particularly helpful for vulnerable population segments like the elderly and young children.
- Energy efficient homes also translates to **lower energy costs**, alleviating a portion of the **financial burden on low-income households** and contributing to longer term economic stability.
- Efforts should be made to preserve existing affordable housing and tenant protections to ensure that home upgrades and electrification do not have adverse impacts on LIDAC households.

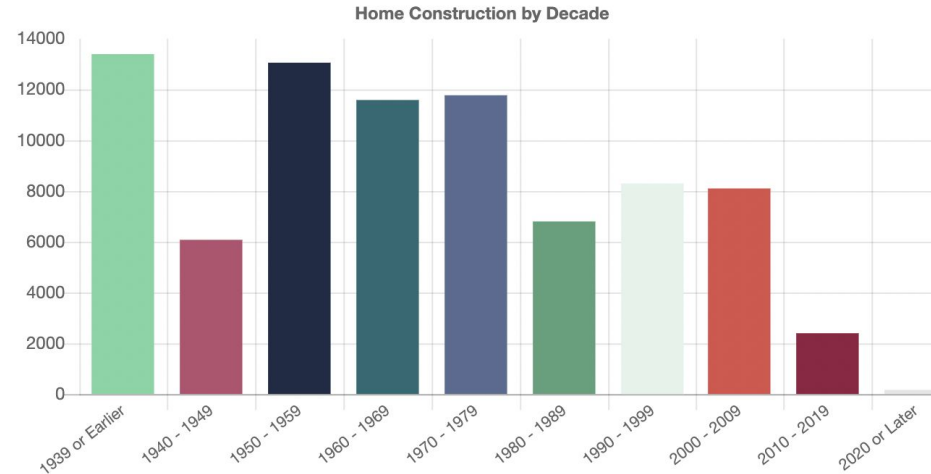
The background of the slide is a dark blue gradient. In the lower half, there is a decorative graphic consisting of several green hexagons of varying sizes. From the vertices and midpoints of these hexagons, thin green lines extend upwards, resembling a circuit board or a network diagram. Some of these lines terminate in small green circles.

2. Age of Home and Energy Use Research

Age of Home - Berrien County

- There are **81,648 housing units** in Berrien County, and the median year in which these properties were built is **1967 (57 years old)**.
- In comparison, the median construction year for homes in the **United States is 1979**, and **1972 for Michigan**, indicating that Berrien County's homes are generally older.

		Y-o-Y Change
Housing Units	81,648	0.3%
Median Year Built	1967	-0.1%
Built in 1939 or Earlier	13,396	0.5%
Built between 1940 and 1949	6,077	2.6%
Built between 1950 and 1959	13,057	-2.0%
Built between 1960 and 1969	11,587	-0.4%
Built between 1970 and 1979	11,774	1.9%
Built between 1980 and 1989	6,802	0.0%
Built between 1990 and 1999	8,295	-4.4%
Built between 2000 and 2009	8,101	0.8%
Built between 2010 and 2019	2,396	15.4%
Built in 2020 or Later	163	186.0%



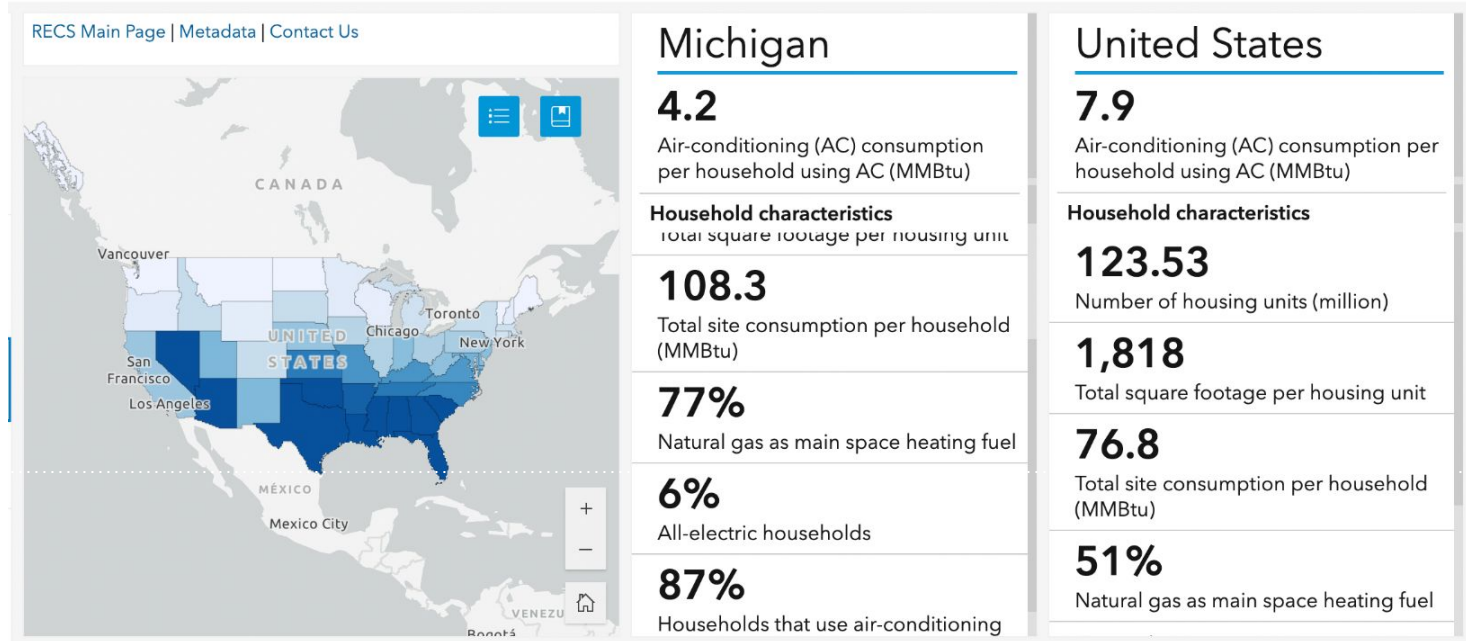
Age of Home - Cities in Berrien County

- Among the 24 cities in Berrien County, there are **9** of those cities who has a median age of home **from 1950 to 1959**, **5** from **1960 to 1969**, **9** from **1970 to 1979**, and **1** **after 1980**.
- Top 10 cities with the oldest median age of home are highlighted here.

City	Median Age of Home	Total house built	Zip Code	Summary Statistics	
Berrien Springs, MI	1951	857	49103	Count of city	24
Three Oaks, MI	1952	637	49128	Median age of home	1964
Niles, MI	1954	5,089	49120	Average house built	1183
Riverside, MI	1954	27	49084		
St. Joseph, MI	1954	3394	49085		
Watervliet, MI	1955	714	49098		
Galien, MI	1956	225	49113		
Coloma, MI	1957	487	49038		
Benton Harbor, MI	1959	4517	49023		
Buchanan, MI	1961	2,204	49107		
Harbert, MI	1961	383	49115		
Lakeside, MI	1963	391	49116		
Michiana, MI	1964	405	49117		
Union Pier, MI	1967	1251	49129		
Bridgman, MI	1970	1294	49106		
Sodus, MI	1970	519	49126		
Eau Claire, MI	1971	231	49111		
New Troy, MI	1971	168	49119		
Stevensville, MI	1971	600	49127		
Berrien Center, MI	1972	745	49102		
Sawyer, MI	1972	1645	49125		
Grand Beach, MI	1974	553	49117		
New Buffalo, MI	1977	1602	49117		
Baroda, MI	1986	447	49101		

Energy Type - State-level Interactive Map

- The graph indicates that **nearly 80% of households** in Michigan use **natural gas** as their primary heating fuel, likely due to the **high median age of homes in the state**.
- Natural gas is often expensive and not very sustainable for households. Therefore, home repairs and energy efficiency updates are crucial in the region for both short-term and long-term benefits.

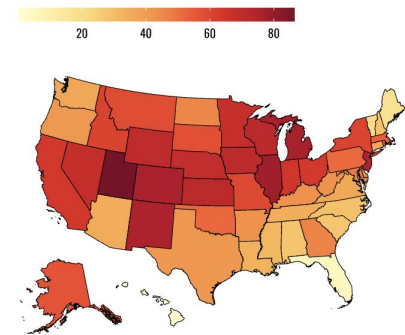


Energy Consumption Type - State Level

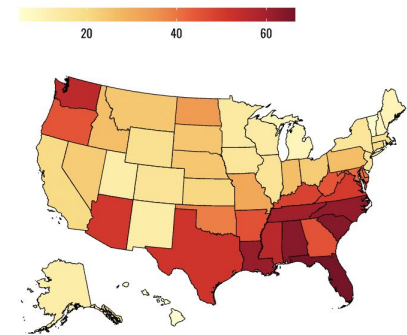
U.S. Residential Energy Consumption Challenges and Opportunities for Clean Energy Transition Report

- <https://georgetown.app.box.com/s/zcsxy86scoxrs4hjrs9uc0noq0n2sh9f>

Household Usage of Natural Gas for Heating (%)



Household Usage of Electricity for Heating (%)



Household Usage of Fuel Oil for Heating (%)

Household Usage of Propane for Heating (%)



Use of natural gas for space heating

RANK	REGION	CLIMATE	STATE	TOTAL NUMBER OF HOUSEHOLDS	NUMBER OF HOUSEHOLDS	PERCENTAGE
1	WEST	COLD	UTAH	1,039,997	898,647	86.4
2	MIDWEST	COLD	ILLINOIS	4,900,521	3,839,128	78.3
3	MIDWEST	COLD	MICHIGAN	3,918,917	3,008,779	76.8
4	WEST	COLD	COLORADO	2,259,861	1,724,908	76.3
5	WEST	MIXED-DRY	NEW MEXICO	787,053	596,904	75.8





3. AMI score & factors relate to AMI

AMI Score

What is AMI?

- Area Median Income, also known as “A-M-I” or sometimes referenced as Median Family Income (MFI), is the household **income for the median/’middle’ household** in a given region. Thus, if you were to line up each household from poorest to wealthiest, the household in the very middle would be considered the median.
- The middle or median income of an area is utilized to **benchmark incomes levels** and **highlight the need for programs or services** within a given community. The income benchmarks are calculated and adjusted based on family/household size.

Ways of Calculation

To estimate your household's area median income

1. Add all household wage-earners gross income (income before any taxes or other deductions) then
2. Total how many individuals (both adults and children) reside in the household.
3. Once you have those two numbers, locate your household size on the chart above and then locate the closest income limit category to your own household income.



Research on dataset related to AMI

- To accurately calculate the Area Median Income (AMI) score for the region, it is essential to obtain detailed information on both the **median household income** and the **average household size**. This data is critical for an accurate assessment of the area's economic status.
- Relevant data has been collected on the City of Niles, Buchanan, and Berrien County, including key metrics such as median household income and average household size, enabling a detailed analysis and calculation of the AMI score for the region.

Average Household Size in Niles, Buchanan, and Berrien County

Home Occupancy Rate in Niles and Buchanan

Over a five-year period

Column →	<u>Berrien County, MI</u>	<u>Buchanan, MI</u>	<u>Michigan</u>	<u>Niles, MI</u>	<u>United States</u>
Occupied	82.5% ±0.9%	84.7% ±13.3%	87.5% ±0.2%	91.7% ±7.6%	89.2% ±0.1%
Vacant	17.5% ±0.8%	15.3% ±7.8%	12.5% ±0.2%	8.3% ±2.8%	10.8% ±0.1%

- Based on the data, the home occupancy rate in Buchanan and Niles has shown great increases over the past five years.
- Buchanan's occupancy rate has risen by approximately 13.3%, while Niles has experienced an increase of 7.6%.

Average Household Size - Niles & Buchanan

Households

5,089 ±299

Number of households

the Niles, MI Metro Area: 63,512 ±661

Michigan: 4,009,253 ±7,688

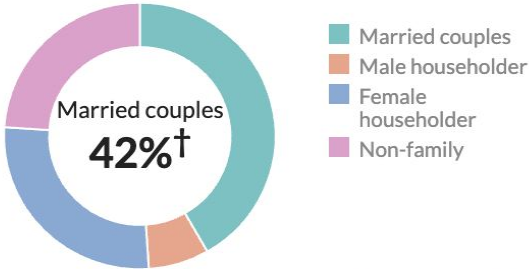
2.3

Persons per household

a little less than the figure in the Niles, MI Metro Area: 2.4

about 90 percent of the figure in Michigan: 2.5

Population by household type



[Show data](#) / [Embed](#)

1,867

Number of households

the Niles, MI Metro Area: 63,512

Michigan: 4,009,253

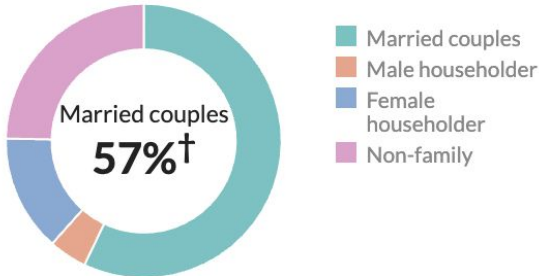
2.3

Persons per household

a little less than the figure in the Niles, MI Metro Area: 2.4

about 90 percent of the figure in Michigan: 2.5

Population by household type



[Show data](#) / [Embed](#)

Average Household Size - Berrien County

Households

63,311

Number of households

Michigan: 4,089,794

United States: 129,870,930

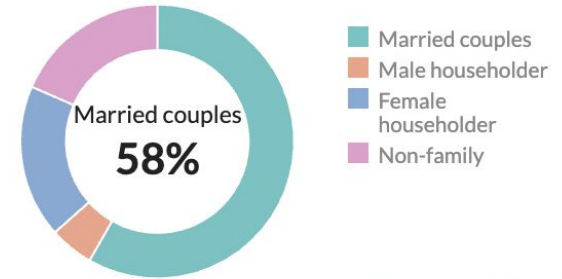
2.4

Persons per household

about the same as the figure in Michigan: 2.4

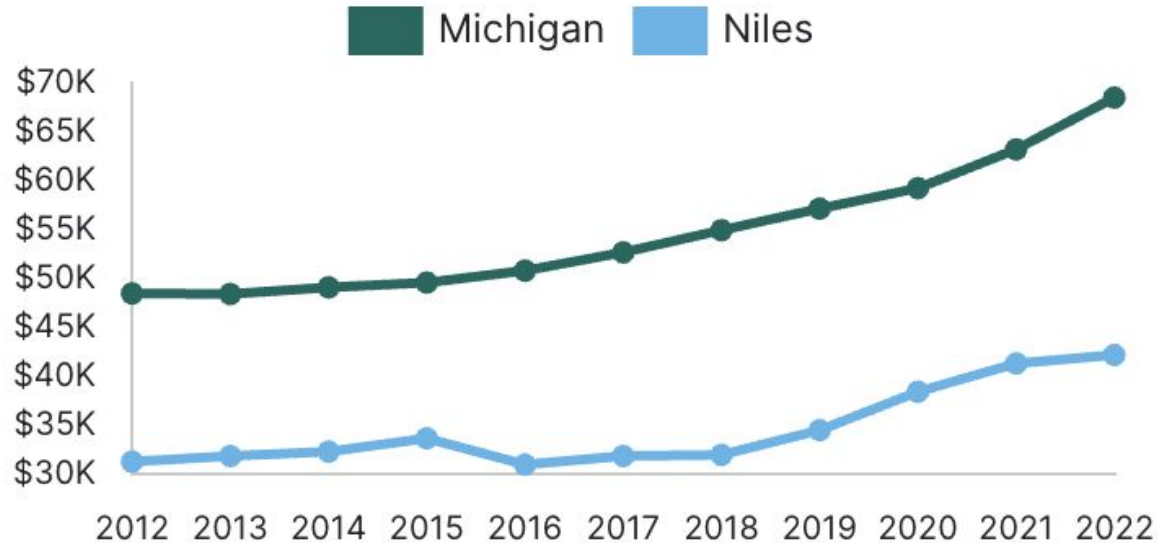
a little less than the figure in United States: 2.5

Population by household type



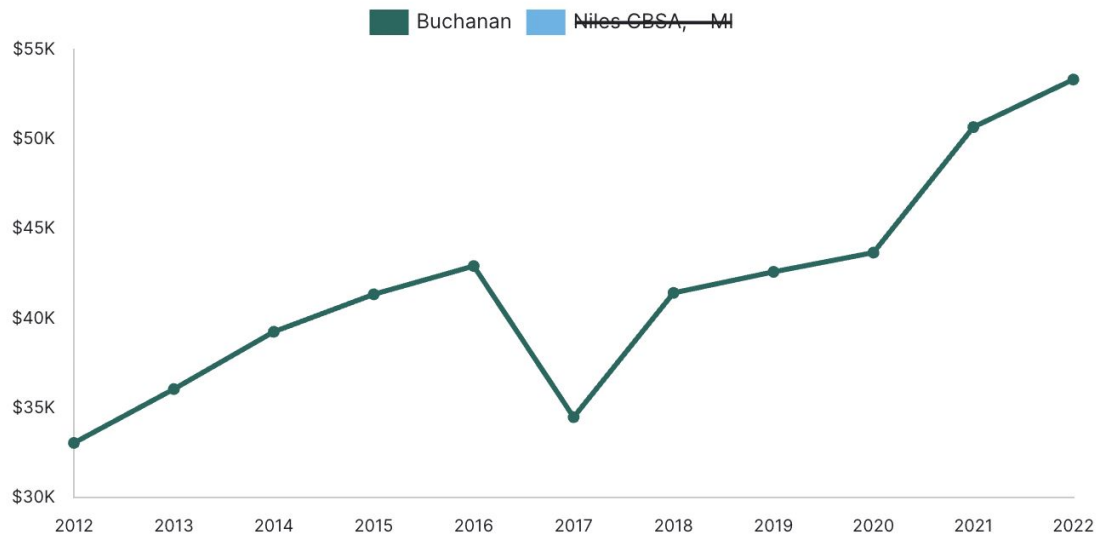
Median Household Income in Niles, Buchanan, and Berrien County

Median Household Income - City of Niles



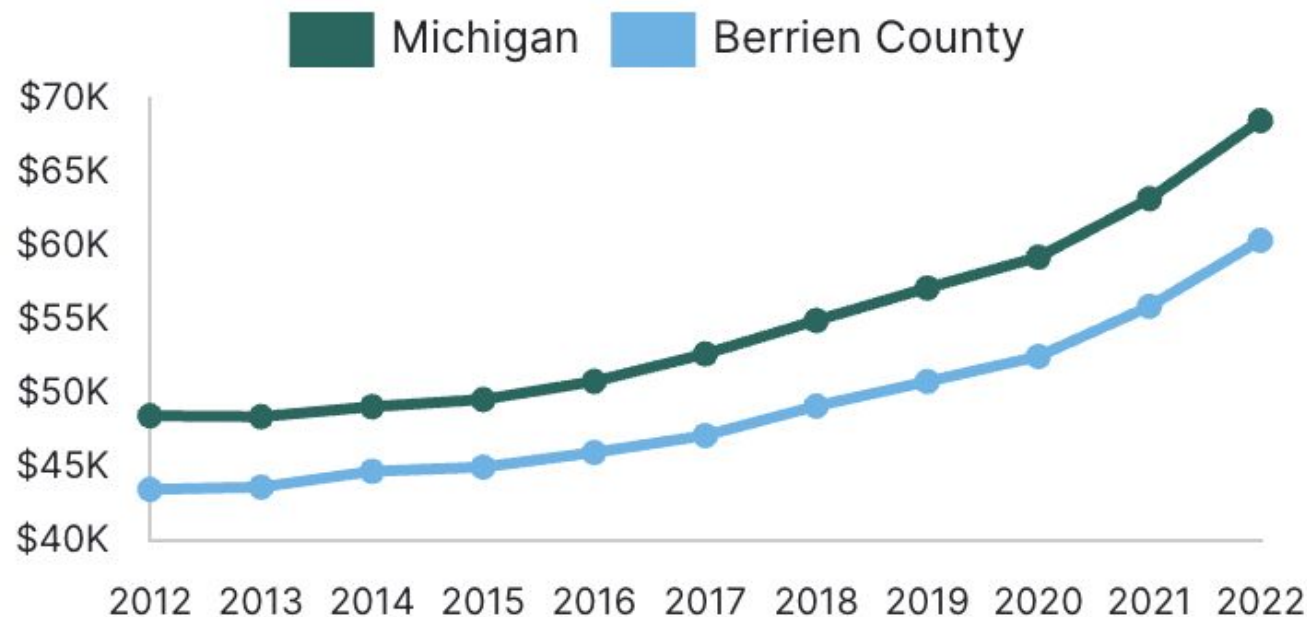
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Michigan	\$48.47K	\$48.41K	\$49.09K	\$49.58K	\$50.8K	\$52.67K	\$54.94K	\$57.14K	\$59.23K	\$63.2K	\$68.51K
Niles	\$31.26K	\$31.84K	\$32.28K	\$33.65K	\$30.96K	\$31.84K	\$31.95K	\$34.49K	\$38.42K	\$41.31K	\$42.18K

Median Household Income - City of Buchanan



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Buchanan	\$33.05K	\$36.05K	\$39.25K	\$41.34K	\$42.92K	\$34.48K	\$41.42K	\$42.59K	\$43.67K	\$50.67K	\$53.33K

Median Household Income - Berrien County



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Michigan	\$48.47K	\$48.41K	\$49.09K	\$49.58K	\$50.8K	\$52.67K	\$54.94K	\$57.14K	\$59.23K	\$63.2K	\$68.51K
Berrien County	\$43.47K	\$43.63K	\$44.7K	\$44.99K	\$45.98K	\$47.13K	\$49.14K	\$50.8K	\$52.5K	\$55.89K	\$60.38K



4. Calculation of AMI score & Results

AMI Score - Berrien County, Buchanan, Niles

General terms/definitions by income level

Workforce Housing = 81% to 120% AMI

Moderate to Low Income = 50% - 80% AMI

Very Low to Extremely Low = 30% - 50% AMI

County	Program	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
Berrien	EXTREMELY LOW	16400	19720	24860	30000	35140	40280	45420	50560
Berrien	VERY LOW (50% AMI)	27300	31200	35100	39000	42150	45250	48400	51500
Berrien	LOW (80% AMI)	43700	49950	56200	62400	67400	72400	77400	82400

AMI	Berrien County	City of Buchanan	City of Niles
Median Income/ Household Size	60380 / 2.4	53330 / 2.3	42180 / 2.3
AMI	Workforce Housing - 81% to 120% AMI	Workforce Housing - 81% To 120% AMI	<u>Moderate to Low Income</u> - 50% to 80% AMI

Suggestions based on the data

- Expand the existing scope of home repair program **in Niles-Buchanan region** - More rounds of home repairs
 - Have a second/ possibly third round of home repair program in Niles or Buchanan (Niles and Buchanan are among the top 10 cities with the oldest median year of construction in Berrien county)
 - Prioritize the city of Niles due to its lower Area Median Income (AMI) scores, indicating higher need.
- Expansion Beyond Niles-Buchanan **to other areas in Berrien County**
 - Primarily focus on the eight other cities in the top 10/15 list of the oldest median construction year.
 - To identify the most in-need cities , calculate AMI score for the cities and make some initial comparisons.

Suggestions based on the data

- Integrate the **energy-efficiency and energy-saving** perspective into the current scope of home repair program– **from home repairs to home energy efficiency update program**
 - Focus on updating outdated heating fuel systems and improving overall energy usage efficiency.
 - Educate homeowners on the benefits of energy efficiency and provide resources for ongoing maintenance.

Rationale behind:

- The ability to attract more funding and grant application opportunities
- Larger pool: there will be more households in need for updates since older house stock means more outdated heating fuel and energy equipment in general
- Long-term: Energy efficiency updates translate to lower utility costs, more comfortable living conditions, and improved quality of life for the household

Important Links:

1. Berrien County Housing Problems Report - 2024
<https://drive.google.com/file/d/1eVtrh1dHVatv3k9lsJtSx5NGL-Dk5rv/view>
2. Berrien County Housing Main Page - GIS
<https://storymaps.arcgis.com/stories/36ad23be06de4e50a42997e505216931>
3. Michigan Housing Data Portal -
<https://mihousingdata.org/?tab=supply>
4. US Census Bureau Data -
[https://data.census.gov/profile/Berrien County, Michigan?g=050XX00US26021#housing](https://data.census.gov/profile/Berrien%20County,%20Michigan?g=050XX00US26021#housing)
5. Dataset on Age of Home -
<https://www.point2homes.com/US/Neighborhood/MI-Demographics.html>



The end.