



# EVERY DAY IS EARTH DAY

Green Legacy Roundtable | Housing  
26 April 2019

Presented by:

Amber Marie Beard | projekt hABitat

Mariah Goode | Door County Land Use Services Department

Virge Temme | Virge Temme Architecture

Moderated by:

Myles Dannhausen, Jr. | Peninsula Pulse



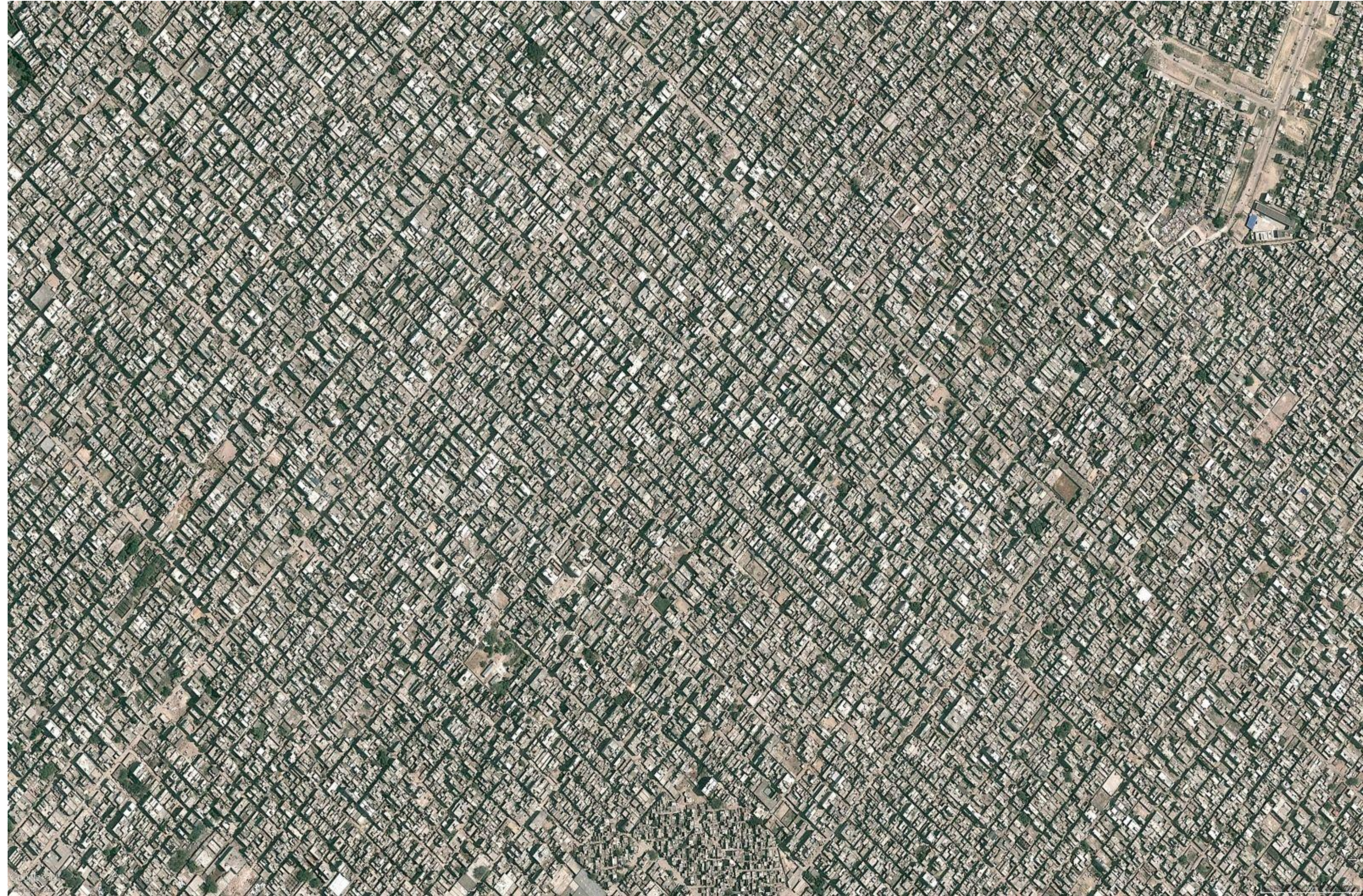
# **GLOBAL HOUSING TRENDS**



## Global Housing Trends – Demand Side

### URBANIZATION

- Migration to urban centers
- 41 megacities by 2030



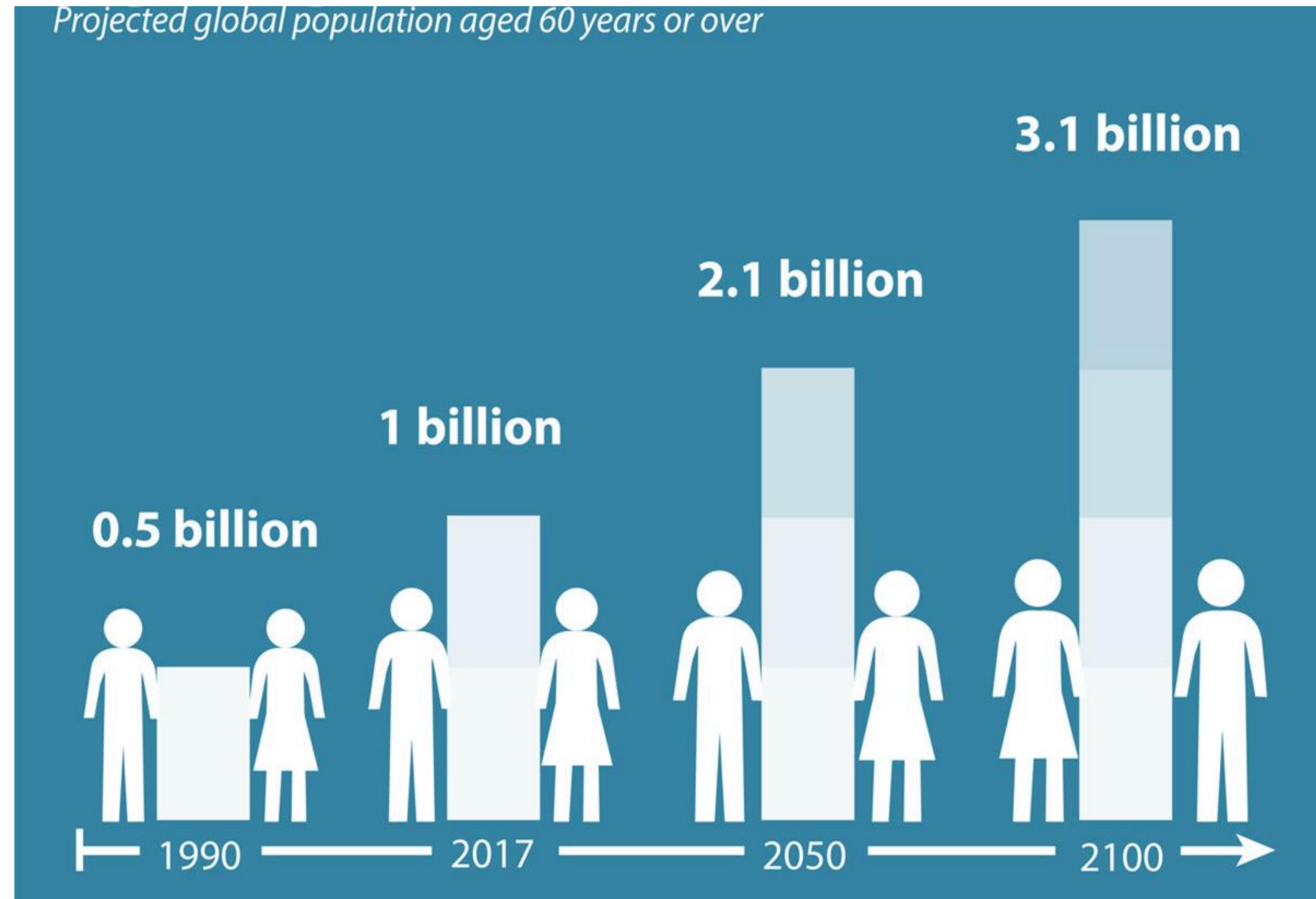
Aerial view of New Delhi, India – anticipated to be the worlds largest city with a population of 39 million residents



## Global Housing Trends – Demand Side

### DEMOGRAPHIC CHANGES

- Shrinking households
- Aging population
- Multiple generations living together





## Global Housing Trends – Demand Side

### DIGITAL ECONOMY

- Online-centric work, play, life
- Popularity of remote work
- Mobile technology, growth in nontraditional jobs and increasing participation in the gig economy are disrupting where and how and for how long people work, impacting their housing decisions. **Residents will favor having work in close proximity and even provided within their housing communities.**





## Global Housing Trends – Demand Side

### SUSTAINABILITY + WELLNESS

- Increasing regulation
- Connection between sustainability and human health
- Increasing demand for sustainable and healthy accommodation
- Shift to “green” and “wellness” lifestyles





## Global Housing Trends – Demand Side

### AFFORDABILITY

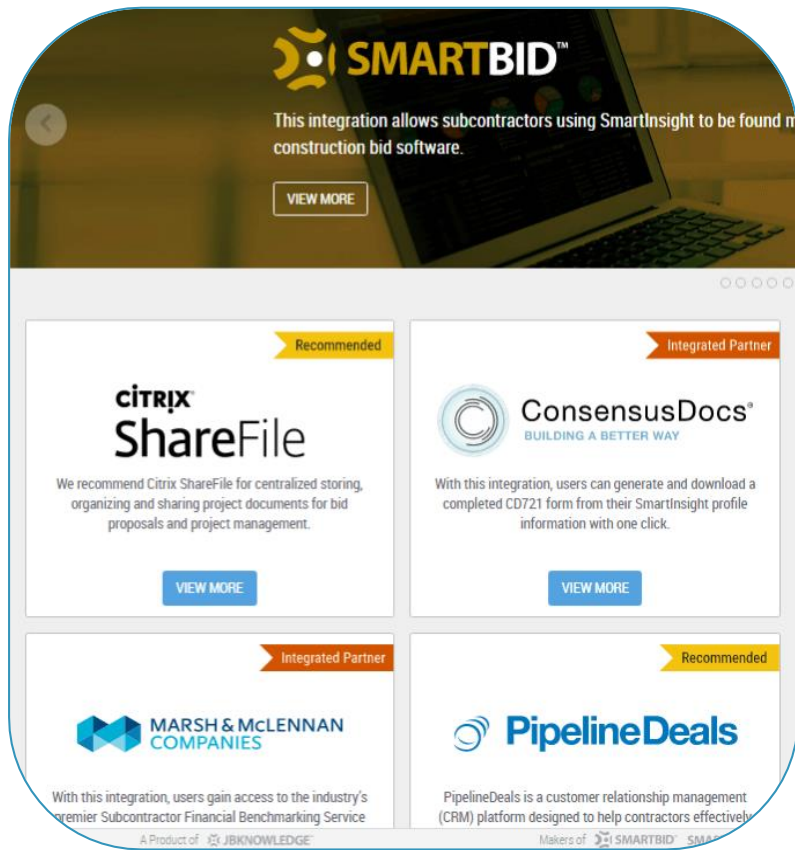
- Issues continue to increase
- Widespread housing shortages
- Lower property ownership
- Increasing income gaps



Bjarke Ingels' firm has completed Dorteavej Residence, an affordable housing development in Copenhagen made up of prefabricated modules stacked on top of one another.



# Global Housing Trends – Supply Side



## CONSTRUCTION TECHNOLOGY

- Digital collaboration tools
- Drones and other onsite devices

## CONSTRUCTION METHODS

- Modular construction
- Prefabrication
- Integrated systems

## BUILDING TECHNOLOGY

- Smart buildings
- Connected homes
- Product Innovations

## ACCESS AND DISTRIBUTION

- Online marketplaces
- New financing sources

## SUPPLIER LANDSCAPE

- Issues continue
- Labor shortages





# **GLOBAL HOUSING TRENDS + AFFORDABILITY**



## Global Housing Trends – Affordability is an Issue for All

- It starts with cities - globally cities are more economically powerful than ever
- This economic power increases demand for their land which in-turn increase housing costs and competition





## Global Affordability Crisis Drivers

- Expensive cities have simply **not built enough homes** to keep up with growth in employment or population
  - Common reasons for not doing so include:
    - NIMBYism
    - restrictive land-use policies
    - constraints of geography
  - Example: Hong Kong
- Rents have increased even faster than incomes
  - Rents in the U.S. increased by **22 percent** on average between 2006 and 2014, while average incomes decreased by **6 percent**
- Escalating rent burdens fall heaviest on the least advantaged
  - In the US almost 50% of all renters are “cost burdened,” spending more than 30% of their income on housing
  - A vicious cycle
- Housing has been financialized and turned into an investment vehicle
  - Creates an oversupply of luxury housing and a lack of affordable – both in developing and developed world





## Global Affordability Crisis Drivers

- **Financialization** - housing is treated as a commodity, a means of accumulating wealth and often as security for **financial instruments that are traded and sold on global markets**
  - Results in housing is increasingly intertwined with flows of global capital; housing markets are now **more responsive to these flows than to local conditions**
- Even though money is poured into housing markets it has not contributed to a significant increase in supply
  - Instead it creates an **increase in ultra-high-end units that are extremely expensive to produce**
- These **issues are systemic in nature** and beyond the control of local markets.
- However, out of these challenges have **risen creative approaches to creating affordable, sustainable and healthy homes which support a higher quality of life.**



Chinese “Ghost Cities” are at the extreme end of using housing a financial instrument but demonstrates just how large an issue it is - Many people buy the property for investment with no intention of ever moving in, so supply significantly outweighed demand.





# **GLOBAL HOUSING TRENDS – NEW HOUSING TYPES**



## Global Housing Trends – New Housing Types

### SHARED

- An alternative approach to affordable housing
- Smaller individual units
- Shared multipurpose facilities (kitchens, dining rooms, gym, etc.)
- Potential for subscription-based or short-term rentals
- Minimizes utility cost and fosters community
- The sharing economy is **wearing away at the divide between public and private space**, requiring tomorrow's housing is integrated into the fabric of the community at large.



"Built with a focus on community and functionality, WeLive enables people to focus on what's most important to them by offering one of the most flexible housing solutions on the market today," said a statement from WeLive. "Simply show up and begin your life without the hassle."



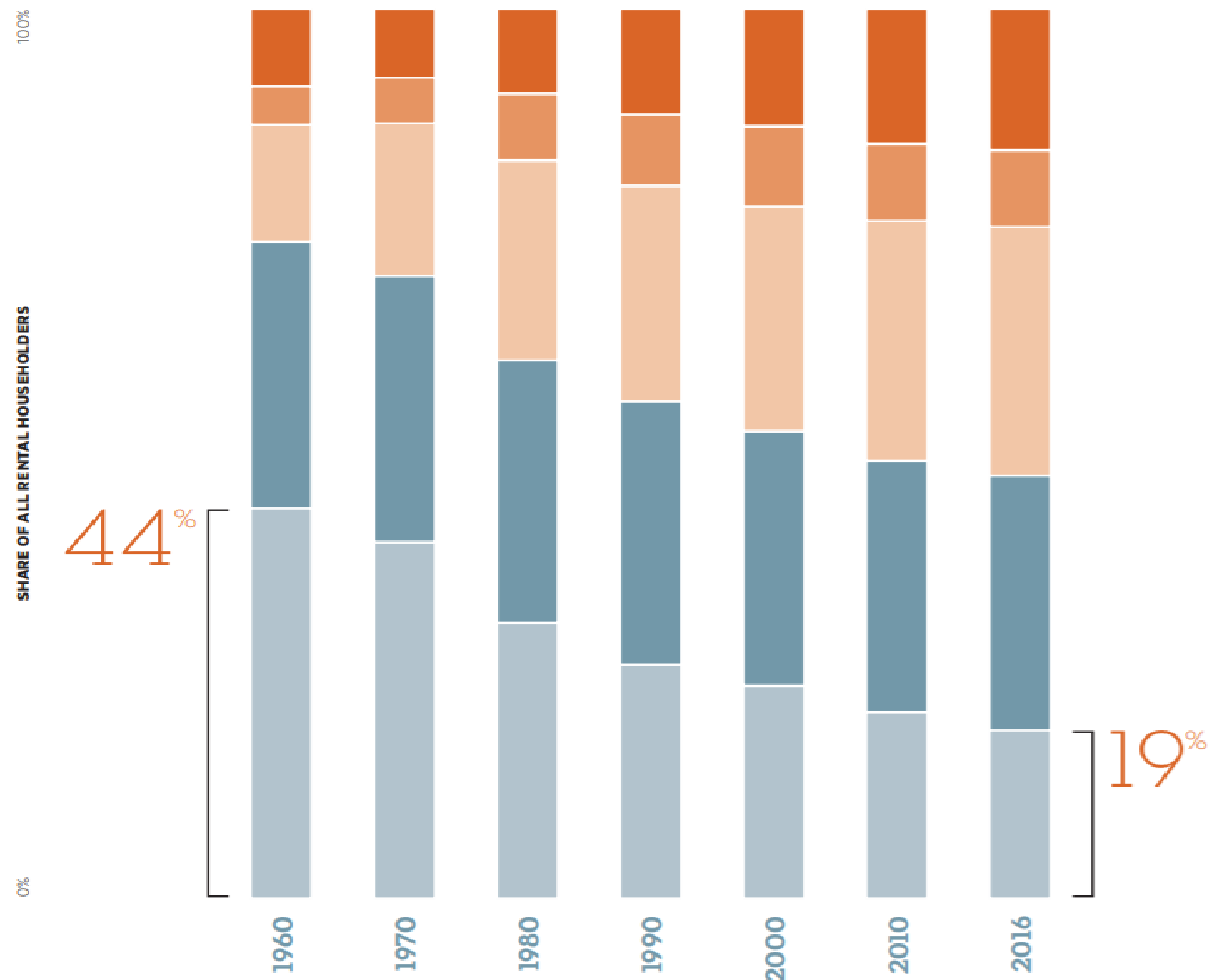
## Global Housing Trends – New Housing Types

### FLEXIBLE

- Driven by aging population and Millennials
- Adjustable building design and functions
- In the US static staple unit plans, such as the typical one- and two-bedroom, have long been the hallmark of the apartment industry, but in the coming years, **apartment communities and units** will have to adapt to serve a greater variety of households and housing needs.
- This will require building in adaptability in physical components of unit construction.

■ MARRIED COUPLES WITH CHILDREN ■ MARRIED COUPLES WITHOUT CHILDREN  
■ LIVING ALONE ■ SINGLE PARENT ■ OTHER

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement (1970–2016)





# Global Housing Trends – New Housing Types

AGREE STRONGLY AGREE

Source: National Multifamily Housing Council, "2018 Consumer Housing Insights Survey" (January 2018)

## WELLNESS + HEALTH

- Built-in wellness amenities – air and water filtration and purification systems
- Sensors to track air, water and lighting quality
- Wellness centers programing for residents in multi-unit dwellings
- Well-being extends beyond physical fitness and nutritious eating habits, however, to include socialization, quality sleep, mental health, and a sense of responsibility to contribute to a more sustainable environment





## Global Housing Trends – New Housing Types

### SUSTAINABLE

- Non-toxic materials
- Sustainable materials
- Biophilic design
- Aims for both efficiency and self-sufficiency (ex. energy consumption reduction and production)
- Passive design
- Green Building Certifications



New Block, a patented “green building solution” – created with affordability and livability in mind, New Block offers a cost-effective strategy for landowners and developers to maximize density on smaller lots, typically two-acre urban infill sites. Elements such as multi-family housing and an abundance of open space are part of New Block’s long-term sustainable concept.



## Global Housing Trends – New Housing Types

### AFFORDABLE

- Modern approaches are looking to address all of these new housing trends
- Compact layout
- Low-cost, inexpensive materials (usually not healthy or sustainable)
- Fast, cost-effective construction



Dorteavej Residence in Copenhagen, which has been recognized for creating generous living spaces on a strict budget through the use of modest materials and prefabricated components





# **THE INTERSECTION OF AFFORDABLE HOUSING WITH GLOBAL HOUSING TRENDS + TYPES**



## The Intersection of Affordable Housing with Global Housing Trends + Types

- Not only do the “cost burdened” have to pay the financial price they **are also most impacted by climate change, air pollution, water pollution, resource scarcity, etc.**
  - Is a house affordable if one can’t afford the utility costs?
  - Or the burden on an occupants health relative to medical bills?





## The Intersection of Affordable Housing with Global Housing Trends + Types

### BENEFITS FOR TENANTS + COMMUNITY

- Can reduce health problems associated with poor-quality housing
- Energy savings increase level of affordability for tenants
- Can improve health outcomes by freeing up family resources for nutritious food and health care expenditures
  - Families paying excessive amounts of their income for housing often have insufficient resources remaining for other essential needs, including food, medical insurance, and health care





## The Intersection of Affordable Housing with Global Housing Trends + Types

### BENEFITS FOR TENANTS + COMMUNITY (cont.)

- Provides families with greater residential stability reducing stress and related adverse health outcomes
- Shared living reduces individual resource consumption, increased financial efficiency and sense of community
- Flexible spaces last the test of time ensuring a longer lifecycle of a building
- Modular and prefabricated buildings can support greater efficiency of building materials with reduced waste





## The Intersection of Affordable Housing with Global Housing Trends + Types

### BENEFITS FOR DEVELOPERS

- Investing in affordable housing with sustainability and wellness features can become a **driver for returns** for building owners by **increasing tenant retention and reducing costs associated with lease turnover**
  - Tenants saving money on utilities will also be less likely to leave the rental in the long run, providing more reliable sources of income
- Investing in housing that is flexible and shares resources could **reduce per square foot development costs** and **attract a whole new demographic of people**.
- While these incentives are great it isn't always enough for developers to specifically create low-income and affordable housing.
- **That's where policy comes in.**







# **HOUSING IN DOOR COUNTY**



## First, Some Definitions...

### AFFORDABLE HOUSING, INDIVIDUAL LEVEL

Housing, including utilities, etc., which costs no more than 30% of your gross household income. (U.S. Department of Housing and Urban Development [HUD])

### AFFORDABLE HOUSING, COMMUNITY LEVEL

Housing which a household of median income can rent or purchase for no more than 28-30% of gross household income, exclusive of other debt.

### MEDIAN HOUSEHOLD INCOME

Income of the middle household on an ordered list of community household incomes, workforce and not; those above earn more, those below earn less. Also called Area Median Income (AMI). Median household income in Door County, 2016: ~\$54,000.

### WORKFORCE HOUSING (SOMETIMES CALLED "ATTAINABLE" HOUSING)

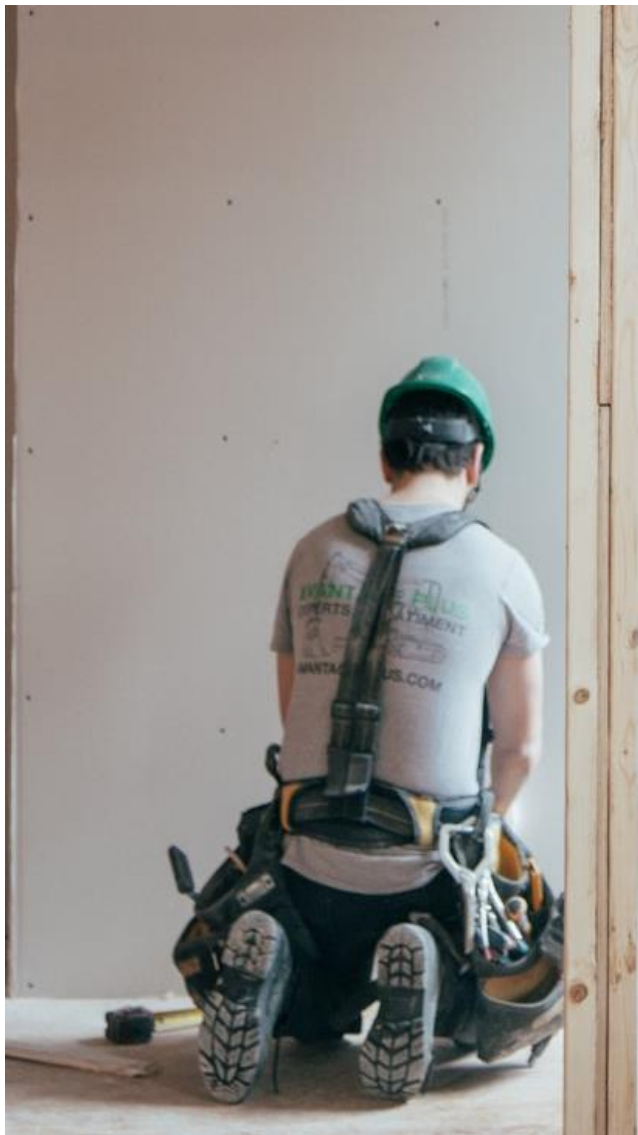
Housing affordable to those earning 60-120% of median household income.



## What Exactly Are Door County's Affordable Housing Issues?



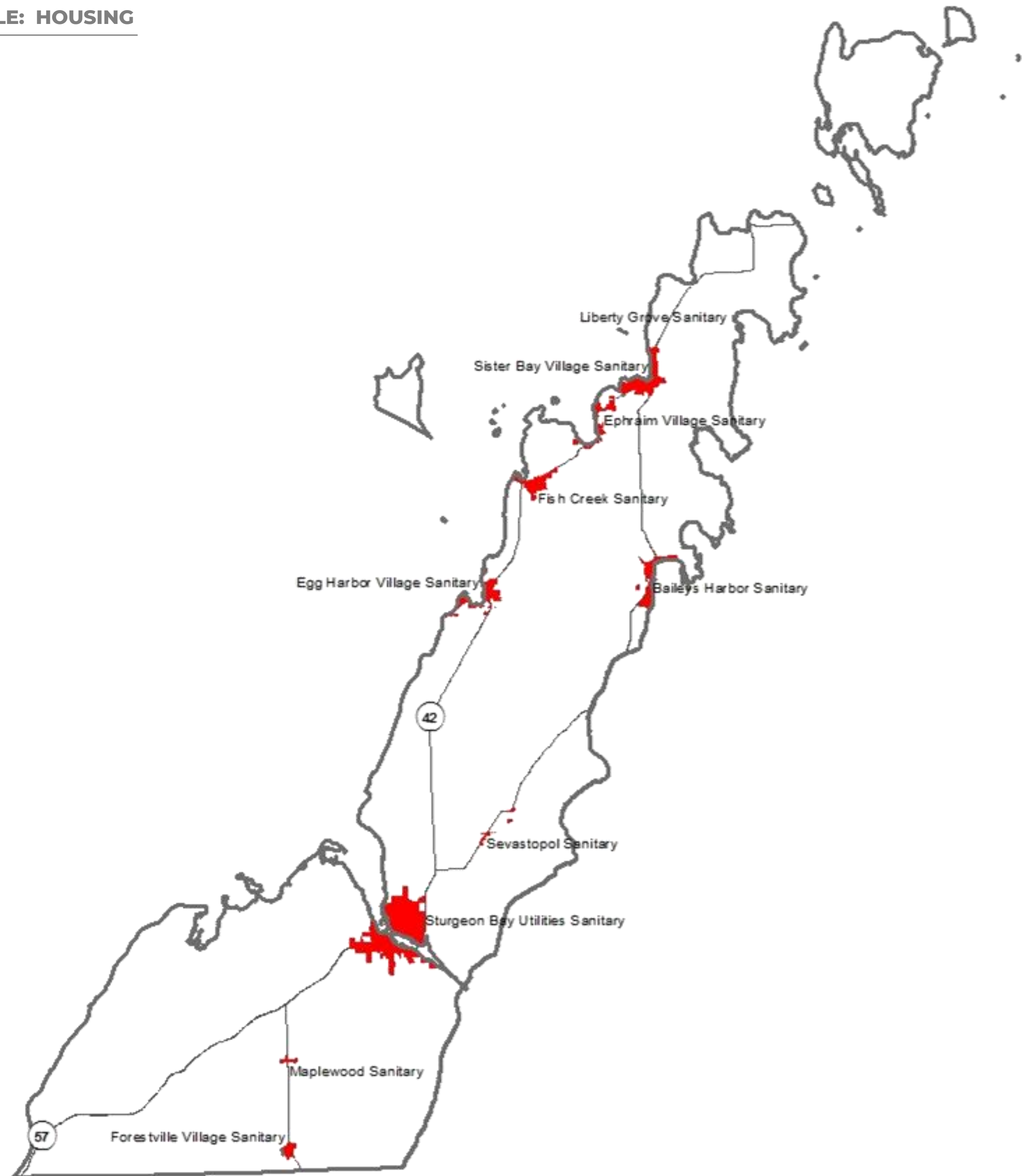
- Long-standing shortage of rental units
- Long-standing shortage of housing for seasonal workers
- Quality of rental and/or seasonal worker housing
- Second home market drives up housing and land costs
- Increased tourism (conversion to transient housing)
- Building code requirements
- Zoning ordinance requirements
- Lack of land designated for multi-family or denser housing types
- Lack of public infrastructure (sewer and water)
- Construction costs always higher here; in 2018 went up everywhere
- More profitable to develop high-end housing
- Shortage of construction industry workers





## Areas Served by Public Sewer

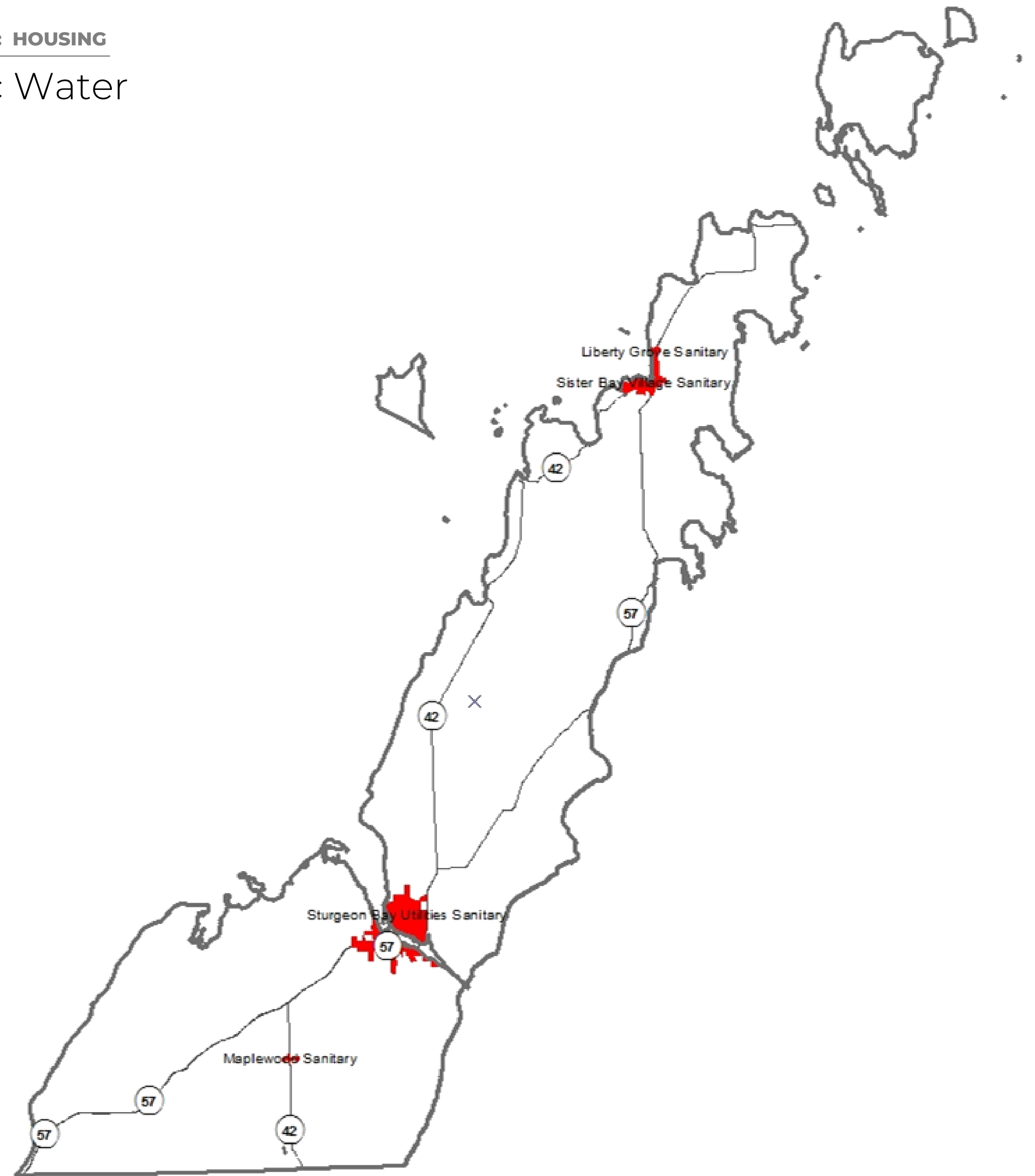
- Sister Bay/Liberty Grove
- Ephraim
- Fish Creek (Gibraltar)
- Village of Egg Harbor
- Baileys Harbor
- Institute & Valmy (Sevastopol)
- City of Sturgeon Bay
- Maplewood (Forestville)
- Village of Forestville





## Areas Served by Public Sewer + Public Water

- Sister Bay/Liberty Grove
- City of Sturgeon Bay
- Maplewood (Forestville)





## Other Related Issues in Door County

- Employment opportunities not as varied or numerous as in other areas
- Seasonal tourism economy
- Transportation availability and costs
- Day care availability and costs
- Declining school enrollment
- Aging population





Door County’s Aging Population

POPULATION PROJECTIONS BY AGE GROUP

	Door County		State	
Age Group	2010	2040	2010	2040
0 - 24	23%	18%	33%	30%
25 - 64	54%	44%	53%	46%
65+	23%	38%	14%	24%
Total Population	100%	100%	100%	100%

Source: Wisconsin Department of Administration,  
Population Projections, Vintage 2013.



United Way ALICE



United Way  
of Door County

# MEET ALICE

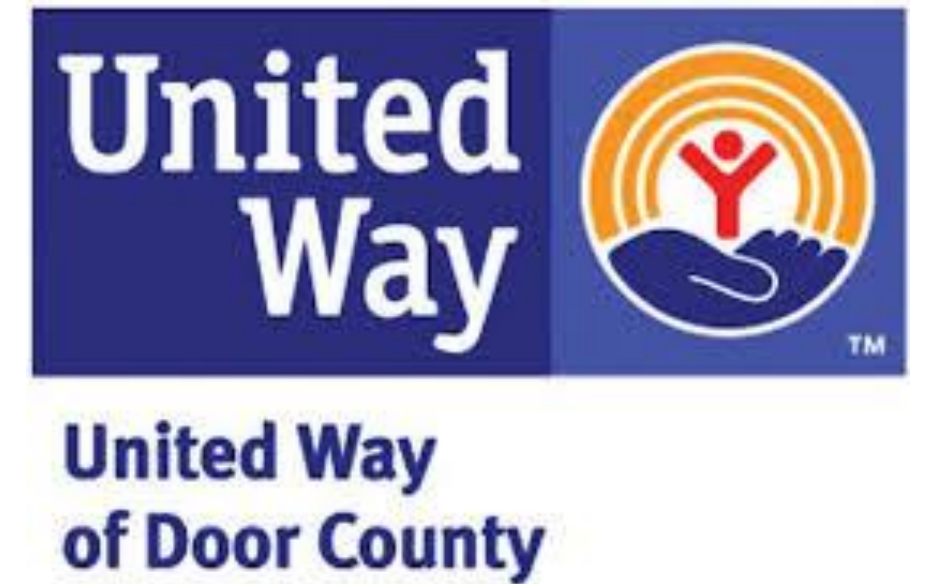
Asset Limited, Income Constrained, Employed





## Who or What is ALICE?

- Asset-Limited, Income-Constrained, & Employed
- A 17-state United Way collaborative project/study
- ALICE residents/households: above the federal poverty level, but budgets do not reach “household stability” level. An ALICE household lives on a “survival budget.”

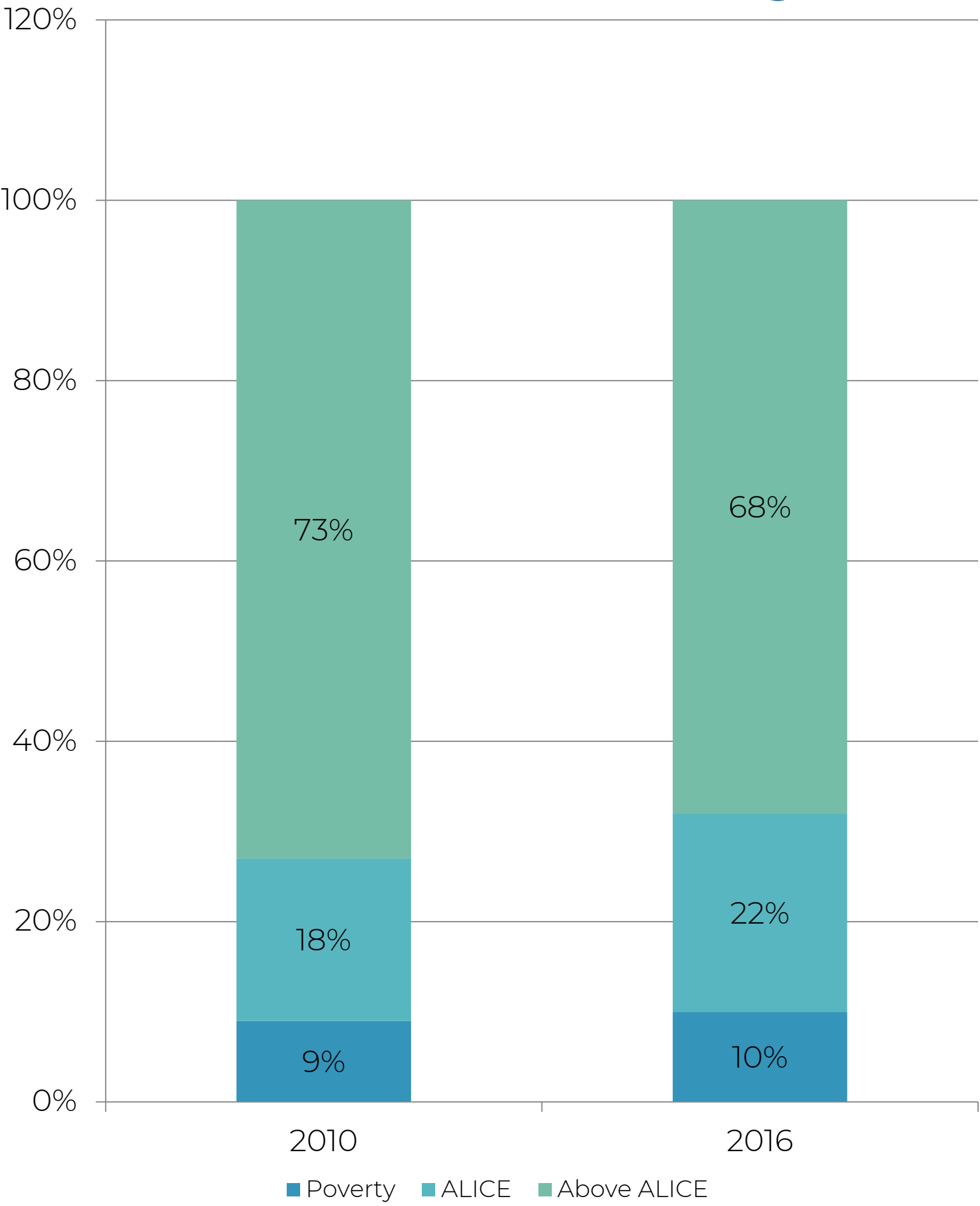


Survival and stability budgets are derived for different household configurations, and account for spending on:

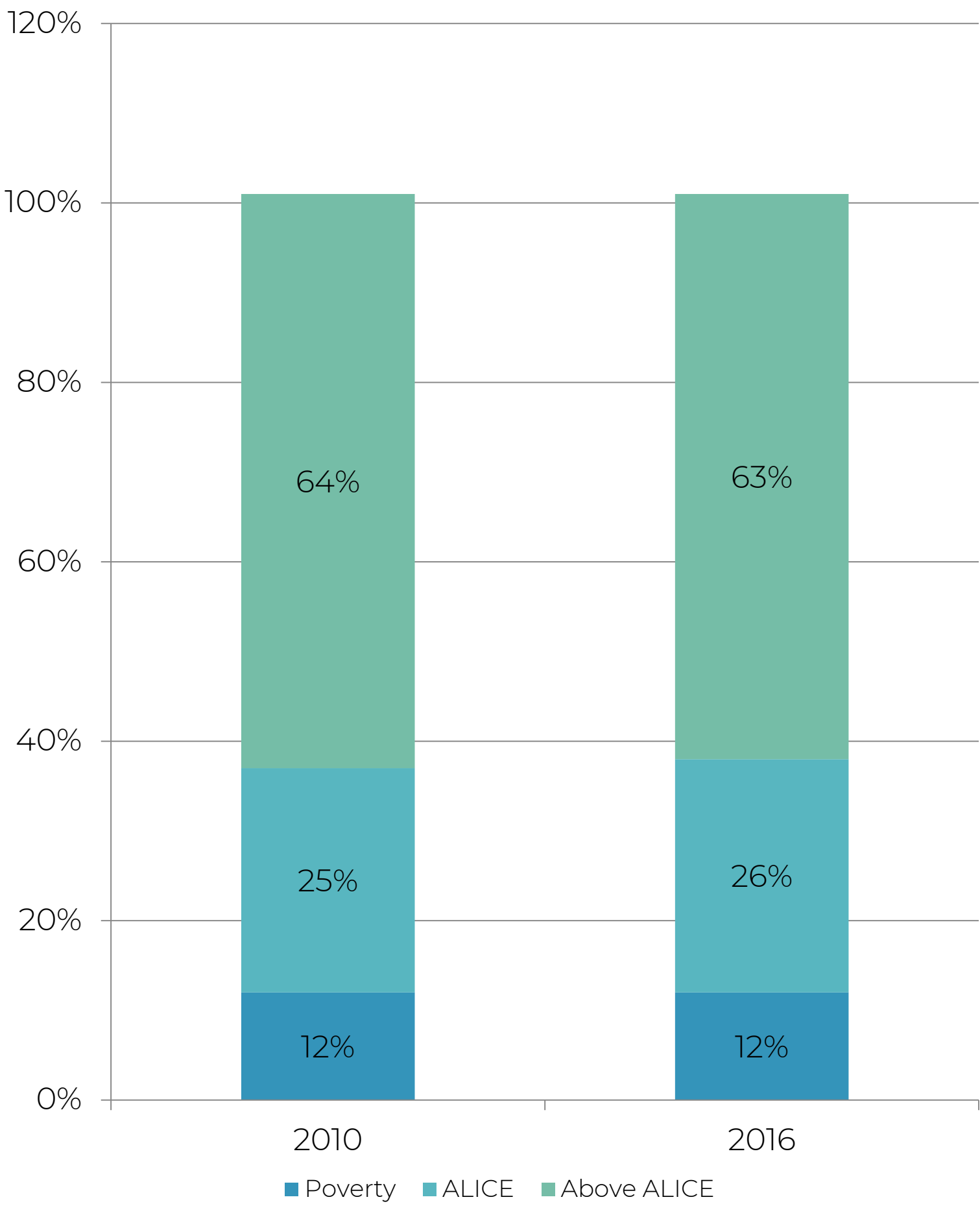
- Housing
- Food
- Transportation
- Healthcare
- Technology
- Childcare
- Savings
- Taxes
- Miscellaneous



# Door County



# WI - Statewide



- 2016 Door County “survival” budgets: \$19,956 - \$57,984 (ALICE minimum)
- 2016 Door County “stability” budgets: \$33,168 - \$107,220 (above ALICE)

*Ranges = single adult household to two adults plus an infant and a preschooler.*



# Housing Affordable for Door County Median Income Households

According to HUD, \$1,350 per month is affordable for housing for Door County’s median income households:

- \$54,000 (AMI) divided by 12 months = \$4,500.
- 30% of \$4,500 = \$1,350.

## Realistically...

	ALICE Survival	ALICE Stability
Monthly Income	\$1,663 – 4,832	\$2,764 – 8,935
Housing allocation	\$500 – 733	\$778 – 1,078

*Ranges = single adult household to two adults plus an infant and a preschooler.*



Door County Home Purchase Costs

2018 Door County Housing Sales Statistics

(Source: Door County MLS)

Market Category	Number of Sales	Average Price	Median Price	Price Range
All housing units				
Northern Door	370	\$376,568	\$280,000	\$45,000 - \$3,100,000
Sturgeon Bay	147	\$184,380	\$154,000	\$49,900 - \$1,300,000
Southern Door	82	\$226,709	\$207,500	\$26,500 - \$556,000
Inland housing units (no water view, no waterfront)	-	-	-	-
Northern Door	261	\$268,137	\$250,000	\$45,000 - \$1,000,000
Sturgeon Bay	129	\$161,146	\$148,500	\$49,900 - \$395,000
Southern Door	50	\$195,014	\$163,500	\$26,500 - \$425,000

In 2018, 61 homes were sold county-wide for between \$60,000 - \$125,000. 146 were between \$125,000 - \$199,999.



## Typical Mortgage Payments, 2018 Median Homes (*waterfront and view excluded*)

Northern Door (\$250,000 median):

\$1,585/month

Central Door (\$148,500 median):

\$1,056/month

Southern Door (\$163,500 median):

\$1,135/month

### **Home loan assumptions:**

- 10% down (note: many put only 5% down)
- 30 year mortgage
- 5% interest
- \$2,400 property taxes
- \$1,000 homeowner's insurance



# Door County Entry-Level Worker Incomes

County patrol officer:	\$56,160
Registered nurse (skilled nursing facility):	\$55,162
County-employed social workers, nurses:	\$48,318
Elementary teacher:	\$36,000
Welder, cutter, solderer:	\$32,000
Construction laborer:	\$28,030
Hotel/motel clerk:	\$23,500
Cook:	\$20,400

Sources: Wisconsin Department of Workforce Development (2017 figures)  
Door County Medical Center (April 2019)  
Door County Human Resources Department (April 2019)



Worker Incomes: Patrol Officer

	No Debt	Student Loan Debt
Entry-level wage		\$56,160
÷ 12 months		\$4,680
Student loan payment*	--	\$108
Monthly spending budget	\$4,680	\$4,572
Multiplied by 30%	\$1,404**	\$1,372
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$181	\$213
Central Door: \$1,056	\$348	\$316
Southern Door: \$1,135	\$269	\$237

\*Associates degree average student loan debt \$9,900, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Registered Nurse

	No Debt	Student Loan Debt
Entry-level wage	\$55,162	
÷ 12 months	\$4,597	
Student loan payment*	--	\$210
Monthly spending budget	\$4,597	\$4,387
Multiplied by 30%	\$1,379**	\$1,316
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$206	\$269
Central Door: \$1,056	\$323	\$260
Southern Door: \$1,135	\$244	\$181

\*Bachelors degree average student loan debt \$19,162, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: County Social Worker, Nurse

	No Debt	Student Loan Debt
Entry-level wage		\$48,318
÷ 12 months		\$4,027
Student loan payment*	--	\$210
Monthly spending budget	\$4,027	\$3,817
Multiplied by 30%	\$1,208**	\$1,145
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$377	\$440
Central Door: \$1,056	\$152	\$89
Southern Door: \$1,135	\$73	\$10

\*Bachelors degree average student loan debt \$19,162, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Elementary Teacher

	No Debt	Student Loan Debt
Entry-level wage		\$36,000
÷ 12 months		\$3,000
Student loan payment*	--	\$210
Monthly spending budget	\$3,000	\$2,790
Multiplied by 30%	\$900**	\$837
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$685	\$748
Central Door: \$1,056	\$156	\$219
Southern Door: \$1,135	\$235	\$298

\*Bachelors degree average student loan debt \$19,162, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Welder/Cutter/Solderer

	No Debt	Student Loan Debt
Entry-level wage		\$32,000
÷ 12 months		\$2,667
Student loan payment*	--	\$108
Monthly spending budget	\$2,666	\$2,559
Multiplied by 30%	\$800**	\$768
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$785	\$817
Central Door: \$1,056	\$256	\$288
Southern Door: \$1,135	\$335	\$367

\*Associates degree average student loan debt \$9,900, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Construction Laborer

	No Debt	Student Loan Debt
Entry-level wage	\$28,030	
÷ 12 months	\$2,336	
Student loan payment*	--	\$108
Monthly spending budget	\$2,336	\$2,228
Multiplied by 30%	\$701**	\$668
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$884	\$917
Central Door: \$1,056	\$355	\$388
Southern Door: \$1,135	\$434	\$467

\*Associates degree average student loan debt \$9,900, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Hotel/Motel Clerk

	No Debt	Student Loan Debt
Entry-level wage	\$23,500	
÷ 12 months	\$1,958	
Student loan payment*	--	\$108
Monthly spending budget	\$1,958	\$1,850
Multiplied by 30%	\$587**	\$555
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$998	\$1,030
Central Door: \$1,056	\$469	\$501
Southern Door: \$1,135	\$548	\$580

\*Associates degree average student loan debt \$9,900, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Worker Incomes: Cook

	No Debt	Student Loan Debt
Entry-level wage		\$20,400
÷ 12 months		\$1,700
Student loan payment*	--	\$108
Monthly spending budget	\$1,700	\$1,592
Multiplied by 30%	\$510**	\$478
Median home mortgage payment <b>gap/surplus</b>		
Northern Door: \$1,585	\$1,075	\$1,107
Central Door: \$1,056	\$546	\$578
Southern Door: \$1,135	\$625	\$657

\*Associates degree average student loan debt \$9,900, repaid over 10 years @ 5.8% interest

\*\* Monthly affordable housing budget per HUD



Door County Worker Incomes: Monthly Affordability Gap for Home Purchase, Summary by Job

Lower number in each range is for those with no student loan debt.  
Higher number is for those with average student loan debt.

Job	Northern	Central	Southern
County Patrol Officer	\$181 - \$213	\$316 - \$348	\$237 - \$269
Registered Nurse (skilled nursing facility)	\$206 - \$269	\$260 - 323	\$181 - \$244
County-Employed Social Worker, Nurse	\$377 – 440	\$89 – 152	\$10 - 73
Teacher	\$685 – 748	\$156 – 219	\$235 – 298
Welder/Cutter/Solderer	\$785 – 817	\$256 – 288	\$335 – 367
Construction laborer	\$884 – 917	\$355 – 388	\$434 – 467
Hotel/motel clerk	\$99 – 1,030	\$469 – 501	\$548 – 580
Cook	\$1,075 – 1,107	\$546 – 578	\$625 – 657



Rents in Door County

	Efficiency	One-Bedroom	Two-Bedroom	Three-Bedroom	Four-Bedroom
HUD FMR 2018*	\$493	\$588	\$718	\$974	\$978
Sister Bay**			\$1,160-1,185 \$1,275-1,325		
Sturgeon Bay**		\$815  \$845 \$725 \$675 \$1,110 \$693  \$845-895	\$1,025  \$975 \$1,125 \$870 \$1,545 \$917  \$975-1,025	  \$1,145   \$1,800+  \$1,095-1,145	

\* HUD FMR = U.S. Housing & Urban Development Fair Market Rent.

\*\* Source = ApartmentFinder.com, April 11, 2019

Note: Figures are not included for the 21 of 30 ApartmentFinder listings showing no availability.



Worker Incomes Compared to Rents

Housing Budget	Lowest-Priced Available Apartment	Highest-Priced Available Apartment
1 bedroom rent in City	\$675	\$1,110
Patrol Officer		
No debt: \$1,404	\$729	\$294
With debt: \$1,372	\$697	\$262
Registered Nurse		
No debt: \$1,379	\$704	\$269
With debt: \$1,316	\$641	\$206
County Social Worker, Nurse		
No debt: \$1,208	\$533	\$98
With debt: \$1,145	\$470	\$35



Worker Incomes Compared to Rents (continued)

Housing Budget	Lowest Priced Available Apartment	Highest Priced Available Apartment
1 bedroom rent in City	\$675	\$1,110
Elementary teacher		
No debt: \$900	\$225	\$210
With debt: \$837	\$162	\$273
Welder, cutter, solderer		
No debt: \$800	\$125	\$310
With debt: \$768	\$93	\$342
Construction laborer		
No debt: \$701	\$26	\$409
With debt: \$668	\$7	\$442



Worker Incomes Compared to Rents (continued)

Housing Budget	Lowest Priced Available Apartment	Highest Priced Available Apartment
1 bedroom rent in City	\$675	\$1,110
Hotel/motel clerk		
No debt: \$587	\$88	\$523
With debt: \$555	\$120	\$555
Cook		
No debt: \$510	\$165	\$600
With debt: \$478	\$197	\$632



## **PAST AND ON-GOING WORK**

- Door County Economic Development Corporation (DCEDC) Attainable Housing Committee (est. ~2000)
- 2-3 housing summits
- Several studies, rental housing inventories
- CDBG funds
- Habitat for Humanity, Lakeshore CAP, DC Housing Authority, USDA, WHEDA
- County, city, villages
- Developers, Door County Board of REALTORS
- Employers
- Educational efforts

## **NEW EFFORTS**

- AECOM study commissioned by DCEDC (completed 2019)
- DCEDC Symposium (February 2019)
- County, city, villages, towns
- NeighborWorks Green Bay
- Reinvigorated housing trust (Door County Housing Partnership)
- Interfaith Prosperity Coalition



## AECOM Door County Housing Study 2019

### **QUANTIFY THE PROBLEM. RECOMMEND STRATEGIES.**

Analysis by geographic area:

- Northern Door (everything north of Sevastopol)
- Central Door (City of Sturgeon Bay, Towns of Sturgeon Bay, Sevastopol, and Nasewaupee)
- Southern Door (Clay Banks, Forestville Town, Forestville Village, Union, Gardner)

Analysis within each area on three topics:

- Year-round workforce housing (60-120% of AMI; for Door County in 2016, \$32,400-\$64,800)
- Year-round senior housing (living independently)
- Seasonal housing (beds)



Workforce Rental Apartments “Needed” But Not Constructed, 2010-2017:

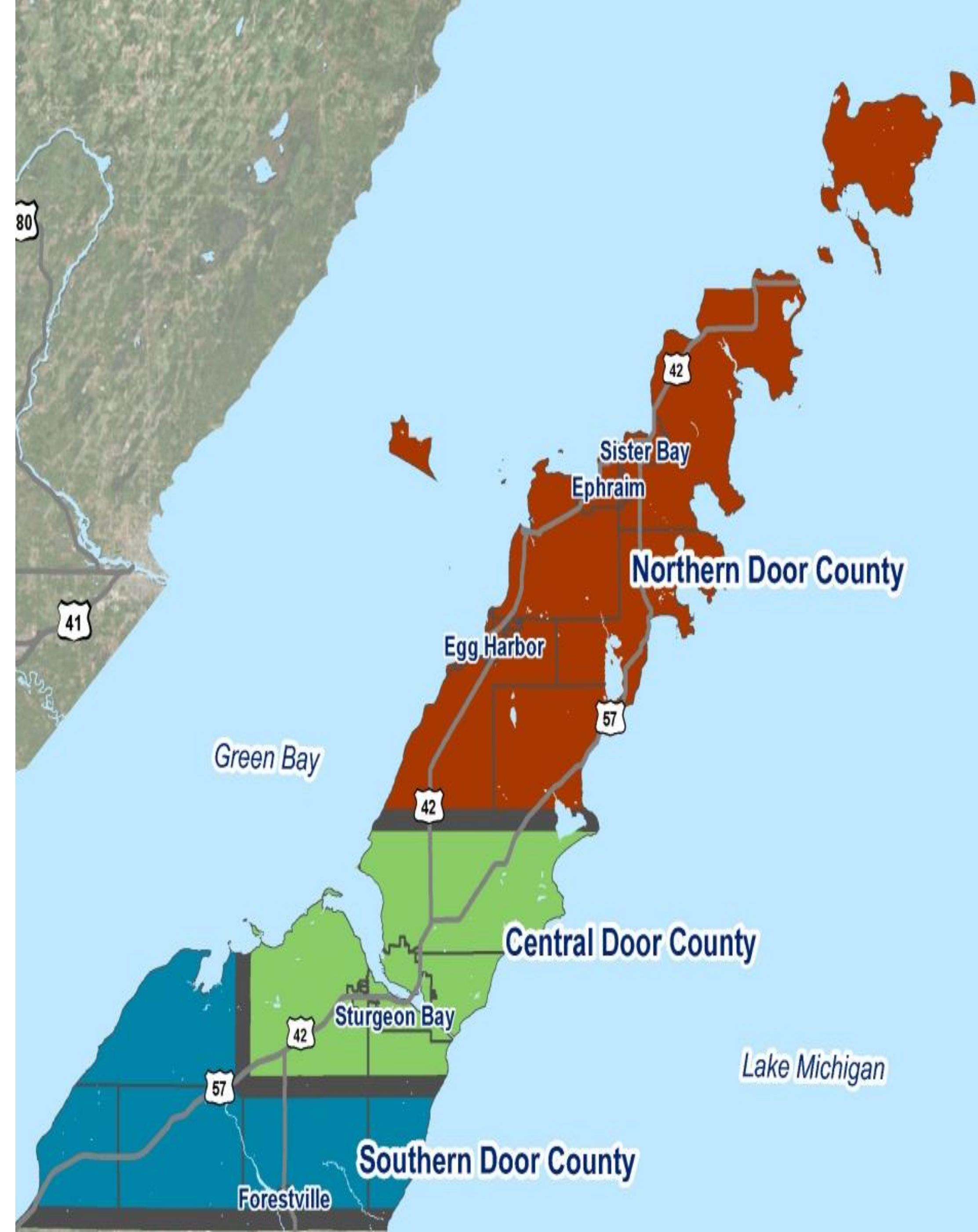
Northern Door: 140  
Central Door: 330

Workforce Rental Apartments Needed, 2018-2023:

Northern Door: 65  
Central Door: 45

*Rents need to be generally between \$500-\$1,000/month, with more than half in the \$500-\$799 range.*

*Southern Door was found to not be lacking in apartments now, nor projected to be in the next five years.*



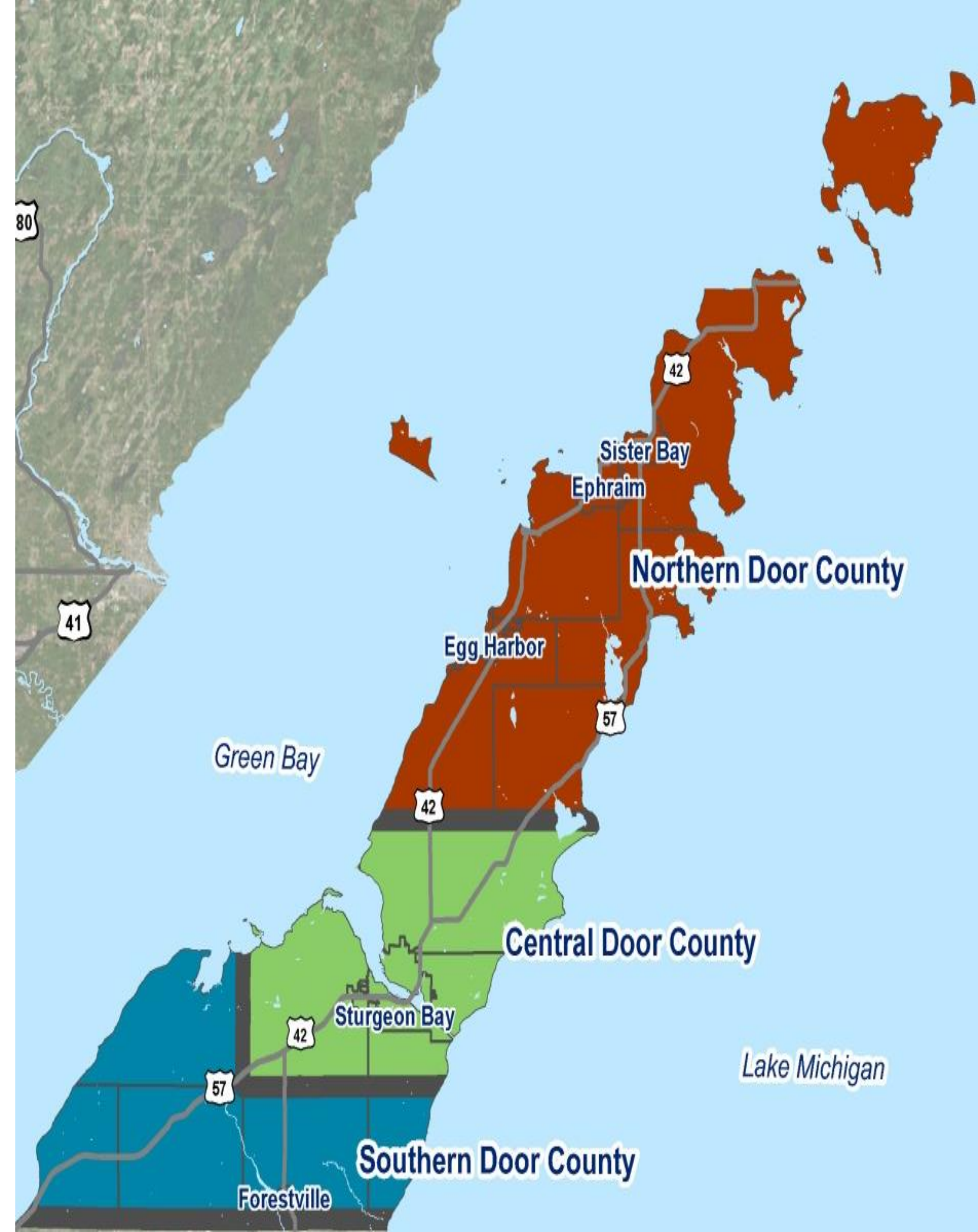


Workforce Owner-Occupied Units Needed, 2018-2023:

Northern Door: 40  
Central Door: 30

*All but five in each area need to be priced between \$60,000-\$124,999, and 75-80% should be single-family residences.*

*Southern Door was determined to not need any affordable owner-occupied homes for workforce households beyond what would be expected to be available in the next five years.*





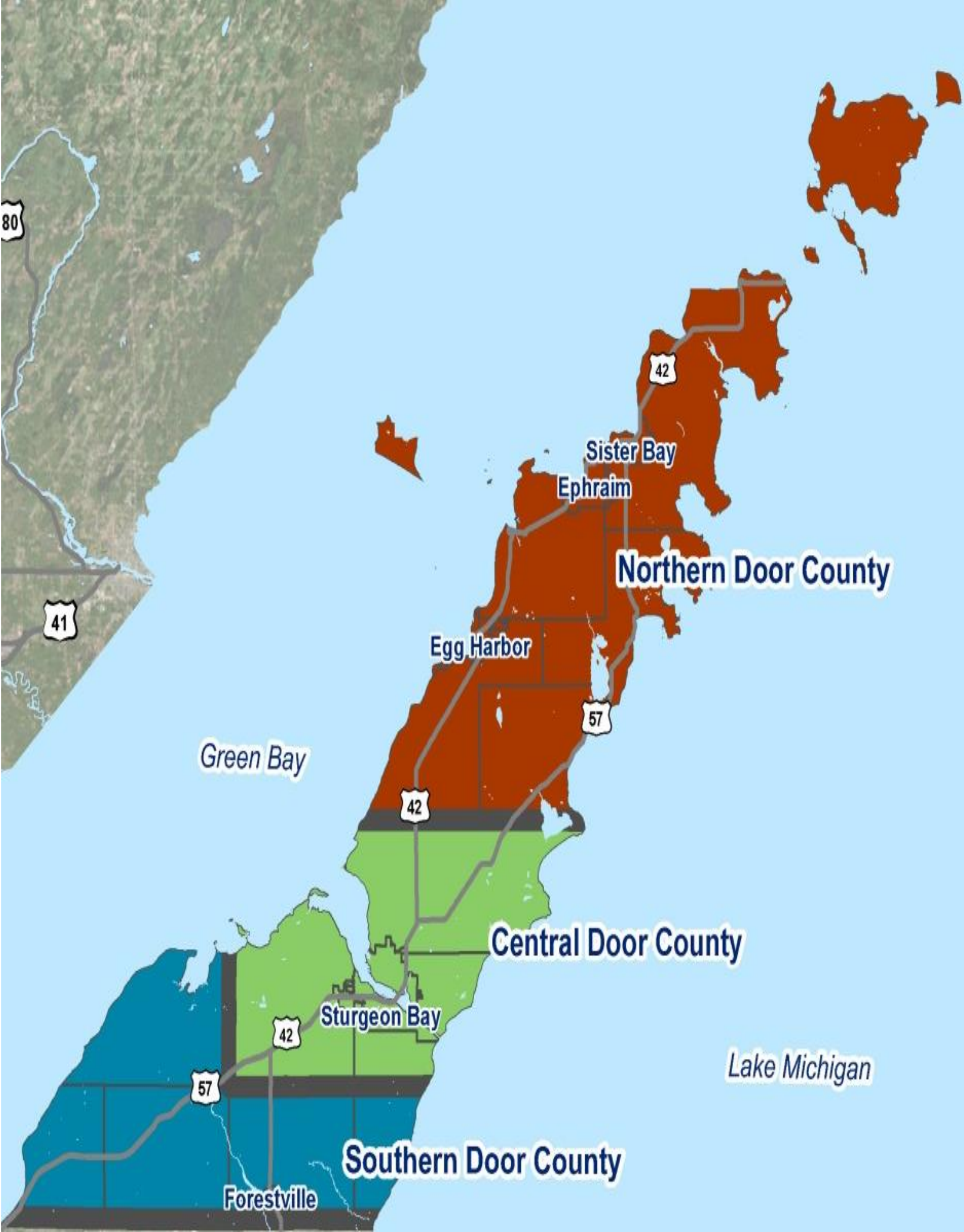
SENIOR HOUSING NEEDED,  
2018-2023

RENTAL APARTMENTS

NORTHERN DOOR:	60
CENTRAL DOOR:	135
SOUTHERN DOOR:	5

OWNER-OCCUPIED HOMES

NORTHERN DOOR:	295
CENTRAL DOOR:	275
SOUTHERN DOOR:	5





SEASONAL HOUSING NEEDED (BEDS)

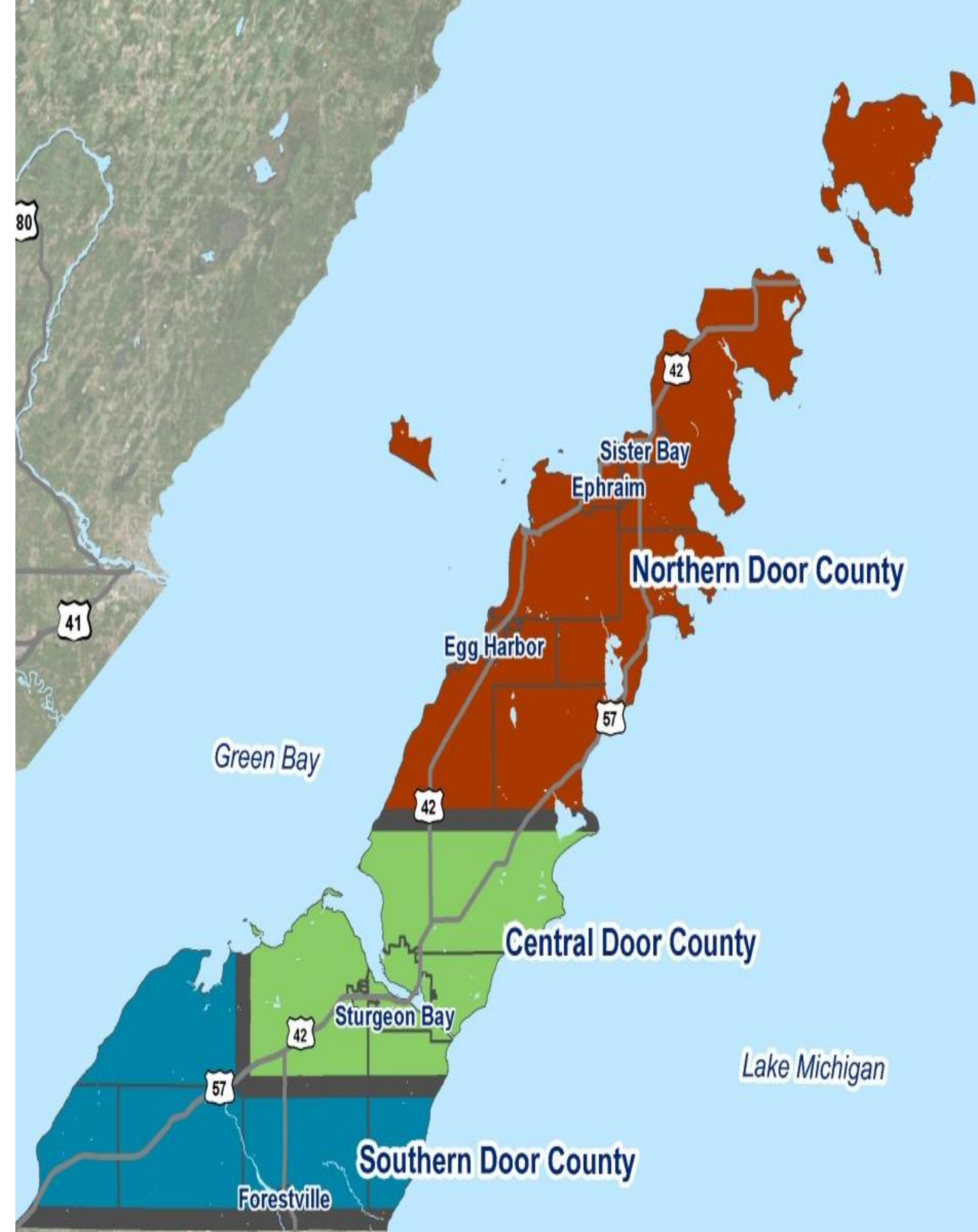
SHORTAGE, 2010-2017

NORTHERN DOOR:	200
CENTRAL DOOR:	205
SOUTHERN DOOR:	50

PROJECTED NEED, 2018-2023

NORTHERN DOOR:	70
CENTRAL DOOR:	40
SOUTHERN DOOR:	5

*NO ANALYSIS WAS PROVIDED REGARDING  
RECOMMENDED RENT LEVELS.*





## AECOM's Recommended Strategies

### Funding

- Allocation of municipal TIF proceeds supporting affordable housing
- Establishment of special real estate transfer taxes and impact fees
- Establishment of special sales tax and hotel rates or Premier Resort Area Taxes
- Access federal and state tax credit, grant, and loan programs
- Generated income from rental properties or property sales

### Administration: Public, Private, and Public-Private Partnerships

- Door County Economic Development Corporation (DCEDC)
- Municipal staff
- DC Housing Authority
- Local units of government
- Door County Tourism Zone Commission
- NeighborWorks Green Bay
- Housing trust or similar organization



## AECOM's Recommended Strategies (continued)

### Specific Actions

- Amend zoning codes to allow higher/more flexible densities, taller buildings, less public hearings
- With local governments, identify properties to proactively rezone and/or (re)develop for housing, esp. on or near public sewer & water
- Evaluate potential expansion of public sewer and water facilities
- Consider dorm(s), like constructed in Dells area, for seasonal beds
- Encourage employer-assisted programs
- Enhance trades curriculum at NWTC
- Expand county GIS layers to include housing layer: unit count, occupancy type, unit condition and features, etc.
- 100% count of seasonal beds; ID properties to be used for more
- Annual outreach to owners of 9,990 seasonally occupied units
- On-line clearinghouse listing available 12-month rental properties



## **ALLOWANCES ALREADY IN PLACE**

- Small-lot residential zoning districts
- Single-family homes
- Secondary dwelling units
- Accessory residences
- Duplexes
- Multiple occupancy developments
- Conservation subdivisions
- Campgrounds



## Secondary Dwelling Unit Example (In Conjunction with Single-Family Use)



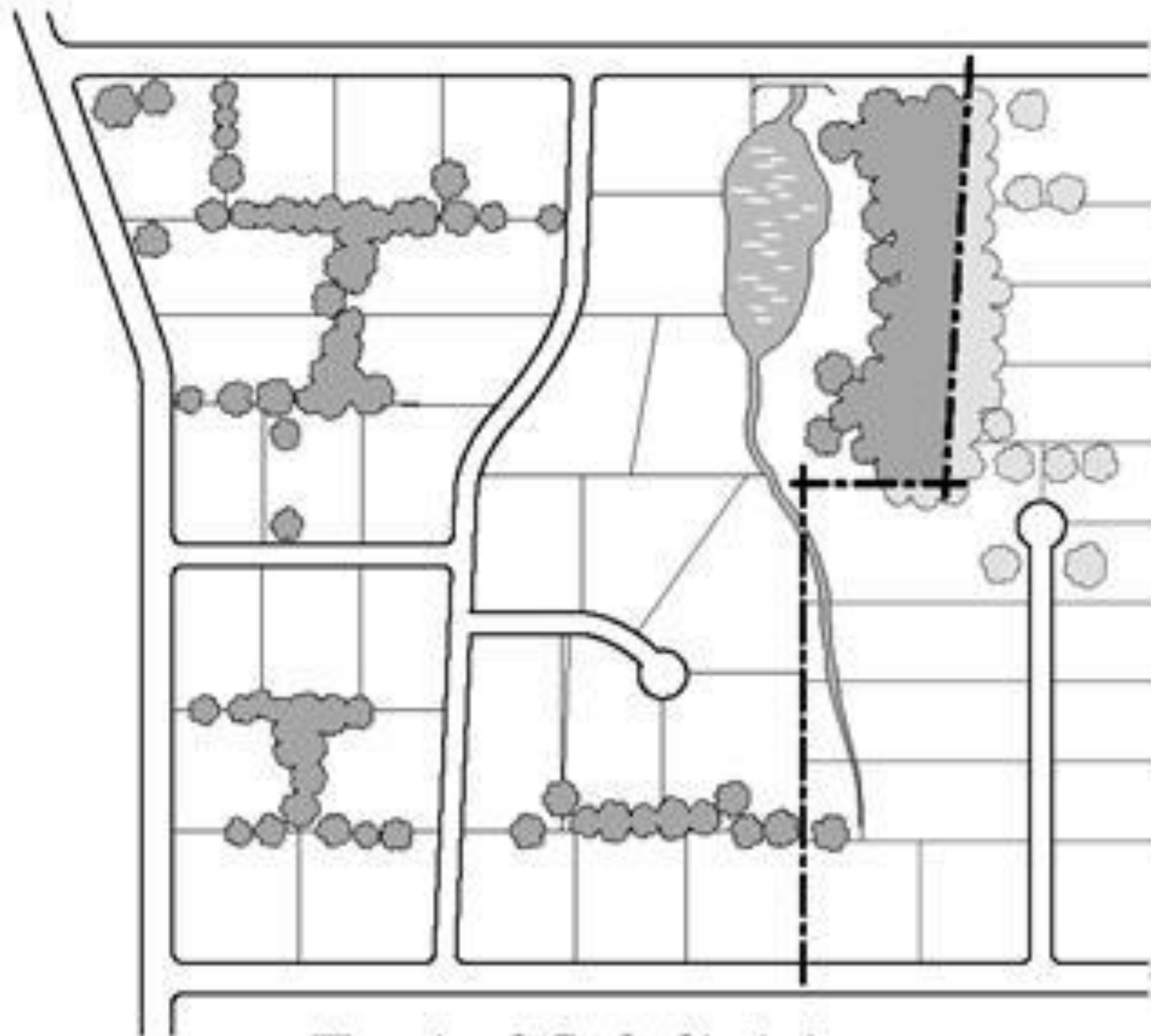


## Accessory Residence Examples (In Conjunction with Commercial Use)





## Conservation Subdivision Examples



Typical Subdivision



Cluster or Conservation Subdivision



## Allowances Already in Place (Continued)

### **ALLOWANCES ALREADY IN PLACE (CONTINUED)**

- Farmhouse split-off from large agricultural parcels
- Small vacant lots split off from large agricultural parcels
- Manufactured homes
- Seasonal dwellings for agricultural production and processing workers
- Boardinghouses
- “Tiny homes”
- Impervious surface allowance flexibility



## Things Still To Do, Zoning-Related

- Identify, with municipalities, any areas or lots that could be (re)developed, rezoned for housing
- Review/revise zoning codes with incorporated municipalities
- Overhaul regulations for multi-family developments (density continuum, lot size, permit types)
- Decrease minimum home size requirements
- Eliminate “seasonal” component of housing allowances for agricultural workers
- Consider providing density incentives if developer is including affordable housing, employee housing, and/or using green building practices



## Next Steps

- Review/revision of zoning ordinance(s)
- Meetings with developers
- (Re)establishment of nonprofit housing trust
- Community discussions/meetings
- On-going discussions between DCEDC, municipal staff, local and regional nonprofits, local elected officials, state and federal agencies
  - Identification of sites
  - Identification of funds/incentives/tools to use
    - Necessary at front-end and/or back-end of projects, for developers and/or households.

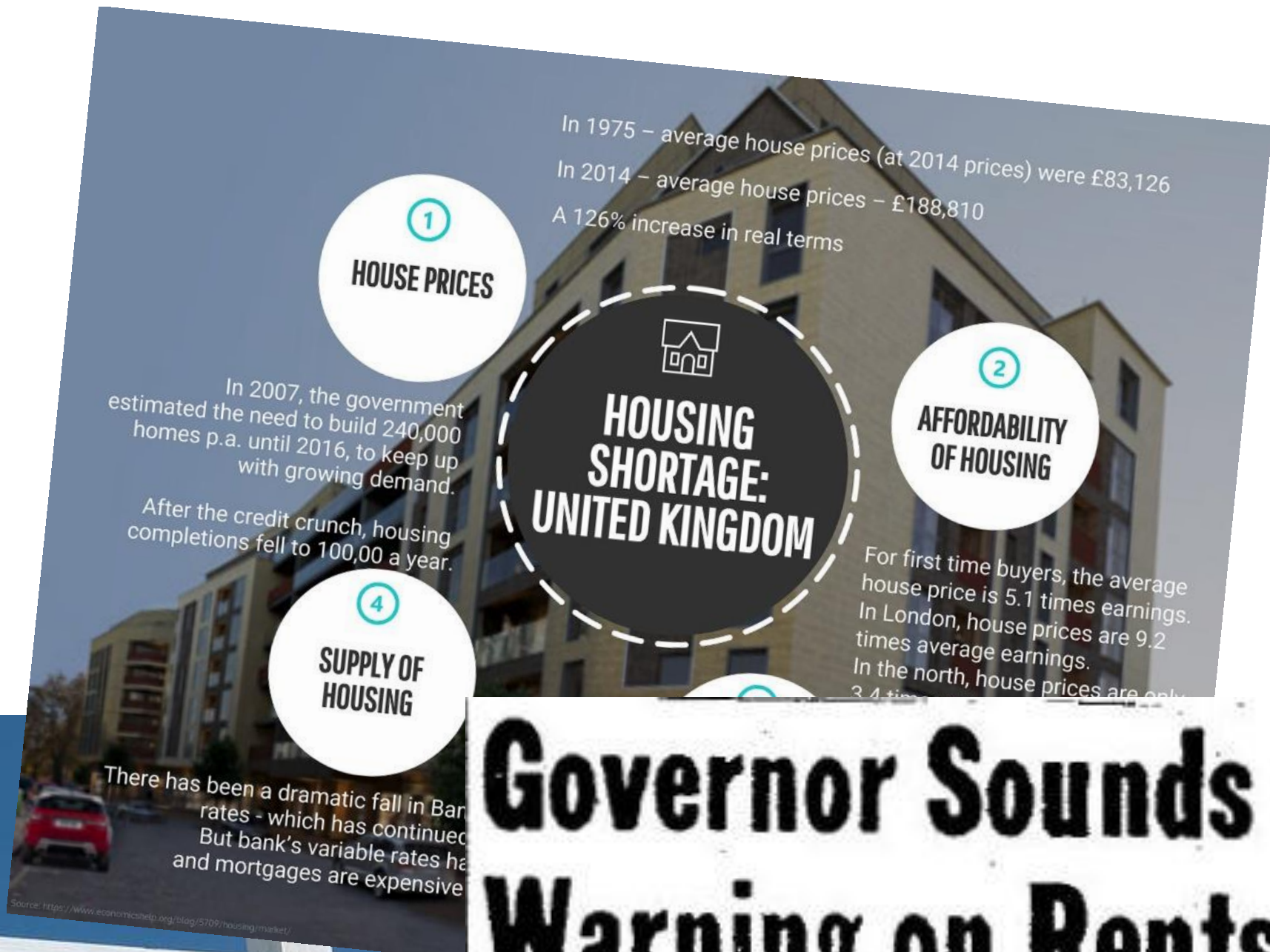
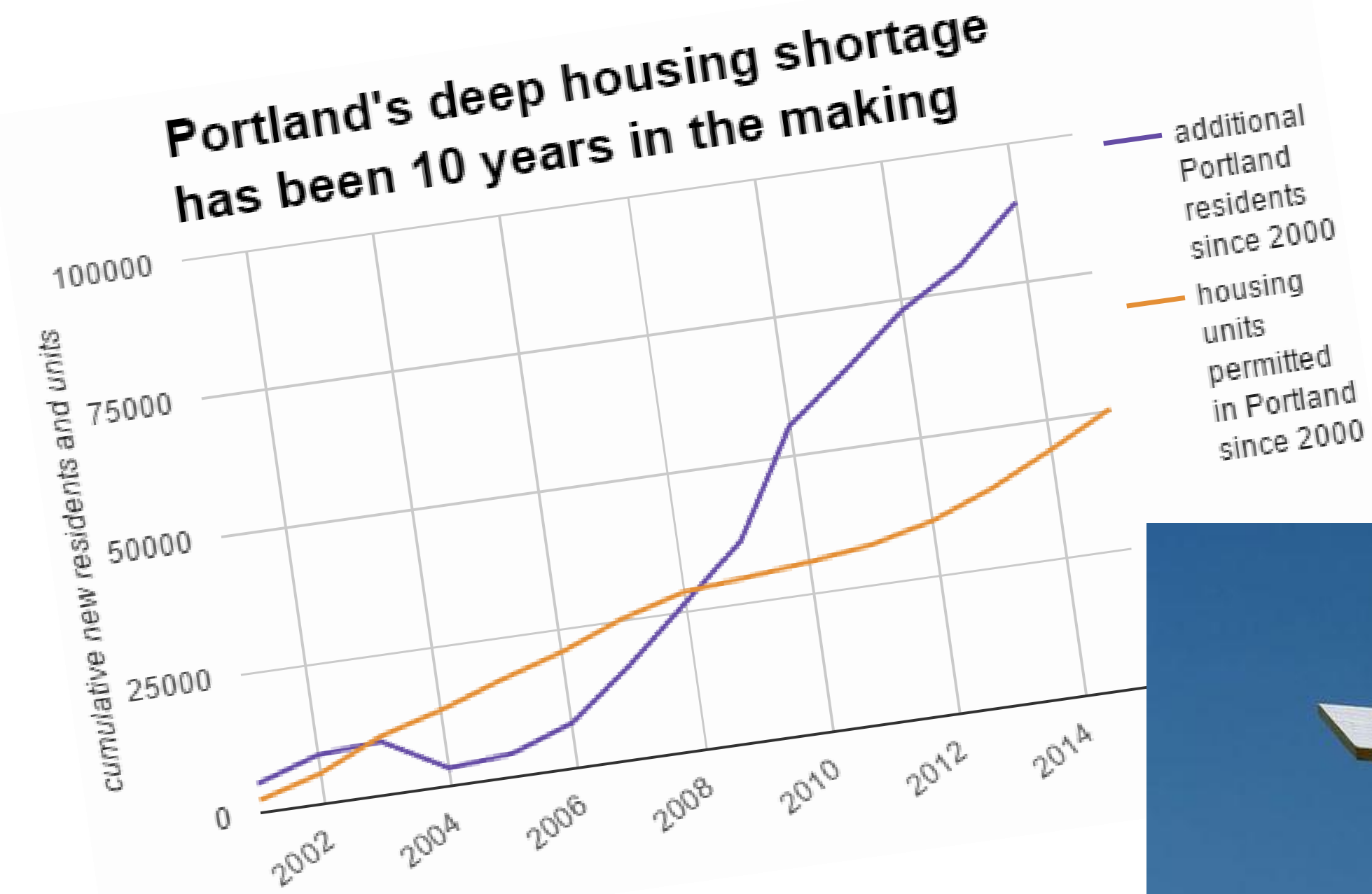






# **A HISTORY + FUTURE OF AFFORDABLE HOUSING**





## Governor Sounds Warning on Rents

Governor Knous warned yesterday there still is a possibility he will call a special session of the Legislature to curb skyrocketing rents in the state.

The governor said if complaints continue to pour into his office he may poll members of the Legislature to get their reactions on the calling of a special session.

Chief supporters of special legislation to establish state rent control are members of the Colorado Rent Control Conference who are headed by State Sen. Arthur A. Brooks (R) of Denver.

# The Global Housing Crisis

1. RICHARD FLORIDA  
2. BENJAMIN SCHNEIDER  
APR 11, 2018

Scarce, unaffordable housing is not a local problem in a few places, but is baked into the 21st-century global city. It's time for cities, nations, and global leaders to start acting like it.



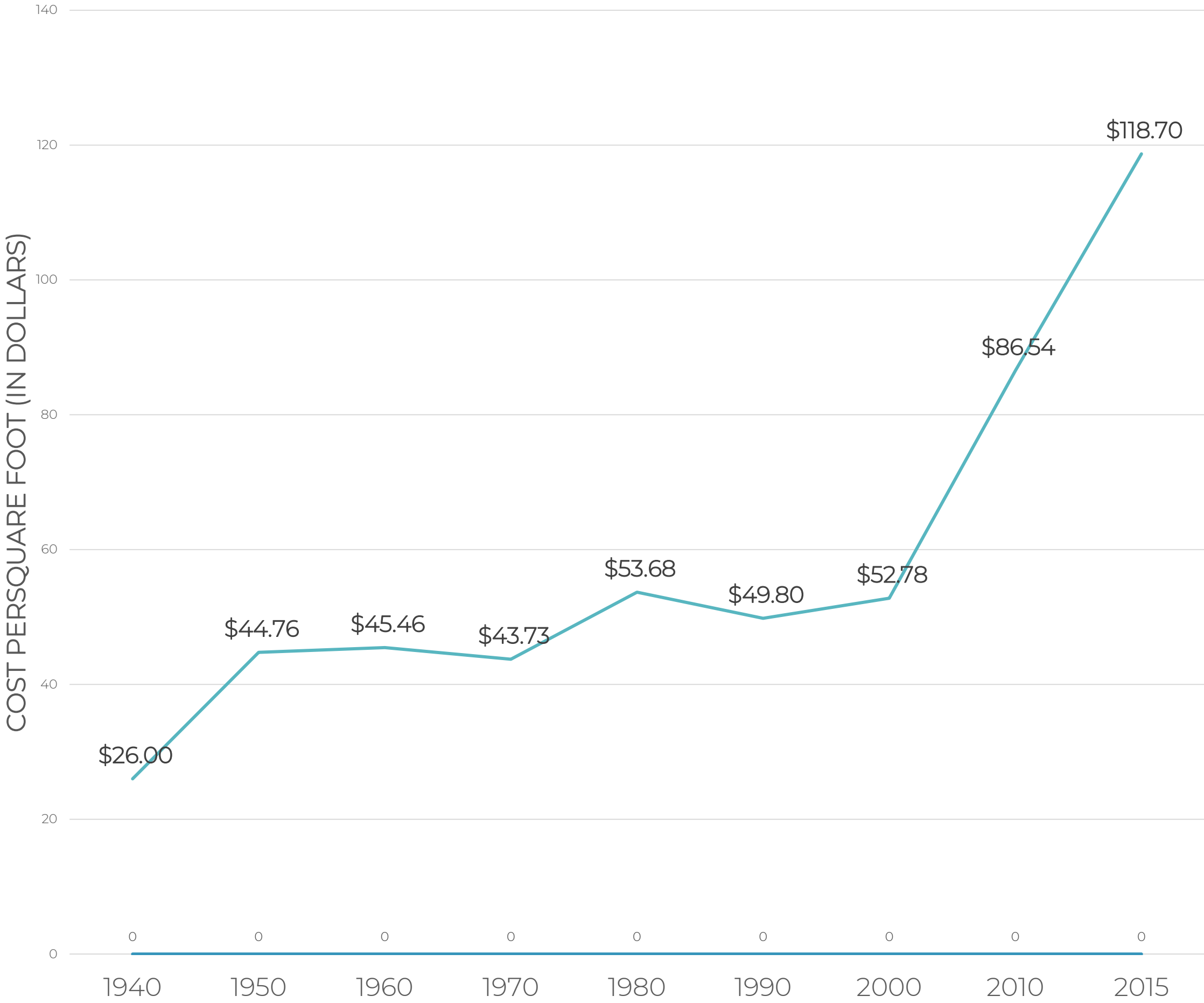
CONSTRUCTION COST PER SQUARE FOOT

Since 1950, the average cost of construction in the U.S. has risen from \$44.75 per square foot to \$118.70 per square foot.\*

The highest jump has occurred since 2000. HGTV was introduced in the mid 1990s, and Houzz.com was launched in 2009, both impacting consumer choices in higher-cost amenities.

Housing bubble burst and U.S. entered recession in 2008.

\*in today's dollars



## Why are our Homes Now More Costly?

### TYPICAL AFFORDABLE HOME: 1950s-1970s

- 1-2 BATHROOMS
- MODEST KITCHEN
- CARPET & VINYL FLOORING
- BASIC APPLIANCES
- BASIC WINDOW PACKAGE
- SINGLE-LOAD CLOSETS
- 5000 SF URBAN LOT SIZE

### TYPICAL HOME: 1980-PRESENT

- 2-3+ BATHROOMS
- “COOK’S KITCHEN”
- WOOD & TILE FLOORING
- ENHANCED APPLIANCES
- MORE & BETTER WINDOWS
- WALK-IN CLOSETS
- 8500+ SF URBAN LOT SIZE



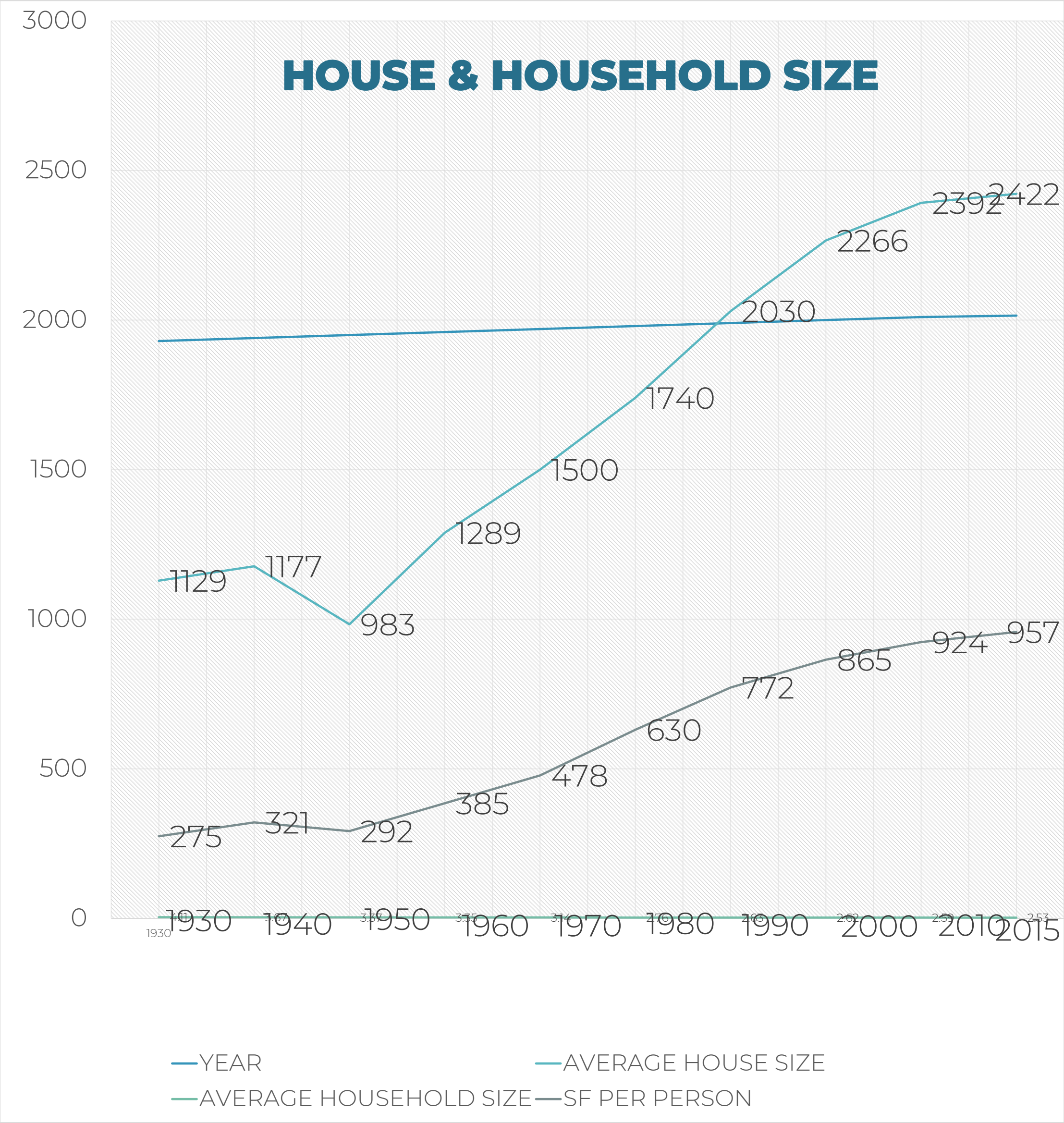
## **ADDITIONAL FACTORS AFFECTING HOUSING COSTS**

- Housing Bubble & 2008 Recession
  - Causing Lack Of Spec Houses
- Shrinking Labor Force
- Tariffs And Trade Wars
- Homes Converted to AirBnB, VRBO to Augment Household Income
- Increasingly Powerful Storms And Fires Destroying Current Housing Stock

Since 1950 the size of average U.S. houses has risen from 983 square feet to the current size of nearly 2500 square, while the size of average U.S. households has shrunk from 3.37 to 2.53.

The overall square footage per person has risen in the same period from 292 to 957, a **328% increase**.

The average square foot per person throughout Europe is 538 square feet.



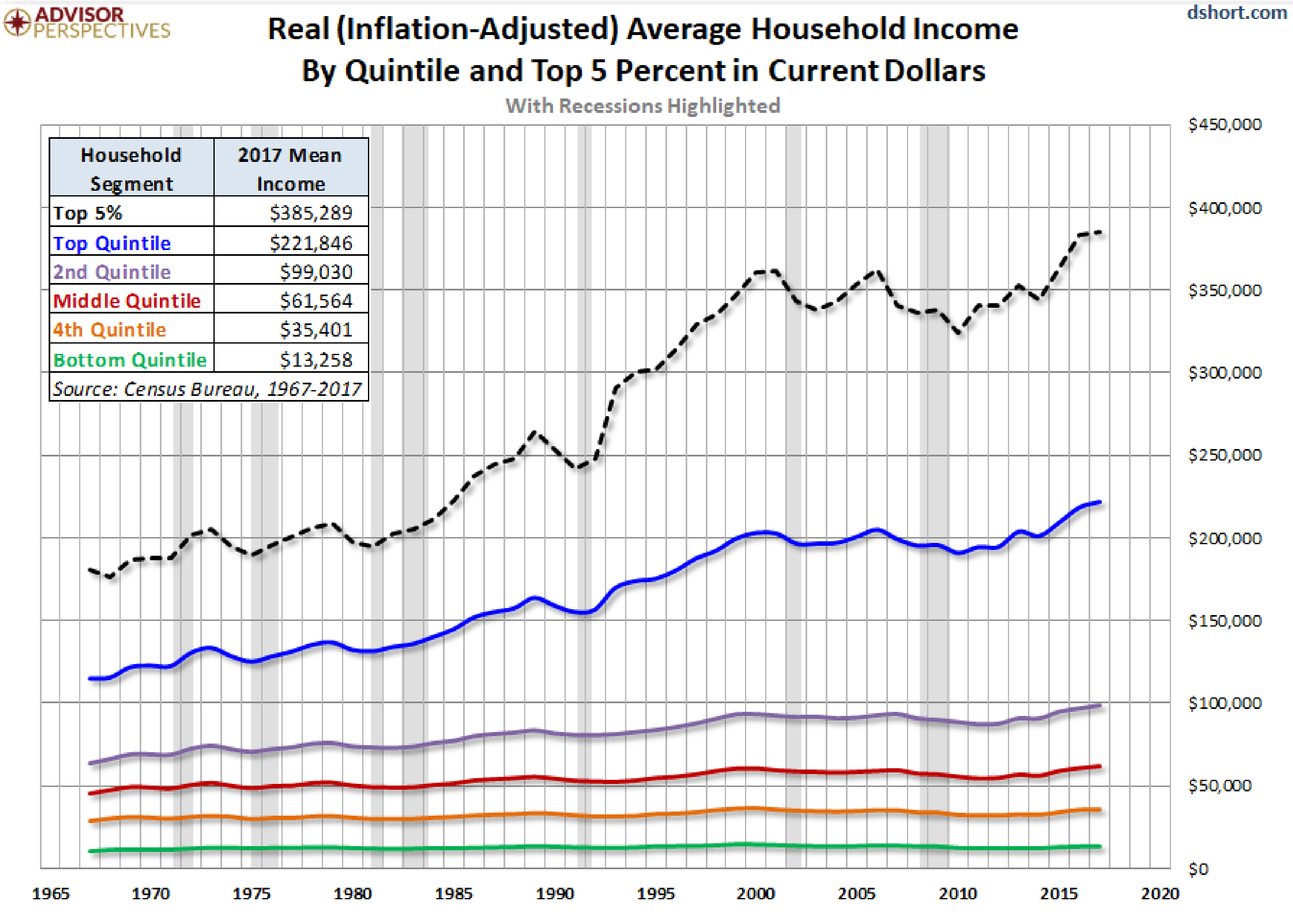


Middle household income has remained nearly flat since 1970.

Today’s Wisconsin average household income = \$59,305.

Rule of thumb:  
mortgage = 3X annual income.

House mortgage for average Wisconsin household = \$177,915 (house & lot)





- Average house size: 864 sf
- Average lot size: 50'X100'
- Built of 4' module design
- 1-car garage

## 1940S ANSWER TO HOUSING SHORTAGE





1940s: the birth of  
automobile-based society:

- Sidewalks eliminated.
- Alleys eliminated
- Grid-based planning.
- Homogeneous house designs.





## TODAY'S CHALLENGE:

ABOUT **3 BILLION PEOPLE**, OR 40 PERCENT OF THE WORLD'S POPULATION, WILL NEED NEW HOUSING BY 2030. THAT WILL REQUIRE CONSTRUCTING APPROXIMATELY **21 MILLION** NEW HOMES EVERY YEAR ACROSS THE WORLD.

## WHAT KINDS OF HOMES WILL THEY BE?



*“The choices of where and how affordable homes are constructed and maintained can make the difference between improving quality-of-life for low-income and vulnerable families, or further burdening them with costs and social isolation. One critical choice is the efficiency of the housing. **Energy-efficient housing is more affordable** over its lifetime than non-efficient buildings. And when benefits beyond direct costs are accounted for—like improved health, increased productivity, new jobs and less pollution—the **benefits outweigh the costs many times over.**”*

-World Resources Institute



## PLAN FOR THE FUTURE

Efficiently designed homes with small footprint

Compact zoning and lot sizes

Energy efficient, low-carbon construction



Small + Tiny Houses



TINY HOUSE: <250 SF; PORTABLE



800 SF; PREFAB



SMALL HOUSE: 300-1000 SF



## Co-Housing

- Mixed-generation
- Mixed Income
- Small Private Dwelling
- Sharing Community Space
- Shared Tasks:
  - Cooking
  - Gardening
  - Maintenance
  - Child Care
  - Elder Care





## Local Affordable Housing Programs



**NEIGHBORWORKS-GREEN BAY**

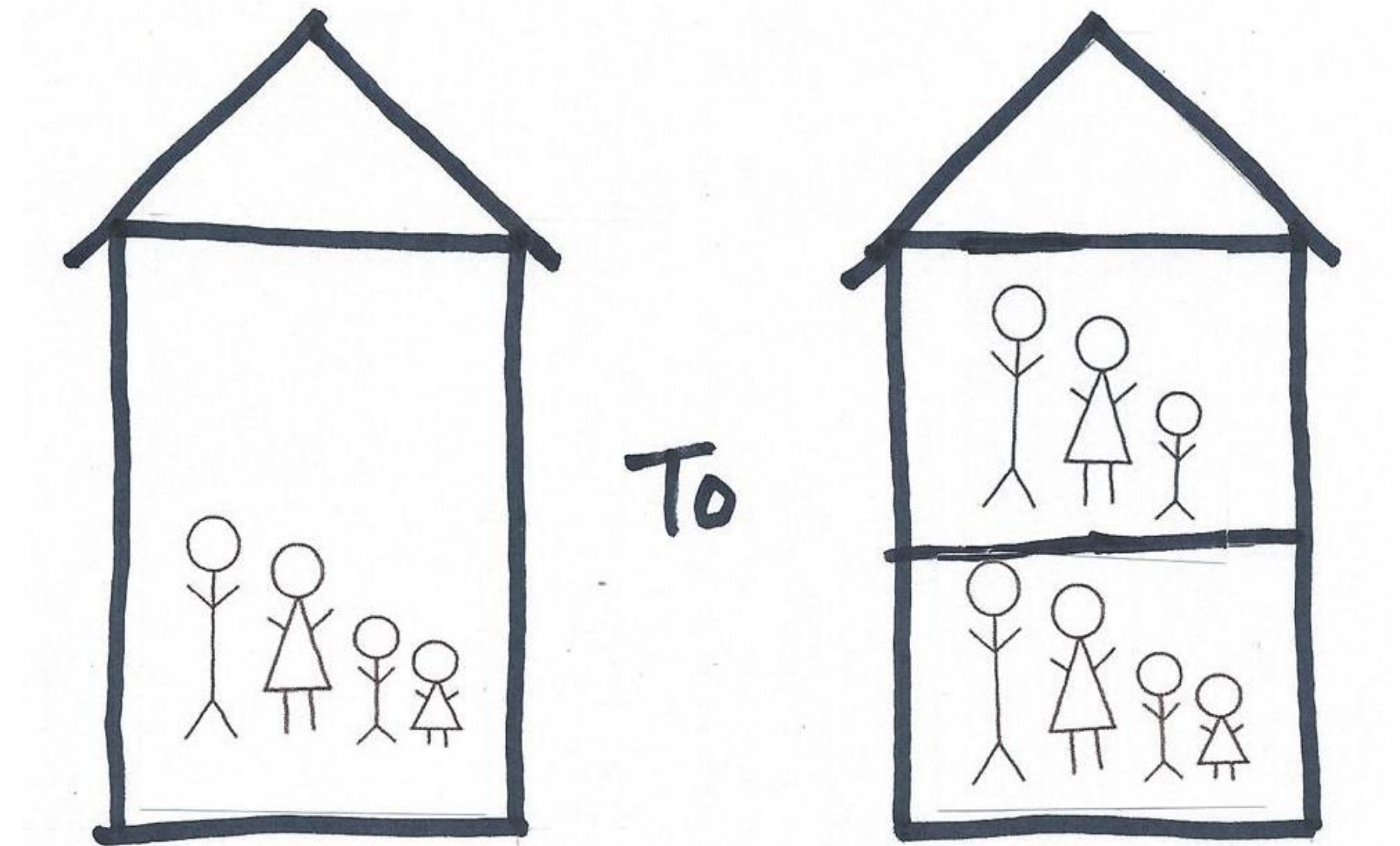


**GREEN BAY REHAB:  
CITY-SUPPORTED**



## Housing Conversions

- SINGLE FAMILY TO MULTI-FAMILY
- COMMERCIAL BUILDING SECOND FLOORS TO APARTMENTS





## Urgent Need for Energy Efficient Housing

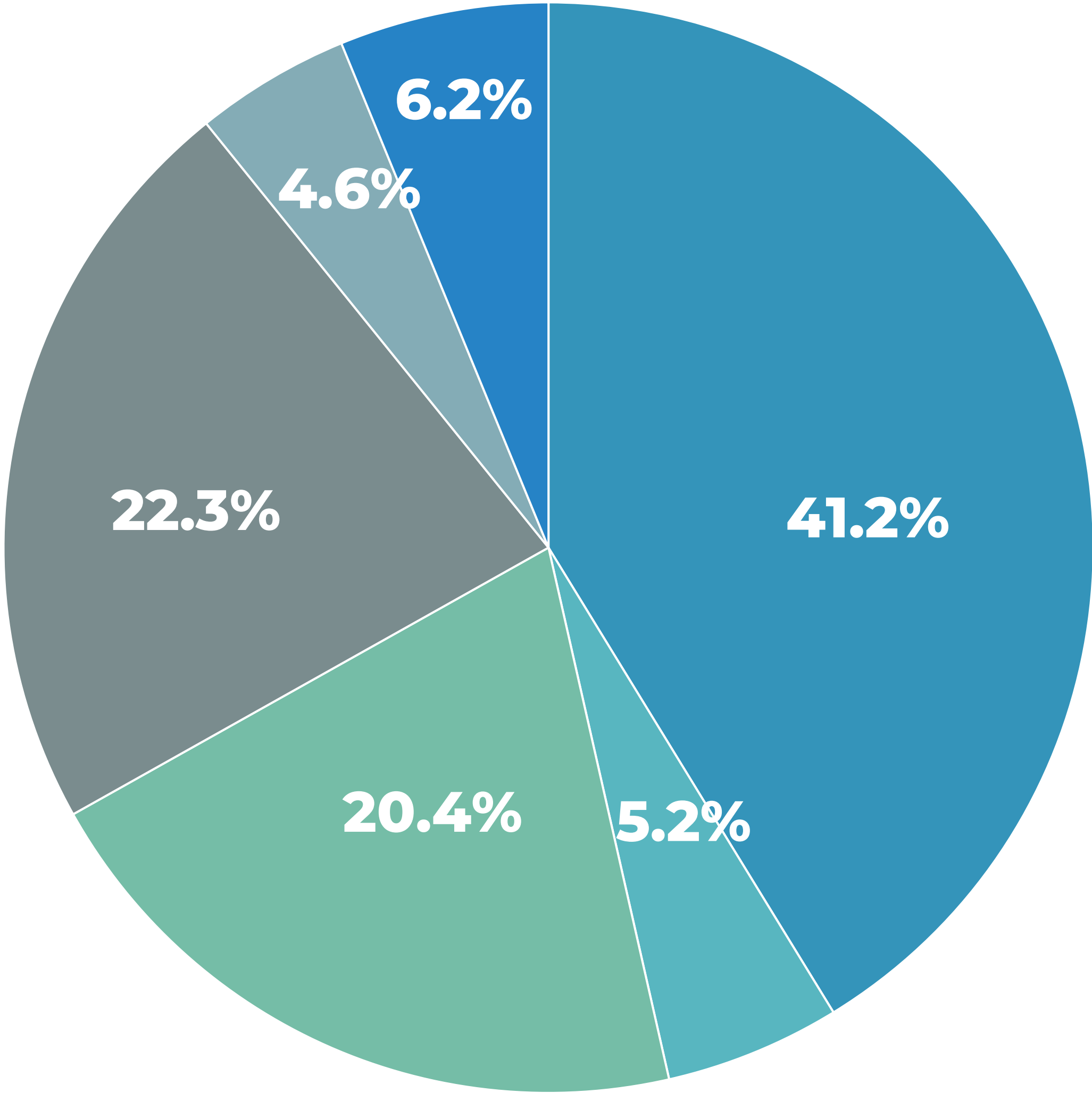


- Poor housing quality and low incomes contributes to **fuel poverty**...
- For low-income households this cost...can be as high as a fifth of household income and more than a quarter of total housing costs.
- Mean residential energy expenditures increased by **27 percent** from 2001 to 2005, to \$1,522, and by almost **20 percent** to \$1,822 by fiscal year 2009.
- For that reason, improving energy efficiency has been pointed out as one of the challenges for American housing by the Joint Center for Housing Studies.



**BUILDINGS CONTRIBUTE OVER  
30% OF ATMOSPHERIC CO2:  
CONSTRUCTION, ELECTRICAL,  
HEATING AND COOLING**

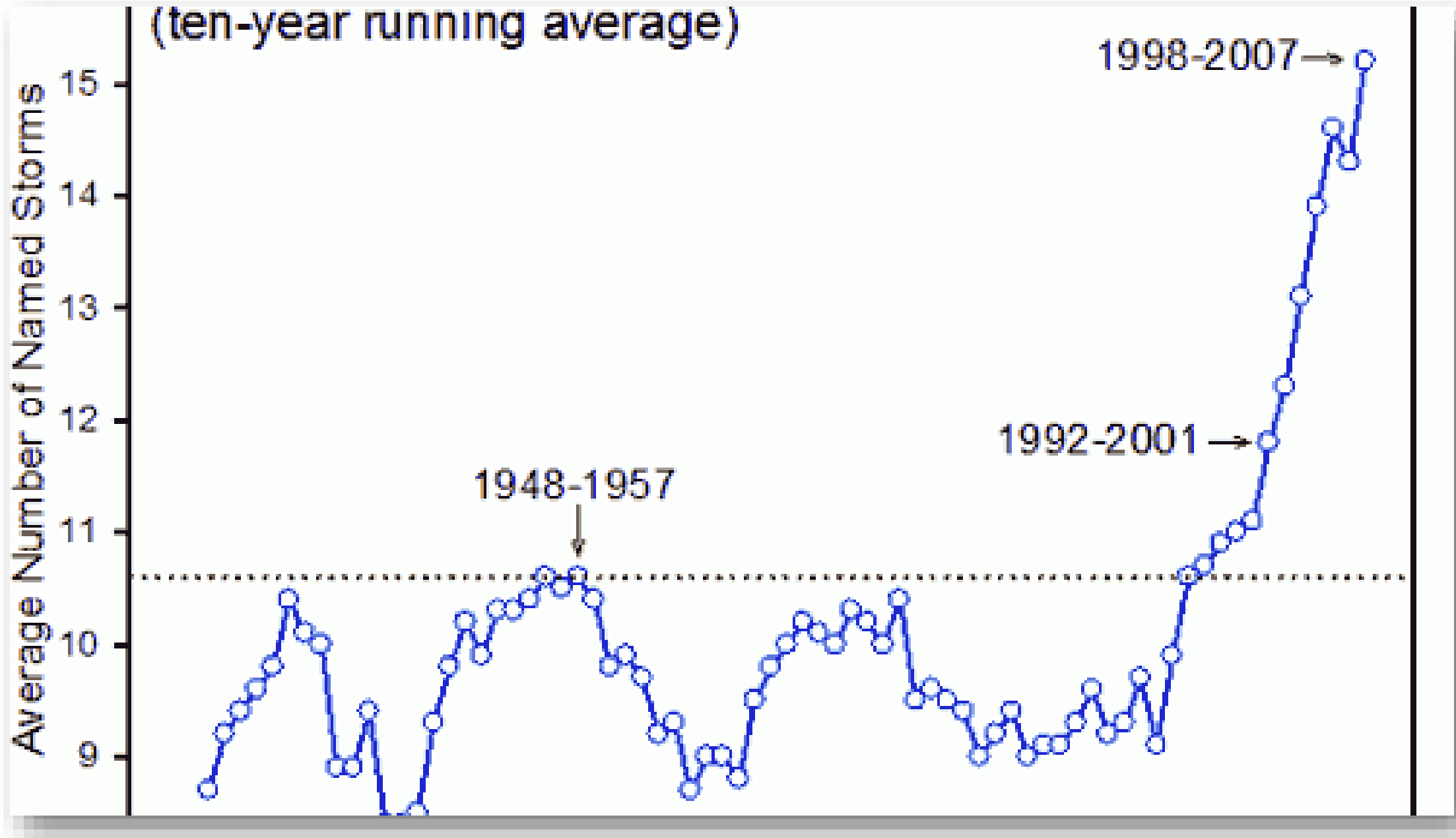
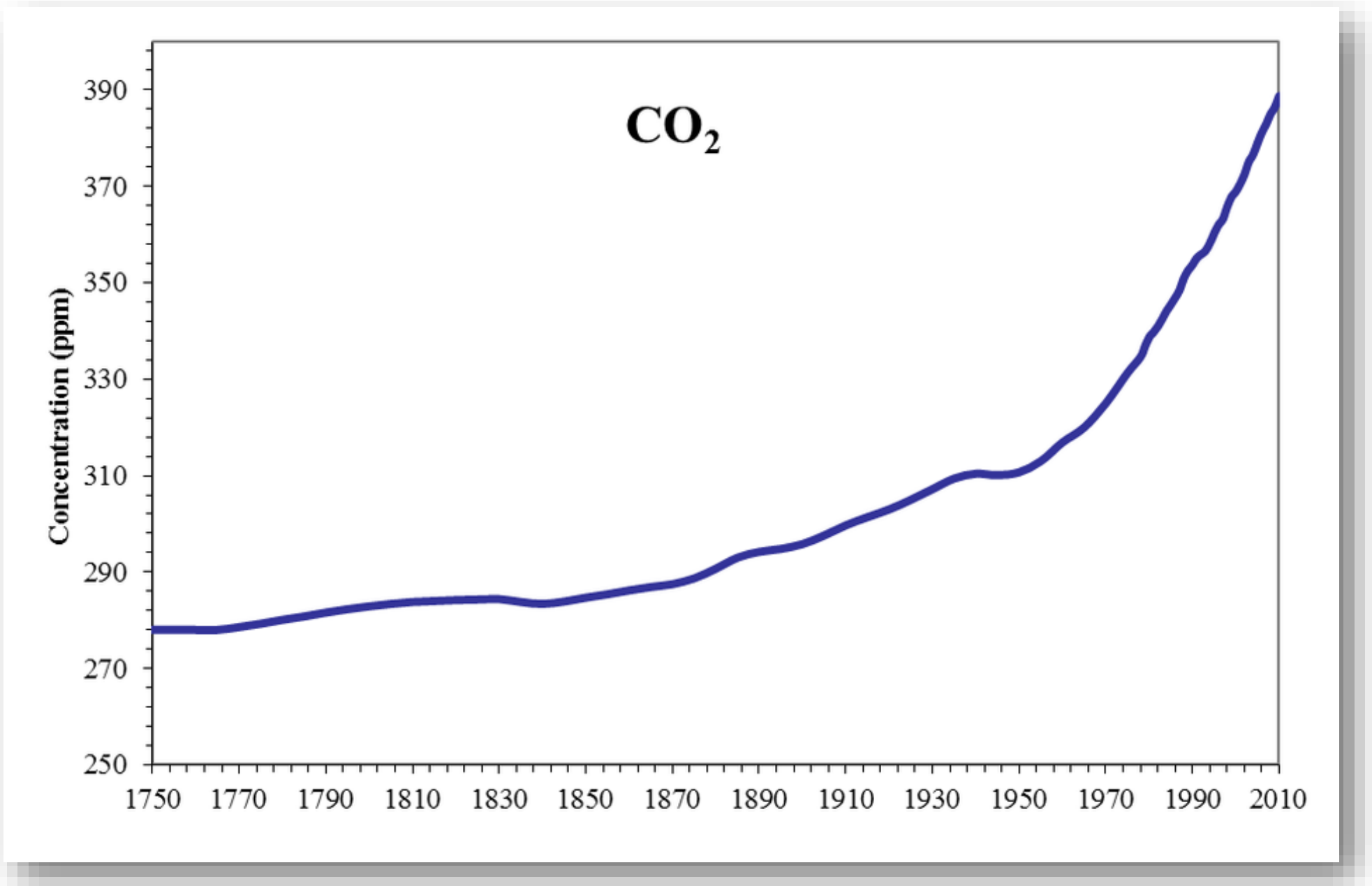
**CO2 Emissions by Production Sector**



- Electricity + Heat Production
- Other Energy Industry Own Use
- Industries + Construction
- Transport
- Other Sectors, Not Residential
- Residential

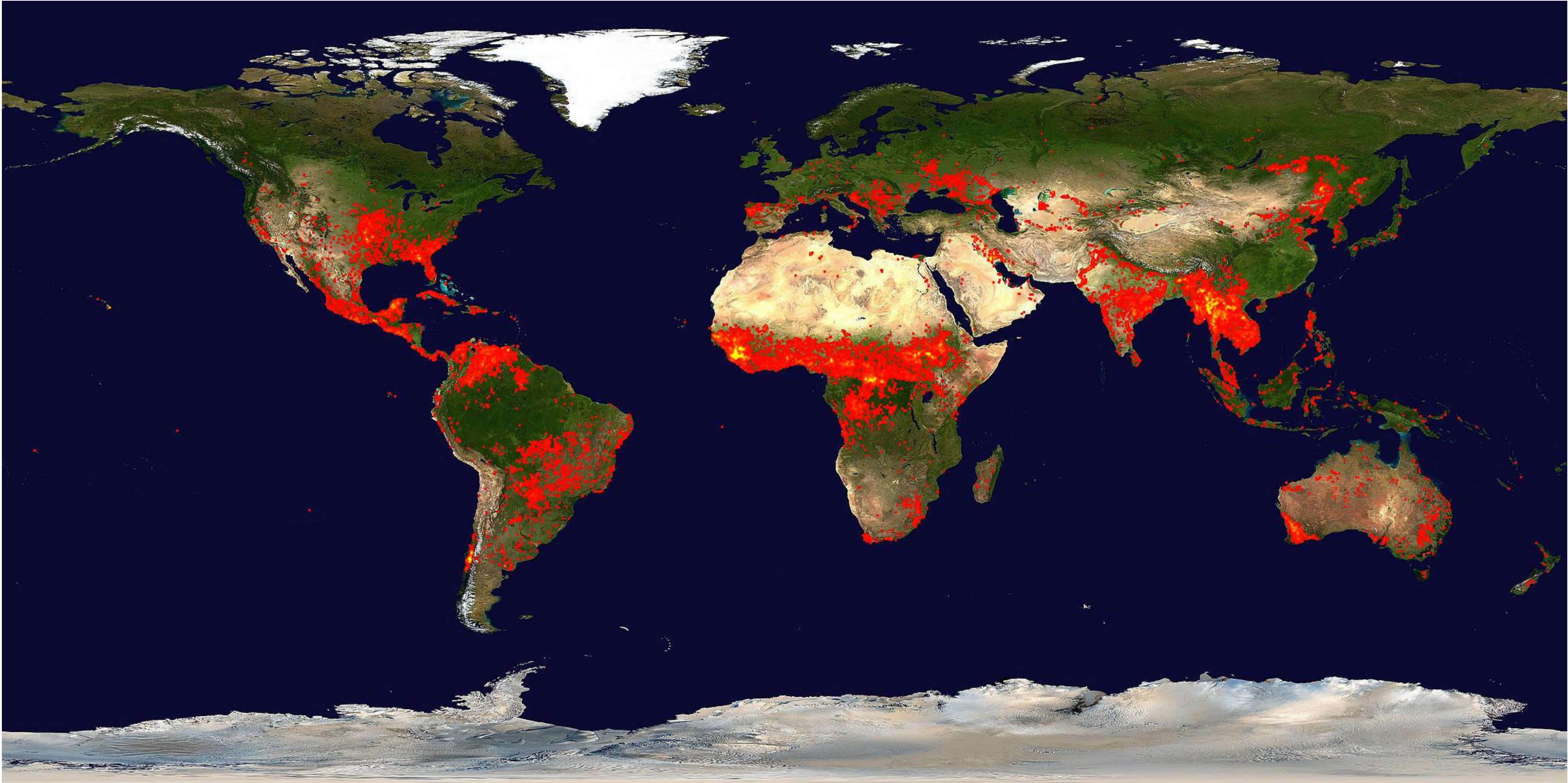


# Housing Impact on Global Resiliency





# Global Wildfires





## A ROADMAP TO BUILDING AFFORDABLE ZERO ENERGY HOMES

POSTED ON APRIL 24, 2018 BY BRUCE SULLIVAN (ZEROENERGYPROJECT.ORG)

Keep it small. Start planning at about **300 square feet per person**.

Reduce complexity. **Simple shapes** without architectural intricacy are cheaper to build, insulate, and air seal.

**Stretch living spaces.** Include outdoor areas such as porches, balconies, and gardens.

Include extra storage space in the unconditioned garage and under stairwells.

**Optimize design.** Use a computer energy model to get the most cost-effective balance of architecture, building shell, equipment efficiency, and solar technology.

**Site for solar gain. Orient the building** so that roughly half of the window area faces within 30° of south.



## Pathways to Energy Efficient Housing

- **Focus on Energy:** requires third party testing. Home energy performance estimated at 15% better than code
- **DoE Zero Energy Ready Homes program:** 40-50% better than code
- **LEED:** comprehensive sustainability planning, with points earned for size, location, water & energy savings
- **Passive/WUFI:** modeling & construction methodology to create 90% better efficiency than code
- **The Living Building Challenge:** “petals” earned for water, energy, site, etc. “Buildings give more than they take”



## DOOR COUNTY LEGACY: SMALL HOMES IN NATURE





## Certified Passive House



- CONSUMES APPROXIMATELY 90% LESS ENERGY TO HEAT AND COOL
- HEALTHIER
- LOWER CARBON FOOTPRINT





## ENERGY EFFICIENT VS STANDARD CONSTRUCTION

(VTA CASE STUDIES :2400 SF HOME)

### STANDARD CONSTRUCTION

- 2X6 walls w/ R19 insulation
- R34 Roof
- R10 foundation
- Standard air sealing
- ResCheck energy modeling
- Standard HVAC (80,00 Btuh)
- Construction Cost: \$353,031
- 30-year mortgage pmts: \$2011

### HIGH-EFFICIENCY CONSTRUCTION

- 2X12 double stud walls w/ R45 insulation
- R64 roof
- R20 foundation
- Passive House energy modeling
- High-Efficiency HVAC (11,200 Btuh)
- Construction cost: \$370,683
- 30 year mortgage pmts: \$2107
- Estimated Energy Savings/month: -\$128
- Net savings per month: \$32

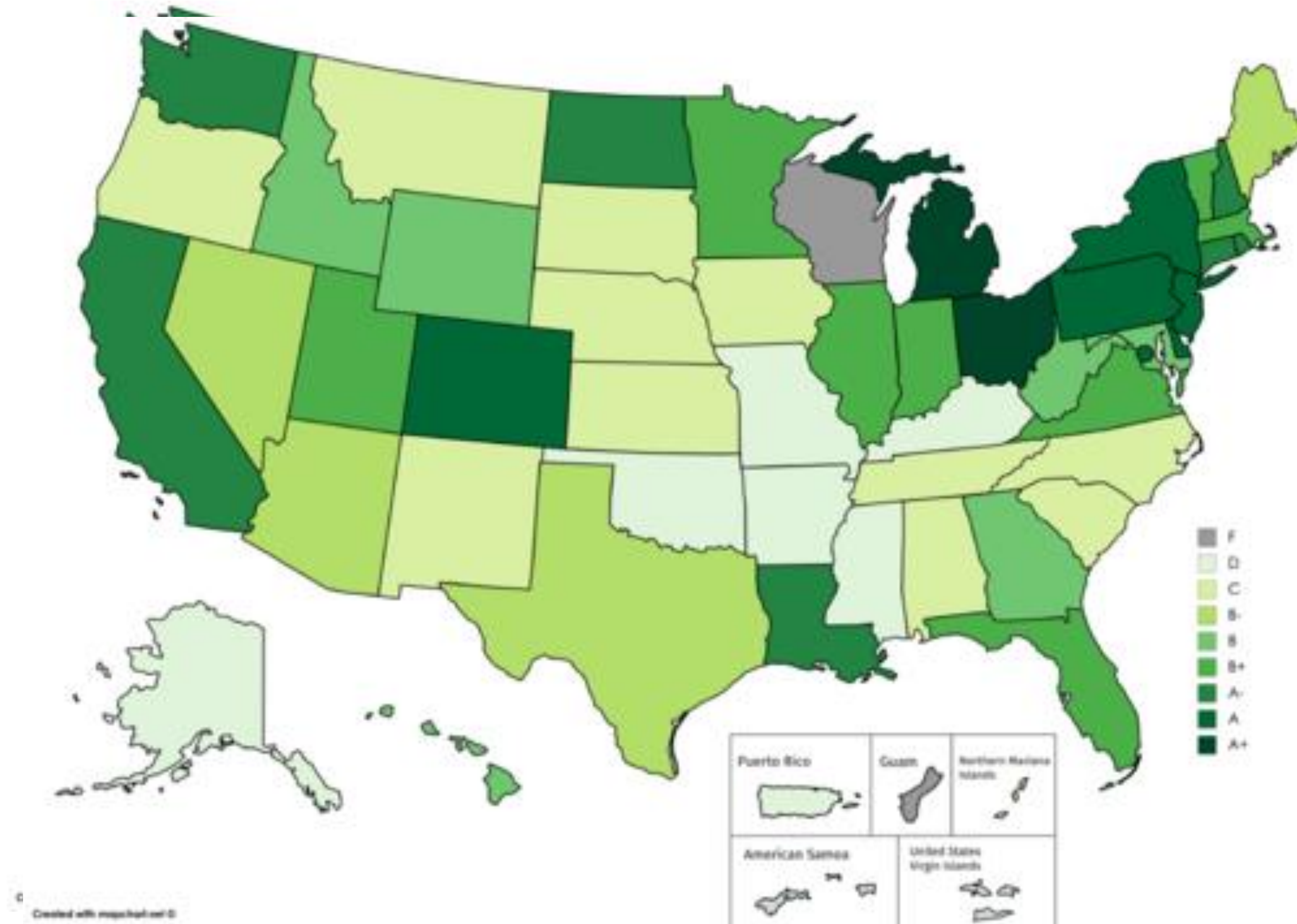
## Financing for Enhanced Energy Performance

- *...”even though LMI households spend less on energy bills overall, they spend nearly 15 percent more per square foot on energy (\$1.09 per square foot for those making under \$60,000, compared to \$0.95 per square for those making \$60,000 or more per year) (Energy Information Administration 2012).”*
- PACE program (for commercial and multi-family)
- Wisconsin Focus on Energy
- Fannie Mae HomeStyle Energy program for retrofits (saves average of \$145/year on utility bills)



## 2018 Global Green Grades States for Green Building Practices in Low Income Housing, 29% of US States Scored an A

Wisconsin was the **only** state receiving an **F**.



# We have nowhere to go but up.



**THANK YOU**